

ALTURA

ENGINEERING & DESIGN

Health and Safety Manual

Provided By:



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Updated: October 2024

Reviewed: October 2024

Revised: October 2024

Health and Safety Altura Engineering and Design, LLC. by R2M Engineering

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Table of Contents

Table of Contents

SAFETY AND HEALTH POLICY STATEMENT	19
SAFETY AND EDUCATION TRAINING PROGRAM.....	21
TRAINING TOPICS	21
TRAINING DOCUMENTATION.....	21
SAFETY AND HEALTH COMMUNICATION.....	21
REPORTING OF SAFETY AND HEALTH HAZARDS	22
POSTINGS.....	22
TRAINING.....	22
EMPLOYEE SAFETY HANDBOOK.....	22
SAFETY COMMITTEE.....	22
HAZARD IDENTIFICATION AND COMMUNICATION.....	23
IDENTIFICATION OF WORKPLACE HAZARDS	25
SAFETY AND HEALTH REQUIREMENTS	27
ACCIDENT AND INCIDENT REPORTING	27
FIRST AID AND MEDICAL TREATMENT.....	27
NON-EMERGENCY MEDICAL TREATMENT.....	27
EMERGENCY MEDICAL TREATMENT.....	28
FIRST AID TRAINING	28
WORKERS' COMPENSATION.....	28
EMPLOYEES' SAFETY RIGHTS	29
EMPLOYEES' SAFETY RESPONSIBILITIES.....	29
SAFETY HANDBOOK ACKNOWLEDGEMENT.....	31
EMPLOYEE SAFETY HANDBOOK.....	31
GENERAL SAFETY GUIDELINES.....	33
EMPLOYEE SAFETY GUIDELINES	33
GENERAL SAFETY RULES.....	33
Fire Safety	33
Hand and Power Tools	33
Personal Protective Equipment	34
Material Handling Safety Rules	34
Housekeeping	34
CELL PHONES.....	35
DISCIPLINARY POLICY AND PROCEDURE	37
STEPS OF PROGRESSIVE DISCIPLINE	37
Verbal Warning	37
WRITTEN WARNING.....	37
Suspension	38
TERMINATION.....	38
JOB SAFETY ENVIRONMENTAL ANALYSIS PROCEDURE.....	41
PURPOSE/SCOPE	41
DEFINITIONS	41
GENERAL REQUIREMENTS	42
KEY RESPONSIBILITIES.....	42
PROCESS	43
TRAINING	46

Table of Contents

RECORDS	46
FORMS	46
GUIDE FOR RISK CLASSIFICATION	47
FIRST AID AND CPR PROGRAM	49
RESPONSIBILITY	49
WRITTEN PROGRAM	49
FIRST AID RESPONSE ACTIONS.....	49
LEVELS OF FIRST AID TRAINING.....	49
Basic First Aid	49
Basic First Aid Responders	50
TRAINING.....	50
First Aid CPR.....	50
MAJOR EMERGENCY REPORTING	50
Emergency Numbers.....	50
In-House Notification.....	50
Directing Ambulance Services.....	50
MINOR EMERGENCY REPORTING	51
First Aid Log of Activities.....	51
First Aid Kits	51
Eyewashes and Deluge Showers	51
BLOODBORNE PATHOGENS	53
WHAT EVERYONE NEEDS TO KNOW	53
Workplace Transmission.....	53
HIV (AIDS).....	53
Hepatitis.....	54
GUIDELINES FOR HANDLING BLOOD AND OTHER BODILY FLUIDS.....	55
HOW SHOULD BLOOD AND BODILY FLUID SPILLS BE HANDLED?.....	55
Universal Precaution.....	55
Remote Handling	55
Hand Washing.....	55
Disinfectants	56
Disinfecting Hard Surfaces and Caring for Equipment	56
Laundry Instructions for Clothing Soiled with Bodily fluids.....	56
RECORDKEEPING.....	56
Transfer of Records.....	56
EXPOSURE DETERMINATION	56
TRAINING.....	58
EMERGENCY ACTION PLAN	59
EMERGENCY ACTION PLAN OVERVIEW.....	59
EMERGENCY RESPONSIBILITIES	60
Workers.....	60
Supervisors.....	60
Emergency Action Coordinator	60
Office Manager	60
Site Manager	60
Emergency Action Team	60
FIRE REPORTING AND PROCEDURES.....	61
EVACUATION	61
BOMB THREAT	62
FIRST AID	62
HAZARDOUS MATERIAL SPILL.....	62
TRAINING.....	64

Table of Contents

Evacuation Practice Drills	64
Evacuation Routes.....	64
EMERGENCY PHONE NUMBERS	64
PROPERTY MANAGEMENT – MAINTENANCE	64
EMERGENCY REPORTING AND EVACUATION PROCEDURES	64
Medical Emergencies	64
Fire Emergency	65
SEVERE WEATHER AND NATURAL DISASTERS	66
Tornado Preparation and Emergency	66
Indoor Floods	67
Outdoor Floods	67
Blizzard.....	68
Extended Power Loss	68
CHEMICAL SPILLS.....	69
CRITICAL OPERATIONS	69
EMERGENCY EVACUATION: MAP 26 TH FLOOR	71
EMERGENCY EVACUATION: MAP 1 ST FLOOR.....	73
FIRE SAFETY PLAN	75
FIRE PREVENTION	75
COMPANY FIRE EXITS	75
FIRE EXTINGUISHERS	76
Classification of Fires and Selection of Extinguishers.....	76
Location and Marking of Extinguishers	76
Condition of Fire Extinguishers	77
Mounting and Distribution of Extinguishers	77
Inspection and Maintenance of Extinguishers	77
EMERGENCY FIRE EVACUATION	77
EMPLOYEE TRAINING.....	79
FLAMMABLE AND COMBUSTIBLE MATERIALS.....	79
Substitution.....	79
Storage	79
Ventilation	81
Elimination of Ignition Sources	81
Removal of Incompatibles.....	81
Flammable Gases	81
FIRE SAFETY INSPECTIONS AND HOUSEKEEPING	81
EMERGENCY ESCAPE	81
FACILITIES DESIGN REVIEW	83
OCCUPANT EMERGENCY PLAN FOR PERSONS WITH DISABILITIES	83
EMERGENCIES INVOLVING FIRE.....	83
Fire Alarms	83
Evacuation Routes and Plans	83
Emergency Coordinators.....	83
Fire Emergency Procedures	84
HAZARD COMMUNICATION/GLOBAL HARMONIZATION SYSTEM (GHS)	85
CHEMICAL SAFETY PLAN.....	85
HAZARDOUS CHEMICALS INVENTORY.....	85
LABELING REQUIREMENTS	85
SAFETY DATA SHEETS (SDS)	86
EMPLOYEE TRAINING AND INFORMATION	86
GLOBAL HARMONIZATION SYSTEM (GHS).....	87
LABELS	88
Symbols/Pictograms	88

Table of Contents

Signal Words	88
Hazard Statements.....	88
Precautionary Statements and Pictograms.....	92
Product Identifier (Ingredient Disclosure).....	92
Supplier Identification.....	93
Supplemental Information	93
HAZARD IDENTIFICATION	95
IDENTIFICATION OF WORKPLACE HAZARDS	95
HAZARDOUS MATERIAL SPILL RESPONSE.....	97
OVERVIEW	97
Ignitables.....	97
Toxics	97
Caustics	97
Reactives.....	97
GENERAL WASTE MANAGEMENT	99
WASTE MINIMIZATION	99
Packaging	99
HOUSEKEEPING	99
MAXIMIZING PRODUCT USE	101
MATERIALS MANAGEMENT	101
MATERIAL DISPOSITION	101
Recyclable Material.....	101
Altura Engineering and Design Furnished Dumpsters.....	101
Subcontractor Furnished Dumpsters	101
Pick-up Frequency.....	101
Empty Containers.....	101
Non-Recyclable or Refuse Materials	102
PERSONAL PROTECTIVE EQUIPMENT (PPE).....	103
REPLACEMENT PPE.....	103
RESPONSIBILITIES.....	103
HAZARD ASSESSMENT	103
SELECTION OF PERSONAL PROTECTIVE EQUIPMENT	104
TRAINING.....	104
CARE OF PERSONAL PROTECTIVE EQUIPMENT	105
EQUIPMENT SPECIFICATIONS AND REQUIREMENTS	105
Eye and Face Protection.....	105
Specifications	106
Description and Use of Eye or Face Protectors.....	106
Emergency Eyewash Facilities.....	106
Hearing Protection	107
Respiratory Protection	107
Head Protection	108
Hand Protection	108
Safety Shoes.....	110
HEARING CONSERVATION PROGRAM	111
RESPONSIBILITIES.....	112
Safety Coordinator	112
Supervisors.....	112
Employees.....	112
NOISE EVALUATION AND SURVEILLANCE PROCEDURES	112
Identification of Hazardous Noise Areas.....	112

Table of Contents

Noise Measurements and Exposure Assessments	114
Area Measurements.....	114
Personnel Monitoring	114
Re-Monitoring of Hazardous Noise Areas.....	114
Re-Monitoring Due to Changes.....	115
NOISE CONTROL METHODS	115
Engineering and Administrative Controls	115
Personal Protective Equipment	115
Types of Hearing Protective Devices (HPDs)	115
Selection of Hearing Protective Devices	116
Issuance of Hearing Protective Devices	116
Use of Hearing Protective Devices.....	116
Maintenance of Hearing Protective Devices.....	116
Hearing Protection Performance Information	116
MEDICAL SURVEILLANCE	117
Audiometric Testing.....	117
TRAINING	117
Program Evaluation.....	118
RECORDKEEPING.....	119
NOISE.....	119
RESPIRATORY PROTECTION PROGRAM.....	121
RESPONSIBILITIES.....	121
CONTRACTORS	122
SELECTION.....	122
MEDICAL EVALUATIONS	123
FIT TESTING.....	123
SEAL CHECK.....	124
SPECIAL PROBLEMS	125
TRAINING	125
INSPECTION	127
LOCATION AND STORAGE OF RESPIRATORS	127
TYPES OF RESPIRATORS.....	127
Air-Purifying Respirators (APR)	127
Supplied-Air Respirators	128
Demand Respirators	128
Pressure Demand Respirators.....	128
Continuous Flow Respirators	128
Self-Contained Breathing Apparatus (SCBA)	128
Voluntary Use of Air-Purifying Respirators	128
Filtering Face Piece Respirator (Dust Mask).....	128
Cloth Face Coverings.....	130
IDENTIFICATION OF RESPIRATOR CARTRIDGES AND GAS MASK CANISTERS	130
WARNING SIGNS OF RESPIRATOR FAILURE.....	130
Particulate Air-Purifying	130
Gas or Vapor Air-Purifying	132
SERVICE LIFE OF AIR-PURIFYING RESPIRATOR CANISTERS AND CARTRIDGES.....	132
Cartridge Change Out.....	132
MAINTENANCE OF RESPIRATORS.....	132
Cleaning of Respirators	132
ISSUANCE OF RESPIRATORS	133
IDLH ATMOSPHERES.....	133
PANDEMIC AND COVID-19 RESPIRATORY DISEASE PREVENTION AND RESPONSE PLAN	134
	139

Table of Contents

COVID-19 ADDITIONAL GUIDANCE (AS 1-29-2021)	139
HYDROGEN SULFIDE (H₂S) SAFETY	141
PURPOSE	141
HAZARD RECOGNITION	141
MONITORING	142
HAZARD CONTROL	142
PERSONAL PROTECTIVE EQUIPMENT.....	142
TRAINING MINIMUM CONTENT	143
RECORDKEEPING.....	143
CONFINED SPACE POLICY	145
DEFINITIONS	145
IDENTIFICATION OF PRCSS	146
WARNING SIGNS	146
EVALUATION OF PRCS CONDITIONS	146
REVIEW OF PRCS PROGRAM	147
CONFINED SPACE SAFETY PLAN	147
RECLASSIFYING A PERMIT-REQUIRED CONFINED SPACE TO A NON-PERMIT CONFINED SPACE	148
RESCUE AND EMERGENCY SERVICE.....	148
ENTRY RESCUE	148
TRAINING	148
WORKING WITH CONTRACTORS.....	149
RESPONSIBILITIES.....	149
OSHA 300 LOGS	151
FIRST AID.....	152
NON-RECORDABLE	153
Documentation	153
OSHA 300 LOG.....	155
OSHA 300A SUMMARY.....	157
OSHA INSPECTIONS	159
ADMITTING AN OSHA COMPLIANCE OFFICER	159
OSHA FACTS.....	160
OPENING CONFERENCE.....	160
THE WALK-AROUND INSPECTION	160
OSHA STANDARDS	161
QUESTIONS AN OSHA COMPLIANCE OFFICER MAY ASK.....	164
ADMINISTRATIVE INTERVIEW.....	164
JANITORIAL AND CHEMICAL STORAGE AREA OVERVIEW.....	165
GENERAL WORK AREAS OVERVIEW.....	166
EMPLOYEE AREA OVERVIEW	167
EMPLOYEE INTERVIEW	167
CLOSING CONFERENCE.....	168
POST INSPECTION ACTIVITIES	168
OSHA RECORDKEEPING AND POSTING REQUIREMENTS	168
RECORD RETENTION	168
COMMON OSHA VIOLATIONS	168
ACCIDENT INVESTIGATION PROGRAM	171
THE PURPOSE OF ACCIDENT INVESTIGATIONS.....	171
HOW TO INVESTIGATE AN ACCIDENT	172

Table of Contents

DRUG & ALCOHOL FREE WORKPLACE POLICY	175
PURPOSE	175
COMPANY POLICY.....	175
DRUG AND ALCOHOL SCREENING.....	176
NOTICE TO EMPLOYEES REGARDING WORKPLACE SEARCHES	176
NOTICE OF CONVICTION.....	176
STATEMENT OF EMPLOYMENT CONDITION	176
POST-ACCIDENT TESTING.....	176
INCEPTION DATES/DISCIPLINARY ACTIONS.....	177
ILLEGAL DRUGS	177
ALCOHOLIC BEVERAGES.....	177
PRESCRIPTION DRUGS.....	177
INHALANTS.....	177
FITNESS OF DUTY	177
MASS/RANDOM TESTING	177
ALCOHOLIC BEVERAGES.....	177
WORKPLACE SEARCHES	177
NOTIFICATION OF CONVICTION.....	177
DRIVING SAFETY POLICY	181
OFFICIAL VEHICLE USE.....	181
RESPONSIBILITY	181
SAFETY BELTS	181
ACCIDENTS AND MOVING VIOLATIONS.....	181
VEHICLE SAFETY POLICY	183
SAFETY PROCEDURES.....	183
DRIVER ELIGIBILITY.....	184
GENERAL SHOP AND WORK AREA SAFETY	185
RESPONSIBILITIES.....	185
SHOP PROCEDURES	186
PERSONAL PROTECTIVE EQUIPMENT.....	187
FACILITY LAYOUT	188
ILLUMINATION	189
EXITS AND EXIT MARKINGS.....	189
HOUSEKEEPING	190
FIRE PREVENTION	190
MATERIAL STORAGE.....	192
USE OF TOOLS.....	192
Hand Tools	192
Handles	192
Tangs	193
Mushroomed Heads.....	193
Portable Power Tools.....	193
Use of Compressed Air Sources	193
SHORT SERVICE EMPLOYEE PROGRAM.....	195
GENERAL POLICY	195
SHORT-SERVICE EMPLOYEE REQUIREMENTS.....	195
WORKING WITH EXPERIENCED CREWS	196
SUBCONTRACTOR MANAGEMENT PLAN.....	197
PURPOSE	197

Table of Contents

GENERAL REQUIREMENTS	197
PROCEDURE.....	197
EVALUATION SAFETY METRICS	197
EVALUATION RATING AND ACCEPTANCE.....	197
SUBCONTRACTOR INVOLVEMENT	198
THE INSURANCE REQUIREMENTS ARE AS FOLLOWS:.....	201
FITNESS FOR DUTY POLICY.....	209
PURPOSE	209
SCOPE	209
POLICY	209
CASE MANAGEMENT AND RETURN TO WORK	210
ADMINISTRATION	210
PROCESS SAFETY MANAGEMENT (PSM) – CONTRACTOR RESPONSIBILITIES PROGRAM	211
PURPOSE	211
GENERAL	211
SPECIFIC REQUIREMENTS.....	211
TRAINING.....	212
SAFE WORK PRACTICES.....	212
HOT WORK	212
MANAGEMENT OF CHANGE	212
INCIDENT INVESTIGATIONS.....	213
FATIGUE MANAGEMENT.....	215
PURPOSE	215
SCOPE	215
POLICY	215
ROLES AND RESPONSIBILITIES.....	215
Altura Management.....	215
Roles and Responsibilities of Employees	215
WORK HOUR LIMITATIONS TO CONTROL FATIGUE AND INCREASE MENTAL FITNESS.....	215
ANALYSIS OF WORK TASKS TO CONTROL FATIGUE.....	216
INITIAL AND ANNUAL TRAINING FOR WORKERS ON FATIGUE AND CONTROLLING FATIGUE	216
HEAT ILLNESS PREVENTION PLAN	217
PURPOSE	217
RECORD KEEPING	218
HEAT ILLNESS PREVENTION.....	218
HEAT CRAMPS	218
HEAT EXHAUSTION	218
HEAT STROKE	219
PRECAUTIONS TO PREVENT HEAT ILLNESS.....	219
ASBESTOS AWARENESS	221
PURPOSE	221
SCOPE	221
KEY RESPONSIBILITIES.....	221
Managers/Supervisors	221
All Employees	221
AWARENESS LEVEL REQUIREMENTS AND INFORMATION	221
Asbestos Exposure Control	221
Background of Asbestos.....	221

Table of Contents

Health Effects of Asbestos	222
Possible Locations Where Employees May Be Exposed to Asbestos During Their Job Functions.....	222
Types of Asbestos	222
Identifying Asbestos.....	222
GENERAL SAFETY PRECAUTIONS	223
MULTIPLE CONTACTOR WORKSITES	223
PERSONNEL AIR MONITORING	223
MEDICAL SURVEILLANCE PROGRAM	223
RESPIRATORY PROTECTION.....	225
WASTE DISPOSAL	225
TRAINING	225
BENZENE AWARENESS PROGRAM	227
GENERAL	227
RESPONSIBILITY.....	227
WRITTEN PROGRAM	227
HAZARD OVERVIEW	227
HEALTH EFFECTS	228
DOT OVERVIEW.....	228
GENERAL REQUIREMENTS	228
Facility Evaluation	228
Regulated Areas	228
PPE	228
EMPLOYEE NOTIFICATION AND SIGNAGE	228
TRAINING	229
Types of Training	229
Initial Training	229
LEAD AWARENESS	231
PURPOSE	231
RESPONSIBILITIES.....	231
Managers and Supervisors.....	231
Safety Manager.....	231
Employees.....	231
TRAINING	231
HEALTH EFFECTS OF LEAD	231
LOCATIONS.....	233
GENERAL REQUIREMENTS	233
GENERAL WORK PRACTICES.....	233
EMPLOYEE NOTIFICATION.....	234
MEDICAL SURVEILLANCE PROGRAM	234
AMMONIA AWARENESS PROGRAM.....	235
PURPOSE	235
DEFINITION	235
Some Chemical/Physical Properties of Ammonia	235
Ammonia is Widely Used as Refrigerant in Industrial Facilities	235
HOW CAN PEOPLE BE EXPOSED TO AMMONIA?	235
HOW DOES AMMONIA ACT IN THE BODY?.....	235
WHAT ARE THE SPECIFIC SIGNS AND SYMPTOMS OF AMMONIA POISONING?	235
HOW ARE EMPLOYEES PROTECTED FROM AMMONIA EXPOSURE?.....	236
WHAT CAN YOU DO IF YOU THINK YOU MAY HAVE BEEN EXPOSED TO A LARGE RELEASE OF AMMONIA?	236
HOW IS AMMONIA POISONING TREATED?.....	236
WHAT IF AN EMPLOYEE IS VISITING A CUSTOMER SITE?	236

Table of Contents

STOP WORK AUTHORITY PROGRAM	237
ROLES AND RESPONSIBILITIES.....	237
INTERVENTION PROTOCOL.....	237
Protocol Instruction	237
REPORTING	238
Follow-Up.....	238
Recognition	239
TRAINING.....	239
PREVENTIVE MAINTENANCE PROGRAM	241
APPLICABILITY	241
RESPONSIBILITIES.....	241
DOCUMENTING/TRACKING MAINTENANCE ACTIVITY.....	242
PROPERTY MAINTENANCE PROGRAM	243
GUIDELINES FOR PROPERTY MAINTENANCE AND REPAIR	243
MANUAL LIFTING	245
PROCEDURE.....	245
MANUAL LIFTING EQUIPMENT	245
OTHER SAFE WORK TECHNIQUES.....	246
OTHER BACK SAFETY ISSUES	246
EXAMINATION OF WORK AREAS AND PROCESSES.....	247
TRAINING.....	247
REOCCURRENCE OF MUSCULOSKELETAL INJURIES.....	247
MACHINE SAFEGUARDING POLICY	249
HAZARDOUS MECHANICAL MOTIONS AND ACTIONS.....	249
RESPONSIBILITIES.....	249
REQUIREMENTS.....	251
PERIODIC REVIEW	252
FOLLOW UP	252
NEW EQUIPMENT	253
Abrasive Grinding Equipment	253
Bench Mounted Grinders.....	253
Portable Handheld Grinders	253
TRAINING	254
Training Levels	254
HAND AND POWER TOOLS POLICY.....	255
RESPONSIBILITIES.....	255
GENERAL GUIDELINES.....	255
SAFE SHOP AND FIELD PRACTICES	256
MACHINE GUARDS	256
HAND TOOLS GUIDELINES	256
POWER TOOLS GUIDELINES	257
PERSONAL PROTECTIVE EQUIPMENT (PPE).....	257
TRAINING	257
CONTROL OF HAZARDOUS ENERGY LOCKOUT/TAGOUT PROGRAM	259
ASSIGNMENT OF RESPONSIBILITY	259
LOCKOUT EXAMPLES	259
LOCKOUT/TAGOUT PROCEDURES	260

Table of Contents

Preparation for Lockout or Tagout	260
Electrical.....	260
Hydraulic/Pneumatic.....	261
Fluids and Gases	261
Mechanical Energy	261
Release from Lockout/Tagout	261
MAINTENANCE REQUIRING UNDISRUPTED ENERGY SUPPLY.....	261
SERVICE OR MAINTENANCE INVOLVING MORE THAN ONE PERSON	262
REMOVAL OF AN AUTHORIZED EMPLOYEE'S LOCKOUT/TAGOUT BY THE COMPANY	262
TESTING OR POSITIONING OF MACHINES, EQUIPMENT OR COMPONENTS	262
SHIFT OR PERSONNEL CHANGES.....	262
PROCEDURES FOR OUTSIDE PERSONNEL/CONTRACTORS.....	263
TRAINING AND COMMUNICATION.....	263
PERIODIC INSPECTION	263
EXCEPTIONS TO OSHA's LOCKOUT OR TAGOUT REQUIREMENTS	264
LOCKOUT/ TAGOUT SEQUENCE	264
Verification of Isolation.....	265
Removing Locks and Tags.....	265
Shift Changes	266
CONTRACTOR POLICY	266
Contractor Lockout Procedure.....	266
EQUIPMENT THAT CANNOT BE "PHYSICALLY" LOCKED OUT	267
RESTART PROCEDURES.....	268
ELECTRICAL INSTALLATIONS, EQUIPMENT, AND ELECTRICAL SAFETY.....	269
REQUIREMENTS.....	269
INSPECTIONS.....	270
RESPONSIBILITIES.....	270
EMERGENCY PROCEDURES.....	271
Emergency Removal of Tag and Lock.....	271
Hazards	271
OVERHEAD POWERLINES - MINIMUM APPROACH DISTANCES	271
CONTROL OF HAZARDOUS ENERGY (LOCKOUT / TAGOUT)	272
Tagout Devices.....	272
FALL PROTECTION PROGRAM	275
FALL HAZARD IDENTIFICATION AND EVALUATION RESPONSIBILITIES	275
EXAMPLES OF SITUATIONS REQUIRING FALL PROTECTION	275
Wall Openings	275
Hoist Areas	275
Ramps, Runways, Open-Sided Floor, Platform 4 Feet or More, Adjacent Floor or Ground Level.....	275
Powered platforms, Man lifts, and Vehicle-Mounted Work Platforms.....	275
FALL PROTECTION SYSTEMS.....	276
Guardrail Systems	276
Personal Fall Arrest Systems	277
Calculating Total Distance	277
Positioning Device Systems.....	277
Covers	277
PROTECTION FROM FALLING OBJECTS.....	277
TRAINING	278
ACCIDENT FALL INVESTIGATION	278
RESCUE PROCEDURES	278
ENFORCEMENT.....	278
Written Warnings.....	278
WORKING SAFELY AT ELEVATIONS.....	279

Table of Contents

BARRICADES	279
WRITTEN WARNING FORM	281
FALL-HAZARD CHECKLIST	283
FALL-PROTECTION SYSTEMS TRAINING CHECKLIST.....	285
WORKING SAFELY AT ELEVATIONS.....	287
LADDERS.....	287
Hazards	287
Ladder Requirements.....	287
Proper Use of Ladders.....	288
SCAFFOLDING AND Elevated PLATFORMS.....	289
LADDER SAFETY TRAINING POLICY.....	291
RESPONSIBILITIES.....	291
PORTABLE LADDERS TYPES	292
SAFE LADDER PRACTICES.....	292
Inspection	293
Maintenance	293
Storage	294
TRAINING	294
AERIAL LIFT POLICY	295
PURPOSE	295
SCOPE & APPLICATION	295
POLICY	295
RESPONSIBILITIES.....	295
Supervisors:.....	295
Employees:.....	295
CONSTRUCTION.....	295
INSPECTION, MAINTENANCE & TESTING.....	296
TRAINING.....	296
PRE-OPERATIONAL PROCEDURES.....	297
OPERATING PROCEDURES.....	297
WORK ALONE POLICY	301
PURPOSE	301
SCOPE	301
POLICY	301
KEY RESPONSIBILITIES.....	302
WORKING ALONE CONTROLS.....	302
EMERGENCY RESPONSE.....	303
TRAINING	303
Forms.....	305
New Employee Health and Safety Checklist.....	307
Safety Meeting Record Attendance Roster.....	309
Safety Suggestion Form	311
Safety Data Sheet Request Form	313
Safety Inspection List	315
Emergency Information (To Be Posted)	317
Disciplinary Report Form.....	319
Facts of Incident: (Attach additional page if necessary)	319
Energized Electrical Work Permit.....	321
Confined Space Evaluation Form	323
Confined Space Entry Permit	325
Employee Incident Report	327

Table of Contents

Supervisor's Statement of Injury.....	329
Accident Investigation Report.....	331
Medical Treatment Authorization.....	333
Employee Acknowledgment of Workers' Compensation Network.....	335
Medical Records Release Authorization.....	337
Physician's Report of Employee Injury.....	339
Wage History.....	341
Emergency Personnel Names and Phone Numbers.....	343
Medical Evaluation Form	345
Medical Clearance for Respirator Use.....	351
Appendix D Form	353
Job Safety Environment Analysis (JSEA).....	355
COVID-19 Questionnaire.....	357

Safety and Health Policy Statement

Altura Engineering and Design is dedicated to providing a safe and healthful environment for employees and customers, protecting the public, and preserving Altura Engineering and Design's assets and property.

Our most valuable resources are the people who work for us. We believe that injuries can be prevented; to achieve this objective, we will make all reasonable efforts to comply with all government regulations pertaining to safety and health issues. An effective Safety and Health Program will be implemented throughout our organization.

The Safety and Health Program will assist management and non-supervisory employees in controlling hazards and risks which will minimize employee and customer injuries, damage to customer's property, and damage or destruction of company property.

All employees will follow this program. This program is designed to encourage all employees to promote the safety of their fellow employees and customers. To accomplish our safety and health goals, all members of management are responsible and accountable for implementing this policy ensuring that it is followed.

Altura Engineering and Design is sincerely interested in the employee's safety. The policy of Altura Engineering and Design is to provide access to safe equipment, adequate tools and training, and the necessary protective equipment. It is the employee's responsibility to follow the rules of safety as established for their protection and the protection of others and to use the protective devices provided by Altura Engineering and Design.

Safety and Education Training Program

Altura Engineering and Design is committed to instructing all employees in safe and healthy work practices. We will provide training to each employee with regard to general and acceptable safety procedures and will address any hazards or safety procedures that are specific to that employee's work situation.

Training will occur:

- Upon hiring;
- When Altura Engineering and Design believes additional training is warranted;
- When an employee is given a new job assignment;
- When new substances, equipment, or procedures are introduced which represent a new hazard; or
- When Altura Engineering and Design is made aware of a new hazard.

Training Topics

Employee training will consist of new employee orientation, periodic group meetings, and one-on-one training. The safety and health training provided to employees will include:

- Employee safety handbook;
- Altura Engineering and Design safety and health policy;
- Altura Engineering and Design safety and health program;
- Incident reporting;
- Hazard communication;
- Personal Protective Equipment requirements;
- Emergency procedures;
- Housekeeping;
- Buddy system
- Stop work authority
- Job-specific hazards; and
- Other standards as applicable and required by present or future OSHA requirements.

Training Documentation

Employee training will be documented using the Altura Engineering and Design' "New Employee Health and Safety Checklist" as well as the "Safety Meeting Record Attendance Roster," both of which may be found in the "Forms" section of this manual.

The Altura Engineering and Design' "New Employee Health and Safety Checklist" must be completed on the first day of hire by a supervisor. This form provides a guide for joint review between the supervisor and the employee of necessary safety precautions and potential hazards involving the employee's job tasks. The supervisor and employee must initial and date all items appropriate to the employee's position and activities. Classroom training will be scheduled for the next available new hire class.

Safety and Health Communication

Communicating with Employees on Safety and Health Issues

- 21 -

Altura Engineering and Design

Updated: October 2024

Reviewed: October 2024

Revised: October 2024

Safety and Education Training Program

Communicating with employees regarding health and safety issues must be a two-way street. It must consist of both employer-to-employee and employee-to-employer communications. Employees will be trained through the formal safety and health program, new employee orientation, and training specific to new or current job assignments and/or hazards.

Reporting of Safety and Health Hazards

Altura Engineering and Design has a system in place for employees to report a hazard or unsafe condition. The "Safety Suggestion Form" will be used for reporting and documenting such hazards. Employees should also notify their immediate supervisors verbally of such hazard or condition. The "Safety Suggestion Form" will be sent to the employees' supervisors or the Safety Coordinator. A prompt and thorough investigation will be conducted of the situation.

Postings

As a routine part of the Safety and Health Program, postings required by OSHA, state and federal law will be prominently displayed in employee areas.

Training

Altura Engineering and Design has training requirements designed to instruct employees on general safety procedures as well as safety procedures specific to the employees' jobs. These training requirements are described in greater detail throughout this safety manual.

Employee Safety Handbook

All employees will be provided with an Employee Safety Handbook before they begin work at the time of orientation. New employees are to read the handbook and acknowledge its receipt by completing the first page of the handbook. This acknowledgement page will be removed from the handbook and placed in employees' personnel records.

Safety Committee

The Safety Committee will be composed of rank-and-file employees. The Safety Coordinator or their representative will serve as the Safety Committee chairperson. The Safety Committee will function as an advisory body to develop and recommend to Altura Engineering and Design management matters of policy and procedure affecting administration of Altura Engineering and Design's Safety and Health Program.

The Safety Committee will meet at a mutually convenient time at the request of a member of the committee but will not meet less than once a year.

The Safety Committee is responsible for:

- Reviewing statistical data, records, and reports of safety matters to determine the effectiveness of overall accident and loss prevention efforts and to develop recommendations for improvement;
- Reviewing and analyzing accident and property loss investigation reports for accuracy and completeness and recommending follow-up investigation, if necessary;

Safety and Education Training Program

- Providing recommendations for corrective action and providing consistency throughout Altura Engineering and Design's operations;
- Identifying accident problems or trends and determining in what order they should be given attention;
- Reviewing safety and property inspection reports, job safety analyses, supervisors' safety observation reports, and employees' suggestions for possible changes in work practices or procedures and the need for safety procedures, protective devices or equipment, and training;
- Developing practical safety and property inspection procedures and assisting with inspections when requested by the Safety Coordinator;
- Keeping managers informed of the progress of the safety program and the safety records of employees or other segments of Altura Engineering and Design;
- Assisting in the development of records and statistical data necessary to provide an accurate picture of Altura Engineering and Design's safety problems;
- Identifying unsafe work practices, conditions and suggesting appropriate remedies;
- Ensuring that employees and others (visitors, contractors, etc.) are informed about safety policies, training programs, injury risks and causes, and other health and safety-related matters;
- Maintaining an open channel of communication between employees and management concerning occupational and environmental health and safety matters; and
- Providing a means by which employees can utilize their knowledge of workplace operations to advise management in the improvement of policies, conditions, and practices.

Hazard Identification and Communication

The purpose of this program is to ensure employees that Altura Engineering and Design is complying with the OSHA Hazard Communication Standard, Title 29 Code of Federal Regulations 1910.1200 by using Safety Data Sheets (SDSs), compiling a hazardous chemicals list, properly labeling containers, and by providing each employee with training.

This program applies to all work operations in Altura Engineering and Design where employees may be exposed to hazardous substances under normal working conditions or during emergency situations.

The Safety Coordinator is the Program Coordinator, acting as the representative of Altura Engineering and Design, who has overall responsibility for the program. They will review and update the program as necessary.

Under this program, employees will be informed of the contents of the Hazard Communication Standard, the hazardous properties of chemicals with which they will use, safe handling procedures, and measures to be taken to protect themselves from these chemicals. Employees will also be informed of the hazards associated with chemicals in unlabeled pipes.

List of Hazardous Chemicals. The Safety Coordinator will make a list of all hazardous chemicals and related work practices used in Altura Engineering and Design and will update the list as necessary. This list of chemicals will be found in the SDS binder(s) for quick reference. This list also identifies the corresponding Safety Data Sheet (SDS) for each chemical. Any new hazardous chemicals received by Altura Engineering and Design will have SDSs documents available for inspection before any employee uses the chemicals.

Safety and Education Training Program

Safety Data Sheets (SDSs). SDSs provide employees with specific information on the chemicals used. The Safety Coordinator will maintain a binder with an SDS on every substance on the list of hazardous chemicals. The SDS should be prepared in accordance with Paragraph (g) of 29 CFR 1910.1200.

SDS Responsibility. The Safety Coordinator is responsible for acquiring and updating SDSs. The Safety Coordinator will contact the chemical manufacturer, vendor and/or oil refinery safety coordinator if additional research is necessary or if an SDS has not been supplied with an initial shipment.

Labels and Other Forms of Warning. The Safety Coordinator will ensure that all hazardous chemicals in the work place are properly labeled and updated as necessary. Labels should list at least the chemical's identity, appropriate hazard warnings, and the name and address of the manufacturer, importer, or other responsible parties. The Safety Coordinator will refer to the corresponding SDS to assist employees in verifying label information.

Non-Routine Tasks. When employees are required to perform hazardous, non-routine tasks (e.g., cleaning tanks, entering confined spaces, etc.), a special training session will be conducted to inform them of the hazards with which they may come into contact and the precautions to take to reduce and avoid exposure or danger.

Training. Everyone who works with or is potentially exposed to hazardous chemicals will receive initial training on the Hazardous Communication Standard and the safe use of those hazardous chemicals by the Safety Coordinator. Whenever a new hazard is introduced, additional training will be conducted to address the new hazard and the protective measures to be taken.

The training plan will emphasize:

- A summary of the standard and this written program;
- Chemical and physical properties of hazardous materials (e.g., flash point, reactivity, etc.) and methods used to detect the presence or release of chemicals (including chemicals in unlabeled pipes);
- Physical hazards of chemicals, health hazards including signs and symptoms associated with exposure to chemicals and any medical condition known to be aggravated by exposure to the chemical;
- Procedures to protect against hazards (e.g., personal protective equipment required, proper use and maintenance, work practices, methods to ensure the proper use and handling techniques, and procedures for emergency response);
- Work procedures to follow to ensure protection when cleaning hazardous chemical spills and leaks; and
- Location(s) of SDSs, how to read and interpret information on labels and SDSs, and how employees may obtain additional hazard information.

Contracted Employees. The Safety Coordinator will advise outside contractors in person of any chemical hazards that may be encountered in the normal course of their work on Altura Engineering and Design's premises, the labeling system in use, the protective measures to be taken, and the safe handling procedures to be used. In addition, these individuals will be notified of the location of all SDSs. Each contractor who brings chemicals onto Altura Engineering and Design's premises must provide Altura Engineering and Design with the appropriate hazard information on these substances including the labels used and the precautionary measures to be taken in working with these chemicals.

Safety and Education Training Program

Identification of Workplace Hazards

Periodic scheduled inspections will occur as a routine part of Altura Engineering and Design' business.

Employees who wish to remain anonymous may report unsafe conditions or hazards by submitting a "Safety Suggestion Form" to their immediate supervisor without identifying themselves.

Employees must report immediately any unsafe condition or unsafe practice. No employee will be disciplined or discharged for reporting any workplace hazard or unsafe condition. Failure to report any obvious unsafe situation may result in disciplinary action up to and/or including termination.

The Safety Coordinator will ensure that SDSs are present, up-to-date, and accessible at the appropriate locations. In addition, the Safety Coordinator will ensure that employees are trained in the Hazard Communication Program and will continuously monitor the worksite to verify employees follow safe work practices.

Safety and Health Requirements

All employees will comply with the provisions of the Occupational Safety and Health Act (OSH Act) of 1970. Therefore, employees who knowingly commit an unsafe act or create an unsafe condition, disregard the safety policy, or are repeated safety or health offenders will be subject to Altura Engineering and Design' discipline policy and/or termination. Grounds for disciplinary action include, but are not limited to:

- Drinking alcohol or abusing drugs prior to or during working hours;
- Fighting;
- Theft;
- Willful damage to property;
- Failing to wear eye protection, hearing protection, hardhats, etc.; when required
- Not using fall protection when the potential for falling exists;
- Removing or making inoperative safety guards on tools and equipment;
- Removing barriers or guardrails and not replacing them;
- Failing to follow recognized industry practices;
- Engaging in dangerous horseplay; or
- Failing to notify Altura Engineering and Design of a hazardous situation.

Employees should report all injuries immediately to their supervisors, and they should notify their supervisors if they become ill while on the job. Furthermore, supervisors should be informed if employees have a disability or physical handicap. Lastly, employees should never move an injured or ill person unless to prevent further injury.

Minor safety violations will be documented and a copy or equivalent of the Disciplinary Report form may become part of an employee's personnel record.

Accident and Incident Reporting

It is important that employees report all accidents and incidents that result in injury, illness, or damage (however slight) to their supervisors immediately so Altura Engineering and Design can learn how to prevent them from occurring in the future. It is Altura Engineering and Design' responsibility to investigate each incident and each employee's responsibility to report them when they occur.

First Aid and Medical Treatment

Altura Engineering and Design provides first aid kits on the premises. They are available for employee use in the treatment of minor scratches, burns, headaches, nausea, or other problems. Employees should let their supervisors know if they need to use a first aid kit and they should ask their supervisors to show them the kit's location.

If employees have a work-related injury or illness, they must notify their supervisors and let them know before they receive assistance. If employees fail to notify their supervisors, they may be ineligible for disability programs, benefits through workers-compensation to pay for doctor's bills, or lost wages.

Non-Emergency Medical Treatment

For non-emergency work-related injuries requiring professional medical assistance, management must first authorize treatment. If an employee sustains an injury requiring treatment other than first aid, the employee must

inform their supervisor. Then, the employee should proceed to the posted medical facility. The employee's supervisor will assist with transportation if necessary. Lastly, the employee should provide details for the completion of the accident investigation report.

Emergency Medical Treatment

If an employee sustains a severe injury requiring emergency treatment, they must call for help and seek assistance from a coworker, if able. An employee should use the emergency telephone numbers and instructions posted next to the telephone in their work area to request assistance and transportation to the local hospital emergency room. Lastly, the employee should provide details for the completion of the accident investigation report.

First Aid Training

Affected employees will receive general training, and instructions on wound care, broken bones, burns, eye injuries, neck and spine injuries, and heat exhaustion.

Employees should wash minor wounds (cuts, lacerations, abrasions, or punctures) using soap and water, rinse them well, and cover the wound with clean dressing.

Employees should stop the bleeding first on major wounds (large, deep cuts, lacerations, abrasions, or punctures) by pressing directly on the wound using a bandage or cloth and keeping pressure in place until medical help arrives.

Employees should not move a victim unless it is absolutely necessary. If a victim must be moved, an employee should "splint" the injured area with a board, cardboard, or rolled newspaper as a splint.

Thermal (heat) burns should be rinsed without scrubbing them and immersed in cold water; **ice water should not be used!** An employee should blot-dry the area and cover it using sterile gauze or a clean cloth.

The exposed area of chemical burns should be flushed with cool water immediately for 15 to 20 minutes.

When small particles enter the eye(s), employees should not rub their eyes. Instead, they should use the corner of a soft clean cloth to draw particles out. They also may hold the eyelids open and flush the eyes continuously with water.

If a particle is stuck in the eye, employees should not attempt to remove it. Rather, they should cover both eyes with a bandage and request medical attention.

If a chemical gets into the eye(s), employees should immediately irrigate the eyes and under the eyelids with water for 30 minutes.

If the victim appears to have injured their neck or spine or is unable to move their arm or leg, employees should not attempt to move the victim unless it is absolutely necessary.

Subject to heat exhaustion, employees should loosen the victim's tight clothing, give the victim sips of cool water, and make the victim lie down in a cooler place with feet raised.

Workers' Compensation

Every state has a Workers' Compensation Law to provide benefits to employees for lost wages and medical bills resulting from a work-related injury or illness. Altura Engineering and Design currently is a subscriber to the Texas Workers' Compensation Program.

Employees' Safety Rights

Employees have several important rights concerning safety which are protected by federal, state, and local laws of which you should be aware. They include:

- The right to a safe workplace free from recognized hazards;
- The right to request information on safety and health hazards in the workplace, precautions that may be taken, and procedures to follow if an employee is injured or exposed to toxic substances;
- The right to know about the hazards associated with the chemicals employees work with and the safety procedures they need to follow to protect themselves from those hazards;
- The right to question any instruction which requires an employee to disobey a safety rule which puts themselves or someone else in unnecessary danger of serious injury or requires them to perform a task for which they have not been trained to perform safely; and
- The right of freedom from retaliation for demanding an employee's safety rights.

Employees' Safety Responsibilities

Employees also have some important responsibilities concerning safety. These include:

- The responsibility of reporting all injuries and illnesses to a supervisor, no matter how small;
- The responsibility of always following the safety rules for every task performed;
- The responsibility of reporting any hazards encountered;
- The responsibility of helping co-workers recognize unsafe actions or conditions they cause; and
- The responsibility of asking about the safety rules that may seem unclear.

All employees will insist that fellow employees follow safety rules and observe safe work practices on and off the job site(s). If an employee's immediate supervisor is participating in bad safety practice, that employee may notify a higher-level supervisor without the risk of retaliation for exercising their safety and health rights.

For immediate information and/or corrective action, please contact David Salas at 806-318-4076.

Safety Handbook Acknowledgement

Safety Handbook Acknowledgement

(Remove and retain this sheet in the Employee's Personnel File)

Name

Date of Hire

Signature

Date

Altura Engineering and Design

Employee Safety Handbook

At Altura Engineering and Design, our most valued resources are our employees, our customers, and the communities we serve. We are dedicated to providing a safe and healthful environment for employees and customers, protecting the public, and preserving Altura Engineering and Design' properties and assets. We believe injuries can be prevented, to achieve this objective we will make all reasonable efforts to comply with all government regulations pertaining to safety and health issues. An effect Safety and Health Program will be implemented throughout our organization.

The Safety and Health Program will assist management and employees with controlling hazards, which will minimize employee and customer injuries, damage to customers' property, and damage to Altura Engineering and Design property.

All employees will follow this program.

Altura Engineering and Design' Safety Manual will be made readily available to all interested parties. Employees are encouraged to take time to study and understand our implemented safety policies and procedures. It is your responsibility and ours to make this program work. You are a valued member of the team, and we care about your safety.

General Safety Guidelines

Employee Safety Guidelines

It is impossible to list or include all safety rules for all the possible tasks performed. However, the following rules have been prepared to help avoid hazards which may cause injury while doing some of the more common tasks. Employees should study and follow the rules provided in this manual and ask their supervisors for additional rules when asked to do a task with which they are unfamiliar and those that this manual does not cover. Failure to follow safety rules and safe practices will result in disciplinary action up to and/or including termination.

General Safety Rules

- Read and follow the safety notices and other information posted.
- Observe and follow all safety instructions, signs, and operation procedures.
- Help fellow employees when they ask for assistance or when help is needed for their safety.
- Never participate in horseplay. Horseplay that results in injury may not be covered by the disability program.
- Clean up spills immediately.
- Report all unsafe conditions, hazards, or equipment immediately. Make sure other people are warned of the problem so that they may avoid it.
- Wear personal protective equipment as required to reduce potential injury. Use gloves, safety glasses, and other equipment as necessary.
- Never stand on chairs, furniture, or anything other than an approved ladder or step stool.
- Never use intoxicating beverages or controlled drugs before or during work. Prescription medication should only be used at work with a doctor's approval, and supervisor knowledge.

Fire Safety

- Report all fire hazards to a supervisor immediately.
- Firefighting equipment should be used only for firefighting purposes.
- Smoking is not permitted at any time in the areas where "No Smoking" signs are posted.
- Do not block access to firefighting equipment.
- Keep doors, aisles, fire escapes, and stairways completely unobstructed at all times.
- In the case of a fire, first consideration must be the safety of all persons; attention then should be directed to the protection of property.
- Change clothes immediately if they are soaked with oil, gasoline, paint thinner, or any other flammable liquid.
- Know how to report a fire and how to turn on a fire alarm.
- Know the location of all fire extinguishers and how to use them.
- Know the fire exits to be used in an emergency.

Hand and Power Tools

- Wear personal protective equipment necessary for the job being performed. Discuss any required safety equipment with a supervisor as changes occur.
- Defective or modified tools must not be used.
- Do not carry sharp hand tools in clothing.
- Check all wiring on electric hand tools for proper insulation and three-prong plug grounding.
- Power tools must have the appropriate guards installed.
- For hammers, use eye protection at all times.
- For screwdrivers, use the right size and type of screwdriver for the job. Do not use a screwdriver as a chisel.

- For wrenches, it is always better to pull than to push. If pushing is necessary, use an open palm. However, use the proper wrench for the job.
- Make shift tools not recommended for use.

Personal Protective Equipment

- Approved eye protection (safety glasses with side shields or goggles) must be worn at all times when assigned certain job classifications. It is important to check with a supervisor to ensure compliance.
- Sandals and shoes with open toes or high heels are not permitted.
- Wear protective clothing and equipment as required by the job classification to protect against hazards at hand. These include, but are not limited to, hard hats, steel-toed shoes, gloves, fall safety harnesses, and earplugs.

Material Handling Safety Rules

- When lifting, lift properly. Keep the back straight, stand close to the load, and use the leg muscles to do the lifting while keeping the load close to the body. Never twist the upper body while carrying a load.
- When lifting heavy objects, utilize a two-wheeled dolly or ask for assistance from another employee.
- Inspect the object being lifted for sharp corners, nails, black widow spiders, or other things that may cause injury.
- Use gloves when handling rough or sharp materials.

Housekeeping

- Do not place materials in aisles, stairways, or any designated path of travel.
- Stack material at a safe height so that material will not fall if bumped. Ensure heavy loads have proper support, and make sure there is no overhanging or irregular stacking of material.
- Place all trash or scrap in places provided. Clean up all spills immediately.
- Report worn or broken flooring, stair treads, handrails, furniture, or other dysfunctional office equipment.
- Smoking is permitted only in designated areas. Use ashtrays for disposing of butts. Do not throw butts on the floor.
- Housekeeping is an integral part of any effective safety program. Keeping work areas neat and clean reduces the potential for accidents and injuries. Each employee is responsible for keeping their work area neat, orderly, and free of any hazardous conditions to comply with OSHA standards.

Cell Phones

Altura Engineering and Design recognizes that the employees are our most valuable asset, and the most important contributors to our continued growth and success. Altura Engineering and Design is firmly committed to the safety of our employees, and we will do everything possible to prevent workplace accidents and we are committed to providing a safe working environment for all employees.

Altura Engineering and Design prohibits employee the use of personal cellular phones or similar devices, during work shifts, while operating equipment, or while driving company vehicle(s).

Employees with company phones may only use cell phones in the appropriate areas.

Cell phones should only be used during breaks and lunch during your regular work shift. Emergency phone calls should be handled through office personnel.

This prohibition of cell phone or similar device use includes, but is not limited to, receiving or placing calls, text messaging, surfing the Internet, receiving or responding to email, checking for phone messages.

Employees who violate this policy will be subject to disciplinary action, up to and including termination.

Employee Signature

Date

Supervisor

Date

Disciplinary Policy and Procedure

It is Altura Engineering and Design expectation that all employees will conduct themselves according to generally accepted standards of conduct and performance. When employees do not meet these standards, it is the supervisor's responsibility to act in a timely manner and initiate a program of disciplinary steps to address the problem. Examples of situations which may require the supervisor to take immediate action include, but are not limited to, fighting in the workplace, theft, refusal to perform work, excessive absenteeism, or chronic tardiness.

This policy presents the basic principles and procedures of a system of progressive discipline which is intended to ensure that all employees are treated as consistently and fairly as possible throughout the facility. The disciplinary program has four major purposes:

1. To ensure that the employee knows what the problem is;
2. To communicate what the supervisor's expectations are in order for the employee to correct the problem;
3. To provide appropriate penalties for improper work conduct; and
4. To provide a record of corrective action taken by supervisors in such problem situations.

Enforcement action by Altura Engineering and Design may include meeting with the employee(s) to discuss infractions, deficits and/or failures and the imposition of required corrective action. Depending on the severity and frequency of a violation, an employee may be immediately terminated, suspended, or given a written or verbal warning.

Steps of Progressive Discipline

There are **four steps** in the progressive discipline process; however, in cases of misconduct or repeated infractions, the process may be shortened and the supervisor, in consultation with management, may move directly to a later step in the process, including termination.

All disciplinary action should be taken within a reasonable time frame; it is recommended that no more than two days elapse between the time the supervisor learns or has knowledge of the offense and the action is taken.

Verbal Warning

Verbal warnings are appropriate for minor first offenses. It is important that supervisors not overuse the verbal warning for the same type of offense; no more than two verbal warnings should be given.

The supervisor should have a full discussion with the employee before giving the warning to ensure that the employee has the opportunity to respond or to give additional information. If the supervisor believes that a verbal warning is appropriate, it should be made clear to the employee that the verbal warning is the first step in the progressive discipline process. The verbal warning should be documented for the supervisor's record and it is recommended that a note summarizing the warning be given to the employee. The record and note should record the date, time, and reason for the warning.

The verbal warning will remain in effect for 12 months.

Written Warning

Disciplinary Policy and Procedure

After an employee has received a verbal warning, a subsequent offense should be addressed by a written reprimand as appropriate. Supervisors must review the draft of the written reprimand with management. The supervisor and employee first meet to discuss the problem. In the discussion, the supervisor must review the incident or performance problem which requires the reprimand and the supervisor and employee should exchange ideas and information regarding solution(s) to the problem. The written reprimand should be given to the employee directly following the discussion, with copies to management and the employee's official personnel file.

The written warning should:

- Be identified as a disciplinary warning;
- Describe as specifically as possible the situation which prompted the warning; including date, time, location, and what the supervisor saw or heard;
- Indicate why the behavior or performance is unacceptable;
- Review the decisions that were reached during the discussion regarding how the employee would correct the problem;
- State that if the behavior continues or other problems occur, additional corrective measures may be taken, which may result in termination of employment.

If the written warning is given without a prior discussion regarding the incident between the supervisor and employee, the supervisor should discuss the matter with the employee when giving the employee the warning.

Written warnings are retained in the employee's formal record for 12 months.

Suspension

Suspension is the option and discretion of Altura Engineering of the disciplinary procedure. It is intended to indicate to the employee the seriousness of the infraction and that the employee can reasonably expect that the next step is termination of employment.

Before determining if an employee should be suspended, **the supervisor must meet with the employee** to discuss the incident or problem and consult with management.

The employee should be notified in writing of the suspension as soon as possible. The letter should outline the reason for the suspension and the dates of the suspension. Suspensions are normally for one (1) to three (3) consecutive work days and the dates are determined by the manager in consultation with management. Longer suspensions because of severe infractions may be given and scheduled at the discretion of management. The employee should be warned that continuation of the behavior may result in termination of employment.

Normally suspensions are without pay, although if an investigation of events is necessary the employee may be suspended with pay, pending results of the investigation. Supervisors should consult with management regarding pay. There may be instances when a final written warning may be more appropriate, and may, upon consultation with management, substitute for a suspension (for example when discipline is for a pattern of absenteeism).

Termination

Termination of employment is the culmination of the progressive discipline process or the penalty for very serious offenses.

Disciplinary Policy and Procedure

This disciplinary policy is for informational purposes only and does not in any way bind Altura Engineering and Design to follow a particular course of conduct, except when state or federal law requires otherwise. Altura Engineering and Design, in its sole discretion, may change these policies at any time. Nothing in the policies changes the at-will nature of the employment relationship between an employee and Altura Engineering and Design. An employee may still be terminated with or without cause, with or without notice, at the option of either Altura Engineering and Design or the employee, except as otherwise provided by law.

Job Safety Environmental Analysis Procedure

Purpose/Scope

A Job Safety Environmental Analysis (JSEA), as the name implies, is designed for analyzing a job, specifically in the area of health, safety and environment hazards and risks toward the ultimate objective of eliminating the likelihood of workplace incidents. JSEA emphasizes the key tasks of the job, energy source identification associated with each job task, hazard identification and risk assessment, and actions. JSEA is also critical to improving communication above and beyond procedures already in place. This procedure will offer guidance to personnel charged with confirming the JSEA is developed and used effectively, with quality assurance and accountability. Furthermore, this procedure will establish JSEA criteria and provide guidance for performing Job Safety Environment Analysis to enhance the HSSE (Health, Safety, Security & Environmental) aspects of jobs with established procedures or standards and is the first step of the Permit to Work Process based upon hazards anticipated/recognized/identified by personnel or other procedures and standards. Written JSEA's are required for jobs that do not have a documented procedure and risk assessment already in place. When in doubt as to whether a written JSEA is required, completing a written JSEA should always be the demonstrated positive behavior. Use of third party JSEAs, such as associated with refinery activities, is permitted provided it is equal to or more rigorous than the performance guidelines given below.

JSEA is a communication and planning tool. Use of the JSEA involves:

- 1) breaking a job into a sequence of tasks that are analyzed in a methodical way to identify the eight energy sources, (Motion, Chemical, Radiation, Electrical, Gravity, Heat/Cold, Biological, Pressure), associated with each task,
- 2) anticipating/recognizing/identifying hazards that each energy source may present for the tasks
- 3) conducting a Risk Assessment of the job
- 4) developing specific, measurable, achievable, realistic, timely (S.M.A.R.T.) actions to eliminate, control, protect against the hazard(s)
- 5) assigning responsibility to a specific person(s) for carrying out each action
- 6) reviewing the JSEA after completing the job for areas of improvement and lessons learned and as reference for future similar jobs
- 7) Weather awareness

Definitions

Actions –activities or measures which eliminate, control, or protect against hazards

Competence – the ability to be able to perform an activity to the expected standard

Competent Person – by reason of their training, knowledge, and experience, is considered capable of adequately assessing the HSSE risks associated with the job and stopping the job as necessary or warranted

Essential Personnel - Personnel involved in the job that are performing or supervising the work.

Non-Essential Personnel – All personnel not performing the job, e.g., land owners, third parties, visitors and delivery drivers

Frequency – how often the job is performed; example: daily/weekly

Hazard – the potential to cause harm to people, loss of property, or damage to the environment

Incident – an undesired event that did or could have resulted in personal harm, property or environment damage

Energy - the capacity for action or accomplishment (motion, chemical, radiation, electrical, gravity, heat/cold, biological, pressure)

Risk Assessment - the process of evaluating the threat posed by one or more hazards

Risk - a combination of severity (harm, loss, damage) and probability (frequency, chance, likelihood)

Residual Risk - refers to the risk that remains after all the identified actions have been put in place

Job Safety Environmental Analysis Procedure

Routine Job – a set of customary and often mechanically performed procedures and activities; ordinary not special, standard procedure, a course of action to be followed regularly

Task - an activity or segment of a job

General Requirements

Potential hazards and risks to personnel, facilities, the public, customers and the environment are assessed for existing operations, products, business developments, acquisitions, modifications, new projects, closures, divestments and decommissioning.

Key Responsibilities

Management/Supervisor - is responsible for:

- Determining where the JSEA analysis will enhance safe work performance
- Combating risk at source
- Confirming suitable and sufficient assessment of risks for the health and safety of the work team, including Altura, client, subcontractors, and third parties, created by work activity
- Confirming that assessments are recorded, reviewed and signed-off by all personnel involved in carrying out the task
- Confirming appropriate information, instruction and training has been provided to employees to provide for competence of involved personnel

Lead Worker - is responsible for

- Confirming that all jobs undertaken within their area of responsibility are assessed to identify any hazard that may cause harm or damage
- Reviewing and evaluating recommendations to determine feasibility of the actions. When actions are not feasible, the Safety Representative will determine the appropriate action.
- Confirming that control measures are implemented
- Requesting support, as needed, from client or qualified company personnel
- Confirming that the JSEA post-job reviews are conducted and any lessons learned are captured to enhance the JSEA process.
- Identifying all essential and non-essential personnel for the job. All non-essential personnel will be asked to leave the site or be directed to a safe location until the job is completed.

Work Team - is responsible for:

- Conducting work site inspections prior to task initiation
- Understanding the energy sources, hazards and actions associated with the job confirm that all members of the work team have the opportunity to participate in the JSEA and Risk Assessment.
- Confirming that all members understand and are in agreement with the details of the JSEA and have signed off on recommendations prior to initiating the job
- Participating in all phases of the JSEA, from reviewing the key tasks of the job to discussing hazards, recommending actions and accepting responsibility to carry out assigned actions.
- Assisting in the identification of any deficiencies in the work process and also communicating possible improvements
- Actively monitoring their worksites and surrounding area for any changes
- Stopping the work at any time if they become concerned about a potential safety issue
- Sharing knowledge and contributing towards the pre-task or toolbox discussion
- Identifying any lessons learned from the job

Safety Representative - This role may be performed by an Owner, Team Leader or other JSEA trained designee. The Safety Representative is responsible for:

- Periodically conducting a quality review of a representative sample of JSEAs produced within the work site for thoroughness; a suggested Quality Scorecard is found in Appendix C
- Evaluating and prioritizing the level of risk assessment and/or JSEA needed based on the following:

Job Safety Environmental Analysis Procedure

- jobs with high incident frequency - A job that has repeatedly produced incidents is a candidate for a JSEA. The greater the number of incidents associated with the job, the greater the priority for a JSEA.
- jobs with the highest risk potential for causing severe injury. Some jobs may not have a history of incidents, but may have the potential for severe injury such as working from elevated surfaces that require the use of fall protection.
- a release of Product to air or land (produced h₂o, any oil, gas, chemical)
- JSEA should be conducted as soon a new job has been created
- jobs that resulted in a near hit. A near hit is an indicator that barriers failed or were inadequate. A JSEA can reveal opportunities before an injury occurs.
- confirm the person assigned (PA) are competent in the JSEA process
- provides personal consent by either signing JSEA or providing verbal approval to the Issuing Authority.
- prioritizing, tracking and implementing accepted actions resulting from the completed JSEAs. Implementation of accepted actions involving equipment/ facility modifications should be aggressively managed within existing MOC procedure and identification of interim actions until modifications are complete.
- actively supporting and coaching owners and employees as they utilize the JSEA Procedure

Process

Primarily, JSEA promotes improved communication and planning at the worksite. Completed JSEAs involve employees in all phases of the analysis, from defining the key tasks of the job to anticipating and discussing hazards and recommended solutions. The completed JSEA consists of six basic sections:

1. **Job Task** - a detailed analysis that breaks down the job into individual key tasks
2. **Energy Sources**- define one or more energy sources with each task
3. **Guide Word** - a particular hazard associated with an energy source.
4. **Specific Hazard Identification** - a list of potential or existing hazards with each key task of the job and analyzes tools, equipment, or other hardware involved in the work process
5. **Actions** - hierarchy of mitigation - "Eliminate, Control, Protect"- list one or more actions for each identified hazard (e.g., elimination, engineering, administrative (procedures, procedures and rules), equipment, PPE, etc.)
6. **Assign Actions**- accountability for carrying out actions will be clearly assigned and understood (initialed) by the respective person

Job Task – the process of analyzing work in a systematic way. If an existing JSEA is available, the team should review it. If not, then the team should create a new JSEA and list the various tasks that make up the job. Consider during this discussion any past incident history (health, safety, and environment) related to doing the job. Incident history may include near hits, equipment failures, injuries, gas releases, spills, waste generated, etc. Is this a routine job? Remember to review existing procedures, work permits, etc. even if this is considered to be a routine job.

Using the JSEA Form found in Appendix A, break the job into a sequence of key tasks, each describing what is being done. Avoid the two most common errors; making the tasks too detailed or making the tasks too general so those important activities of the tasks are lost.

The wording for each task should begin with an action word/verb like "remove", "open" or "weld". If the number of tasks becomes very large, then consider breaking the job into parts, creating additional JSEAs for the sub-jobs. Remember to tell WHAT is done and not HOW it is done. The JSEA is not considered a training tool. Review all job tasks looking for timing and sequencing errors.

Energy Sources- circle one or more energy sources associated with each task (Motion, Chemical, Radiation, Electrical, Gravity, Heat/Cold, Biological, Pressure).

Guide Word – Write a brief description describing the hazards associated with the identified energy source.
Examples:

Energy Source	Guide Word
• Biological	Hantavirus

- 43 -

Altura Engineering and Design

Reviewed: October 2024

Revised: October 2024

Updated: October 2024

Job Safety Environmental Analysis Procedure

• Electrical	120 volt
• Radiation	NORM
• Chemical	Benzene
• Gravity	Working at heights
• Pressure	100 psi
• Motion	Critical Lift
• Heat/Cold	Hot Surface

Specific Hazard Identification - Identify all anticipated or potential hazards, for each energy source. Use your knowledge and senses to develop a high-quality hazards list. Consider the environmental hazards of energy as well (spills, air releases, etc.)

Actions- develop specific, measurable, realistic, timely (S.M.A.R.T.) actions to eliminate, protect, and/or control each hazard. List one or more actions for each identified hazard. Use the following hierarchy of mitigation to address the hazards anticipated and identified.

- Elimination of Hazard- does the task need to be done? (use mechanical device instead of manual handling)
- Substitution of material- use less toxic chemical, etc
- Engineering Controls - (guards or safety devices, i.e.; Lo/To, handrails, etc.)
- Segregation – distance, time, access controls, etc
- Reduction in personnel/time exposure – limit the # of people exposed to the hazards, control the time they are exposed
- Administrative - procedures, rules, etc.
- Personal protective equipment (PPE) - as a last resort
- Procedures/ Communication – permit to work, checklists, process maps, etc

Identify and document existing mitigation actions for each hazard. Consider the hierarchy of mitigation above, keep in mind that quality actions include eliminating the hazard, controlling the hazard, substituting items in the process, and protecting against the hazards through barriers, distance, personal protective equipment, etc. During this part of the JSEA development consider if there is any other way to eliminate, control or protect against the hazards. Such possibilities include combining tasks, changing the sequence, substituting less harmful chemicals or determining whether other safety equipment is needed to reduce the hazards.

If safer and better job tasks can be used, list each new task, such as describing a new method for disposing of material. List exactly what the worker needs to know in order to perform the job using a new method. **Avoid making general statements about the procedure, such as "Be Careful".** Be as specific as possible in the development of mitigating actions.

Assign Actions- accountability for carrying out actions will be clearly assigned, understood, and initialed by the respective person indicating their personal commitment and accountability for that action. It is important to assure that all members of the work team understand the actions that must be put in place to assure safety and protect the environment while the job is performed. This will assure personal accountability and allow everyone to be clear who will implement the action.

Remember “everyone has an obligation to stop work that is unsafe.” When a change in job scope happens, personnel have an obligation to call a halt to work. Examples of job scope change includes, but is not limited to, weather, product release to air or land, incorrect tools for the task, unplanned personnel, etc.

JSEA Review

The final part of the JSEA involves a review for accuracy and completeness. **All personnel that are a part of the JSEA will sign acknowledging their agreement and understanding of the JSEA.**

Job Safety Environmental Analysis Procedure

The JSEA should be provided to the JSEA Leader for disposition of actions that may include an alternative method of hazard mitigation. Determine if the recommended actions have been put in place. Re-evaluate the job safety environment analysis as necessary. Appendix C includes a recommended scorecard to evaluate the overall quality of the analysis and JSEA form itself. Please note that use of this quality scorecard for all JSEAs is not required, but rather provided to assist management with gauging the overall quality of JSEAs from a representative sample and/or conversations with the workforce at worksites.

Job Safety Environmental Analysis Procedure

Training

Job Safety Environment Analysis awareness training is available through the local worksite HSSE Team for those who need further information on the analysis. Training should include skills to build competency in recognizing hazards associated with the job, how to evaluate and to complete appropriate JSEA documentation.

Records

The JSEA will be kept readily available at the worksite until the job is completed. Records generated are maintained in accordance with referenced procedures at the worksite or asset.

Forms

See Appendix section of the Altura Engineering Health and Safety Manual for forms utilized as outlined in this policy:

- JSEA Form
- JSEA Scorecard

Key Documents/Tools/References

Occupational Safety and Health Administration (OSHA) Handbook 3071, Job Safety Analysis

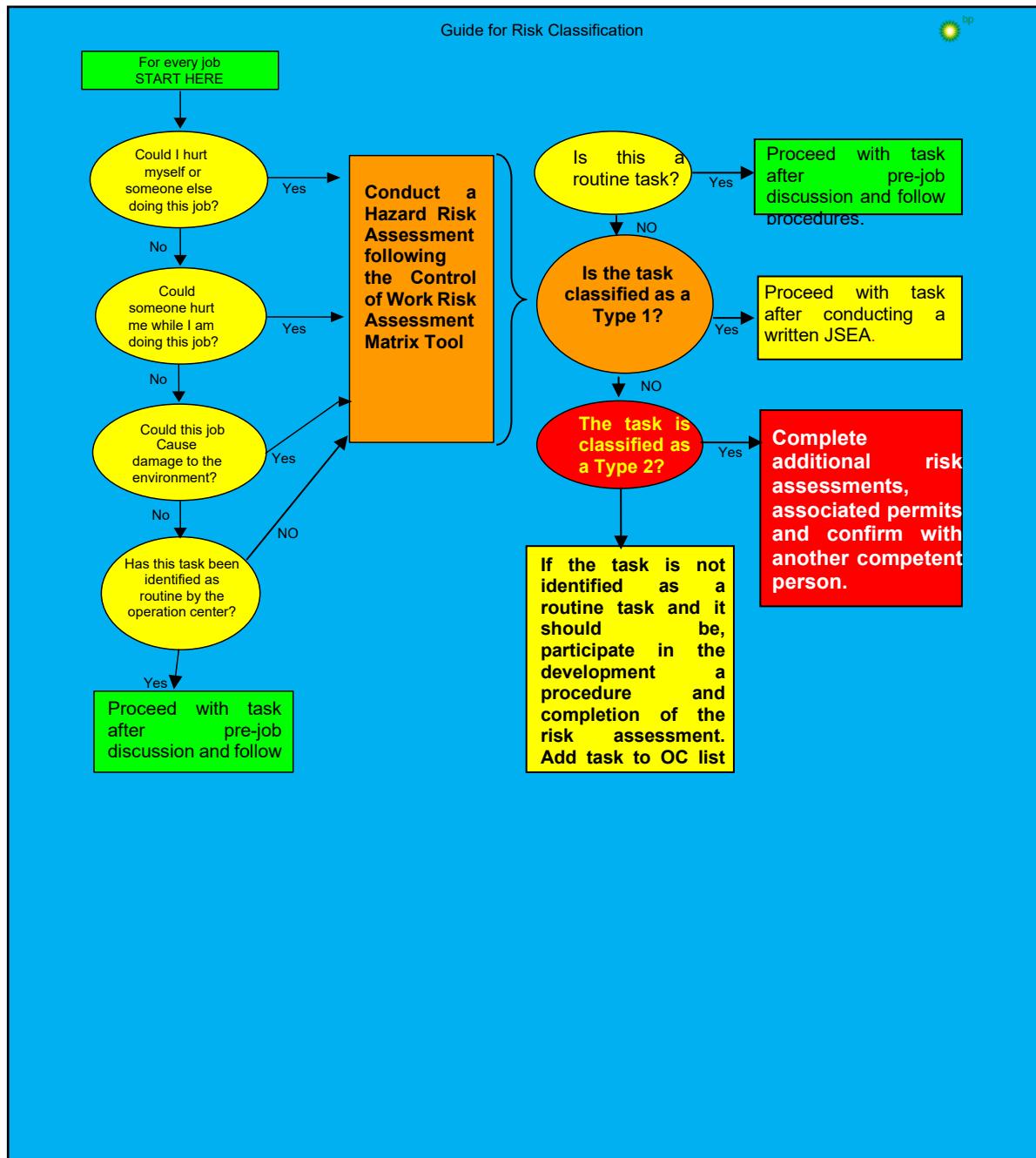
National Safety Council, Supervisor's Safety Manual

Dept. of Energy Barrier Analysis Report- 1995

Energy source methodology based on Decision Point's Hazard Recognition Training Content

Guide for Risk Classification

Below provides decision guidance for proceeding with a job after an initial risk assessment has been conducted. Consideration for each job, a written JSEA, and written formal procedure(s) is based on an initial risk assessment of HSSE Potential Consequence and Potential Probability and the frequency for which these occurrences may occur.



First Aid and CPR Program

Altura Engineering and Design will ensure that employees are readily available for advice, consultation, and emergency response. In the absence of an infirmary, clinic or hospital in near proximity to this workplace which is used for the treatment of all injured employees, persons will be adequately trained through the American Red Cross, American Heart Association, or equivalent to render first aid. Adequate first aid supplies will be readily available. Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body will be provided within the work area for immediate emergency use.

Responsibility

Altura Engineering and Design' Safety Coordinator is responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Safety Coordinator is the sole person authorized to amend these instructions and is authorized to halt any operation of Altura Engineering and Design where there is danger of serious personal injury.

Written Program

Altura Engineering and Design will review and evaluate this standard practice instruction:

- On an annual basis;
- When changes occur to 29 CFR 1910.151, that prompt revision of this document;
- When facility operational changes occur that require a revision of this document; and
- When there is an accident or close-call that relates to this topic.

This written program will be communicated to all affected personnel. It encompasses the total workplace, regardless of the number of workers employed or the number of work shifts. It is designed to establish clear goals, and objectives. Provisions will be made prior to commencement of the project for prompt medical attention in case of serious injury.

First Aid Response Actions

Altura Engineering and Design' Safety Coordinator will oversee all facets of the program:

General Instructions

- Provide total care for those injuries clearly within your capability to handle. All questionable cases should be referred to the Altura Engineering and Design health care provider or local emergency care.
- Enter all injuries and subsequent treatment or disposition in the first aid log book/computer file and/or OSHA 300 log if applicable.
- Follow-up at the end of the shift or as appropriate.

Levels of First Aid Training

Basic First Aid

This basic course is available to all employees. It covers treatment of minor injuries and basic emergency procedures for more serious injuries or health problems.

Basic First Aid Responders

Volunteers will be trained from each Altura Engineering and Design' facility/department to respond to minor emergencies such as small cuts, abrasions, sprains, strains, and non-life-threatening emergencies. Any emergency requiring outside emergency services will be reported to the Safety Coordinator immediately.

Training

Altura Engineering and Design will provide first aid awareness training to all employees.

- Before the employee is first assigned duties that require them to serve as a first aid responder.
- Before there is a change in assigned duties.
- Whenever there is a change in first aid procedures or operations.
- Whenever Altura Engineering and Design has reason to believe that there are deviations from the first aid response procedures required by this instruction or inadequacies in the employee's knowledge or use of these procedures.

The training will establish employee proficiency in the duties required by this instruction and will introduce new or revised procedures, as necessary, for compliance with this instruction or when future revisions occur.

Altura Engineering and Design will certify that the training required by this section has been accomplished. The certification should contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification should be available for inspection by employees and their authorized representatives.

First Aid CPR

Altura Engineering and Design encourages at least one employee from every department to take the Cardiopulmonary Resuscitation (CPR) Course.

Major Emergency Reporting

IF YOU'RE NOT SURE OF THE SEVERITY, SEEK OUTSIDE ASSISTANCE!

Emergency Numbers

Ambulance: 911

Fire: 911

Police: 911

In-House Notification

Immediately dial 911 and then notify the Safety Coordinator anytime outside emergency services are summoned or medical treatment is provided. The telephone numbers of the physicians, hospitals, or ambulance should be conspicuously posted.

Directing Ambulance Services

Post an employee at key points to direct ambulance services to the injured employee's location. A member of the department should accompany the person being treated. Proper equipment for prompt transportation of the injured person to a physician or hospital should be provided.

Minor Emergency Reporting

Minor injuries such as cuts, scratches, bruises, and burns that do not require a doctor's treatment may be handled by one of the facility/departments first-aid responders.

First Aid Log of Activities

All injuries or complaints treated by first aid responders will be entered into the log book/computer system (detailing site-specific actions) located in the administrative office. As a minimum, the following information will be entered.

- Date and time of injury
- Date and time of treatment
- Name of injured person and clock number
- Name of person rendering first aid
- Nature of injury
- Type of treatment given
- Work or non-work related
- First treatment or follow-up treatment
- Type of treatment given
- Work or non-work related
- First treatment or follow-up treatment

First Aid Kits

Where it is unclear as to the type of kit to procure, the Safety Coordinator will be consulted. First aid supplies should be easily accessible when required for injuries. All first aid kits will be inspected periodically to reassess supply inventory.

Eyewashes and Deluge Showers

Where the eyes or body of any employee may be exposed to injurious corrosive materials, suitable refineries for quick drenching or flushing of the eyes and body should be provided within the work area for immediate emergency use. This will include, but is not limited to, portable and fixed emergency eyewash stations and deluge showers. Field employees will carry in their company vehicles at minimum, eye drops, or portable eye wash bottles.

Considerations for Installation: The following criteria will be considered when making a determination for installation of eyewashes and deluge showers.

- Employee use of personal protective equipment
- Type and chemical concentration of concern
- Special guards and/or precautions intended to provide for employee protection from exposure
- Based upon employee job functions, determine the extent and type of probable employee exposure

Note: In areas where the extent of possible exposure is small, a specially designated pressure controlled and identified water hose equipped with a proper face and body wash nozzle which will provide copious amounts of low velocity potable water, or an appropriate portable eye wash device containing not less than one gallon of potable water which is readily available and mounted for use, is considered to provide minimum employee protection when proper personal protective equipment is used.

Bloodborne Pathogens

What Everyone Needs to Know

Bloodborne pathogens are microorganisms carried by human blood and other bodily fluids that cannot be seen with the naked eye. They can be spread through contact with infected blood. If they get into the bloodstream, an individual may become infected and sick.

Most personnel cannot reasonably anticipate coming into contact with blood during their day-to-day work duties. That is why it is imperative that all personnel understand the danger of exposure to bloodborne pathogens and ways to minimize their risk.

Bloodborne pathogens may be present in blood and other materials, such as:

- Bodily fluids containing visible blood
- Semen and vaginal secretions
- Torn or loose skin

Bloodborne pathogens can cause infection by entering the body through:

- Open cuts and nicks
- Skin abrasions
- Dermatitis
- Acne
- Mucous membranes of the mouth, eyes or nose

Workplace Transmission

The most common bloodborne pathogens exposures in the workplace are HIV, Hepatitis B, and Hepatitis C. The exposure determinations will be made without regards to the use of personal protective equipment (PPE). Altura Engineering and Design employee's potential exposure to bloodborne pathogens is limited mainly to performing housekeeping duties or assisting others with first-aid duties. To prevent exposure to bloodborne pathogens in the workplace, all employees should utilize Universal Precaution.

HIV (AIDS)

HIV, the human immuno-deficiency virus, attacks the body's immune system causing it to weaken and become vulnerable to infections that can lead to a diagnosis of acquired immune deficiency syndrome, better known as AIDS.

HIV is transmitted mainly through sexual contact and sharing contaminated needles, but it also may be spread by contact with infected blood and bodily fluids. HIV is not transmitted indirectly by touching or working around people who are HIV-positive. Potential workplace exposure may exist when performing first aid or housekeeping duties when direct contact with bodily fluids might occur.

Employees can prevent getting HIV by stopping the passage of the virus from a person who has HIV to themselves. In many instances, the employee has control over the activities that can transmit HIV. Since HIV is most frequently transmitted through risky behaviors, such as sharing needles or through unprotected sexual intercourse, employees can stop transmission by refusing to engage in these behaviors. Workplace transmission can be prevented by

practicing Universal Precautions and utilizing appropriate PPE, such as latex gloves, aprons, and face shields while performing housekeeping duties or first-aid will mitigate the potential workplace exposure

Hepatitis

Hepatitis is a general term used to describe inflammation or swelling of the liver. Alcohol, certain chemicals or drugs, and viruses such as hepatitis A, B, C, D, E and G may cause hepatitis.

Hepatitis B (HBV) is a serious – and sometimes fatal – disease caused by a virus that infects and attacks the liver. It is primarily spread in the workplace through contact with bodily fluids and contaminated surfaces and sharp objects. In studies that examine transmission following injections into the skin, HBV is 100 times more contagious than HIV. Hepatitis B can also be transmitted indirectly because it can survive on surfaces dried and at room temperature for at least a week. That is why contaminated surfaces are a major factor in the spread of HBV. Each year up to 200,000 new infections and 5,000 HBV-related deaths occur in the U.S. (compared to 40,000 new HIV infections per year. One in approximately 20 persons now has or will have HBV.

Transmission of hepatitis B is preventable. In the workplace, use Universal Precautions when performing housekeeping duties or assisting others with first aid. Utilizing appropriate PPE, such as latex gloves, aprons, and face shields while performing housekeeping duties or first-aid will mitigate the potential workplace exposure. Avoid risky behaviors, such as unprotected sex and drug use. Also, use universal precautions in the workplace.

A vaccine for Hepatitis B is available that is effective in 85%-95% of persons who complete the treatment. The Hepatitis vaccination is given as a series of three injections, whose schedule will be determined by a doctor. All potential exposures must be reported to management so that occupational exposure can be documented and the Hepatitis B vaccine made available to the employee at no costs. Employees have the right to refuse the vaccination, but must sign the declination form in Appendix A of the regulation (29 CFR 1910.1030). The declination must contain the following verbiage:

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

If the employee initially declines the vaccination, but changes their mind at a later time, the vaccination will still be made available at no cost to the employee.

Hepatitis C (HCV) is a serious, often fatal, disease caused by a virus that infects and attacks the liver. Hepatitis C is more common than HBV and ranks slightly below alcoholism as a cause of liver disease. However, HCV is not as infectious as HBV because there are generally lower levels of the Hepatitis C virus in the blood than of the Hepatitis B virus.

Hepatitis C is primarily transmitted through blood-to-blood contact and most commonly through shared needles. The risk of transmitting HCV in the workplace appears to be low, however precautions should be taken. Up to 180,000 people may become infected with HCV each year in the U.S. However, Hepatitis C cannot be transmitted by casual contact such as shaking hands or sharing bathroom facilities. Transmission of Hepatitis C is preventable. Do not engage in risky behaviors, and use Universal Precautions in the workplace.

Note: Although current medical advances have developed treatments for some forms Hepatitis C, it has not proven successful in 100% of patients. Everyone should avoid potential exposure to Hepatitis by utilizing Universal Precautions and not engaging in risky behaviors.

Guidelines for Handling Blood and Other Bodily Fluids

Many personnel are concerned that HIV may be spread through contact with blood and other bodily fluids when an accident occurs at work.

HIV, as noted earlier, has been found in significant concentrations in blood, semen, vaginal secretions, and breast milk. Other bodily fluids, such as feces, urine, vomit, nasal secretions, tears, sputum, sweat, and saliva do not transmit HIV unless they contain visible blood. However, these bodily fluids do contain potentially infectious germs from diseases other than AIDS. If an individual has contact with any of these bodily fluids, they are at risk of infection from these germs. It should be remembered that the risk of transmission of these germs depends on many factors including the type of fluid contacted, the type of contact made, and the duration of the contact.

Very simply, it is good hygiene policy to utilize Universal Precautions and treat all spills of bodily fluids as infectious in order to protect personnel from becoming infected with any germs and viruses. The procedures outlined below offer protection from all types of infection and should be followed routinely.

How Should Blood and Bodily Fluid Spills be Handled?

Universal Precaution

Employees should always exercise Universal Precautions when handling any potentially infectious materials. Universal Precautions is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human bodily fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Whenever possible, employees will wear disposable, waterproof gloves when they expect to come into direct hand contact with bodily fluids (when treating bloody noses, handling clothes soiled by incontinence, or cleaning small spills by hand). Gloves used for this purpose will be put in a plastic bag or lined trashcan, secured, and disposed of daily. Hands should always be washed after gloves are removed even if the gloves appear to be intact.

If an employee has unexpected contact with bodily fluids or if gloves are not available (for example, applying pressure to a bleeding wound), the employee will wash their hands and other affected skin for at least 10 seconds with soap and water after the direct contact has ended. This precaution is recommended to prevent exposure to other pathogens and not just HIV. As has been discussed, blood, semen, vaginal secretions, and blood-contaminated bodily fluids transmit HIV. Wiping a runny nose, saliva, or vomit does not pose a risk for HIV transmission.

Remote Handling

When possible, employees should use remote handling methods and devices when picking up potentially contaminated items. Examples of remote handling methods would be using a shovel instead of your hands to pick up broken glass, or a shovel and dust pan to pick up discarded tissues and paper towels. Keep in mind, any items used to handle potentially contaminated items must also be considered as being contaminated and should be cleaned and disinfected, or properly disposed.

Hand Washing

Proper hand washing requires the use of soap and warm water and vigorous washing under a stream of running water for at least 10 seconds. If hands remain visibly soiled, more washing is required. Scrubbing hands with soap will suspend easily removable soil and microorganisms, allowing them to be washed off. Running water is necessary to carry away dirt and debris. Rinse your hands under running water and dry them thoroughly with paper towels or a blow dryer. When hand-washing facilities are not available, use a waterless antiseptic cleanser and follow the manufacturer's directions for use. Altura Engineering and Design will provide affected employees with waterless antiseptic cleanser for use when proper hand washing facilities are not available.

Disinfectants

An EPA approved germicide or a solution of 99 parts water to 1-part household bleach (or $\frac{1}{4}$ cup of bleach to one gallon of water) will inactivate HIV and should be used to clean all body fluid spills. Higher concentrations of bleach can be corrosive and are unnecessary. Surfaces should be cleaned thoroughly prior to disinfection.

Disinfecting Hard Surfaces and Caring for Equipment

Although hard surfaces have not been found to be a means of transmitting HIV, it is good hygiene policy to clean any soiled hard surfaces thoroughly. To do this, scrub the surface to remove any soil and apply a germicide (like the bleach/water solution described above) to the equipment used. Mops should be soaked in this solution after use and rinsed thoroughly with warm water. The solution should be promptly disposed of down a drainpipe. Remove gloves and discard them in appropriate receptacles, and wash hands as described above.

Laundry Instructions for Clothing Soiled with Bodily fluids

It is important to remember that laundry has never been implicated in the transmission of HIV. To ensure safety from transmission of other germs, contaminated clothes must be laundered with soap and water to eliminate potentially infectious agents. The addition of bleach will further reduce the number of potentially infectious agents. Clothing soaked with bodily fluids may be washed separately from other items. Pre-soaking may be required for heavily soiled clothing. Specimens of blood or other potentially infectious materials must be put in leak proof bags for handling, and transport. It is good hygiene to treat all bodily fluids as infectious.

Labeling

The OSHA standard requires that fluorescent orange or orange-red warning labels with lettering and symbols be in a contrasting color and attached to containers of regulated waste. The warning label must be fluorescent orange or orange-red, must contain the biohazard symbol and the word BIOHAZARD in a contrasting color, and must be attached to each object by string, wire, adhesive or another method to prevent loss or removal of the label.

Recordkeeping

The employer will maintain an accurate record for each employee with occupational exposure. Training records will include: dates, content of training, names, and job title. Training records will also be maintained for 3 years and medical records will be maintained for at least the duration of employment plus 30 years.

Transfer of Records

Whenever the employer is ceasing to do business, the employer will transfer all records subject to the successor employer. The successor employer will receive and maintain these records. Medical records must have written consent of the employee before being released and/or transferred to successor and made available upon request of employees, assistant secretary, and the director for examination and copying.

Exposure Determination

The employer who has employee(s) with occupational exposure will prepare an exposure determination. This will include a list of all job classifications in which all employees in those job classifications have occupational exposure such as janitors and supervisors. Employees who are trained in first aid are expected to provide emergency care.

Training

Altura Engineering and Design will provide training to each employee with occupational exposure at the initial assignment, and at least annually thereafter.

A copy of the exposure control plan will be accessible to employees. When the possibility of occupational exposure is present, PPE is to be provided at no cost to the employees such as gloves, aprons, face shields, dusk masks, etc.

Emergency Action Plan

The purpose of the Emergency Action Plan is to establish the policy and procedures at Altura Engineering and Design regarding management's and employee's responses to various emergency situations. Examples of emergencies are fires, tornadoes, explosions, and bomb threats.

This Emergency Action Plan was prepared in compliance with the Occupational Safety and Health Administration (OSHA) as published in Title 29, Subpart E, Part 1910, Section 38 of the United States Code of Federal Regulations {29 CFR 1910.38}.

This plan includes OSHA requirements for safety and protection of workers and other requirements as may be required by Texas regulatory statutes. Emergency planning provided for herein is addressed for those emergency situations which could be reasonably anticipated to arise involving the employees and assets of Altura Engineering and Design.

Emergency Action Plan Overview

The procedures cover such topics as fire reporting and response; evacuation; tornado preparation and emergency procedures; bomb threats; first aid; hazardous material spills; and explosions.

Altura Engineering and Design has developed plans to address emergency situations that may threaten human health and safety and that may cause damage to Altura Engineering and Design's assets. Management is responsible for implementing the Emergency Action Plan. The emergency action plan will:

- Provide a means of notifying employees, customers, and local authorities of an emergency situation;
- Provide for a safe and orderly method of evacuating employees and customers from Altura Engineering and Design's premises;
- Account for all employees who occupy Altura Engineering and Design's premises at the time of evacuation should one occur;
- Provide emergency first aid treatment or summon emergency medical assistance for injured individuals; and
- Provide training and needed information to those employees responsible for taking action in the event of an emergency.

Signs as required by ordinance, regulation, or law will identify emergency exits. Employees are required to be familiar with the locations of alarm pull stations and emergency exits.

Training on the Emergency Action Plan will take place during new employee orientation, when changes occur in the Plan, and periodically as arranged by the Safety Coordinator.

Smoking is never allowed anywhere on company premises during an emergency

If hazardous materials are involved, disposal must be done in compliance with federal, state, and local environmental laws.

Emergency Responsibilities

Workers

Each worker is charged with the direct personal responsibility for the immediate reporting of all accidents, injuries, fires, explosions, chemical releases, security breaches, or any potential emergency situation.

Supervisors

Upon notification by a worker of an emergency or in the event of personally witnessing a minor or major emergency, supervisors are charged to make the determination as to whether the reported incident will classify as an emergency situation requiring area- or shop-wide notification. Supervisors have direct responsibility for the safety and well-being of subordinates and are expected to perform emergency first aid, conduct situation assessment, shut down equipment, delegate responsibility, assist with crowd control, and conduct area evacuations as directed by the situation.

Emergency Action Coordinator

The emergency action coordinator or their appointee has the total responsibility for the contingency actions listed in this plan and generally directs actions from the emergency communication center. Utilizing the incident command system, the emergency action coordinator designates on-the-scene coordinators to perform assessment and reporting. The emergency action coordinator may direct from the scene of the emergency with a proper appointee maintaining a station in the emergency control center. Primary means of internal communication for the emergency action coordinator will be via two-way radio, intercom system and/or cell phone.

Office Manager

The office manager serves as direct liaison between the emergency action coordinator and emergency response personnel. The office manager will also serve as the administrator for control of employee, community, and media relations. Other duties include maintaining plans for dissemination of vital information to workers and the community, maintaining worker records for medical assistance, notifying next-of-kin, or anything else which is deemed necessary.

Site Manager

The site manager serves as the administrator for the control of business operations, enforces Altura Engineering and Design policies, maintains relations with the community, and protects company assets, worker safety, environmental safety, and business property. The emergency control center is under the control of the site manager during emergencies.

Emergency Action Team

The emergency action team is comprised of members of the Altura Engineering and Design safety committee. This team will review the Emergency Action Plan and will forward comments or suggestions to the emergency action coordinator. This team also will assist in emergency situations under the direction of the emergency action coordinator.

Fire Reporting and Procedures

If a fire alarm or alert is sounded or a fire is reported by an employee – regardless of the reason for the alarm or the severity of the fire – the following action must be taken immediately by the appropriate parties:

Senior Management

1. Senior management immediately will notify security in the building and/or will call 911.
2. Management will give Altura Engineering and Design's name, address, and area of the fire to the 911 operator.
3. Management will assign an employee to wait for the fire department outside Altura Engineering and Design to direct first responders to the fire's location.
4. Senior management will announce evacuation instructions over the public address system: "Ladies and gentlemen, Altura Engineering and Design is being temporarily closed. We request that you leave by the nearest exit immediately. Thank you."
5. Management has designated a safe area outside Altura Engineering and Design which is located in the Front Parking lot as a gathering point for all employees and will take a head count of employees to ensure all were safely evacuated.
6. When working at job sites, a meeting place must be established with contractor.
7. Immediately after the fire, management will notify the Safety Coordinator and all other management individuals to coordinate any salvage and repair operations.

Note: When one or more employees are unaccounted for, employees are not to re-enter the building to conduct a search. Employees should notify the ranking fire or other emergency response official on the scene and the missing employees' last known approximate location.

Employees

If trained in the use of fire extinguishers, an employee may attempt to suppress a small fire until relieved by the fire department or until it becomes apparent that the fire cannot be controlled by fire extinguishers.

Note: Employees should never attempt to control a fire that endangers their health. They must immediately evacuate the area when it becomes apparent that the fire cannot be controlled or when conditions become more hazardous.

Evacuation

For whatever reason and at various times, evacuations may be necessary to facilitate the safety of all parties at the facility. If necessary, the following procedures will be followed:

Senior Management

1. Management will telephone the local emergency agency (for example, fire, police, hazardous materials team, etc.).
2. Management will make the following announcement on the public address system: "Ladies and gentlemen, Altura Engineering and Design is being temporarily closed. Please leave by the nearest exit immediately. Thank you." Management will make this announcement twice and will repeat it every minute or more frequently if needed.
3. Management will check all areas of their respective departments, restrooms, and public areas to verify employees and individuals are evacuated.

Emergency Action Plan

4. Senior management will secure all cash, checks, and charge documents in the safe if time permits.
5. Management has designated a meeting place located in the Front Parking lot for all employees and will take a head count of employees to ensure all were safely evacuated.
6. Management will dismiss all non-essential employees.
7. Management will telephone the Safety Coordinator and all other management personnel.

Note: Employees are not to re-enter the building. Management will notify the ranking fire or other emergency response officials on the scene of a potentially trapped person and their approximate whereabouts.

Bomb Threat

When someone calls and says there is a bomb in the building, the following actions will be performed:

Employee (Receiving Threat)

1. The employee will keep the caller on the line as long as possible and will ask them to repeat the message.
2. The employee will try to write down every word spoken by the caller.
3. The employee will ask the caller where the bomb is located and when it will detonate.
4. The employee will tell the caller that the building is occupied and detonation of a bomb could result in the death and injury to innocent people.
5. The employee will pay particular attention to background noises such as music, engine noises, and the caller's voice: male, female, voice quality, accent, and speech impediments.
6. When the caller hangs up, the employee will not hang up the phone. Sometimes, phones can be traced back to the source.
7. The employee will immediately notify management and describe the threat.

Senior Management

1. Management will call the local police or fire department to report the incident and will follow all recommendations and instructions provided by either department.
2. If the police or fire department declines to give instructions to evacuate the building, management will search the premises (if time permits) for any suspicious looking device or package. If one is found, follow the evacuation plan.
3. Management will not touch any suspicious device or package.

First Aid

If an employee or individual is injured, the initial responsibility of management is to provide the needed first aid or to arrange for emergency medical response or professional medical care.

Senior Management

1. Management will treat the injured individual using the supplies from Altura Engineering and Design's first aid kit.
2. In the event an employee is seriously injured and requires professional medical care, management, if capable, will drive the employee to a medical provider. If an individual is immobile or has a life-threatening injury or illness, management will arrange for emergency care and transportation by calling 911.

Hazardous Material Spill

Emergency Action Plan

Management will respond to incidental releases of hazardous substances when the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate area or by maintenance personnel. If a large spill or fire occurs that is not controllable, management will contact the appropriate local authorities such as the fire department.

Training

Each employee will receive hazard communication training before initial assignment to a work area. Supervisors will conduct on-the-job training for equipment safety and chemical handling in their designated areas.

Evacuation Practice Drills

Employees on all shifts will practice building evacuation procedures at least once per year. After each drill, supervisors and employees will have the opportunity to make recommendations for improving any evacuation procedure. Date and time of all practice drills will be recorded and attached to this Emergency Action Plan.

Evacuation Routes

Evacuation route maps have been posted in each work area where possible. Employees can also find these routes posted in the break area. Areas such as emergency exits, primary and secondary evacuation routes, locations of fire extinguishers, and assembly points are marked on the evacuation maps.

Site personnel should know at least two evacuation routes.

Emergency Phone Numbers

1 st - Response – Security	806-290-1893 or 806-731-4888
Fire Department:	Emergency 911
	Administration 806-378-9360
Ambulance:	911
Police:	Emergency 911
	Non-Emergency 806-378-3038
Poison Control	1-800-222-1222
AXIOM Medical	877-502-9466

Property Management – Maintenance

GAUT WITTENBURG & EMMERSON – Jennifer Webber, jennifer@gwamarillo.com, 806-731-4888

Emergency Reporting and Evacuation Procedures

Types of emergencies to be reported by site personnel are medical, fire, severe weather, extended power loss, chemical spills, and bomb threats.

Medical Emergencies

In minor emergencies, someone should alert a supervisor and emergency action coordinator. If necessary, the supervisor and if capable, will transport the victim to a local minor emergency clinic for professional medical help.

In major emergencies, alert a supervisor and emergency action coordinator. Call medical emergency phone number 911 and provide the nature of medical emergency, the location of the emergency (address, building, room number), and your name and phone number from which you are calling. Do not move victim unless absolutely necessary. Stay calm and ensure the victim until arrival of the professional medical help.

In cases involving exposure to hazardous materials, be prepared to assist the responding emergency personnel by consulting the SDS log and/or the Chemical Identification List (CIL).

Fire Emergency

When a fire is discovered, activate the nearest fire alarm (if installed). Notify the local fire department by calling 911 and notify the emergency action coordinator. In addition to sounding a fire alarm or if the fire alarm is not available, notify the site personnel about the fire emergency by two-way radio, phone paging, or verbal communication.

Fight the fire only if:

- The fire department has been notified;
- The fire is small and is not spreading to other areas;
- Escaping the area is possible by backing up to the nearest exit; and
- The fire extinguisher is in working condition and personnel are trained to use it.

Upon being notified about the fire emergency, occupants must:

- Calmly evacuate the building with their work groups using the designated escape routes;
- Do not use the elevators during a fire, use the nearest stairway;
- Assemble in the designated area located in the Front Parking lot with their work groups;
- Remain outside until the competent authority (designated official or designee) announces that it is safe to reenter; and
- Not disburse to automobiles or attempt to leave the area without specific authorization from the designated official or supervisory personnel.

Designated officials, emergency coordinators, or supervisors must:

- Shut down utilities and equipment or protect records unless doing so jeopardizes their safety;
- Coordinate an orderly evacuation of personnel;
- Perform an accurate head count of personnel reported to the designated area;
- Determine a rescue method to locate missing personnel;
- Provide the fire department personnel with the necessary information about the facility; and
- Perform assessment and coordinate weather forecast office emergency closing procedures.

Area/Floor monitors must:

- Ensure that all employees have evacuated the area/floor; and
- Report any problems to the emergency coordinator at the assembly area.

Assistants to physically challenged persons should:

- Assist all physically challenged employees in an emergency evacuation.

Severe Weather and Natural Disasters

Tornado Preparation and Emergency

In the event of a tornado emergency, management has designated a safe shelter area within the building for employees and individuals. There are some general guidelines that may be used to aid in the selection of such spaces. When selecting a safe shelter, consider the lowest floor, preferably a basement; interior spaces such as rooms with no walls on the exterior; areas supported by secure, rigid structural frame members; or short roof spans. These safe shelter areas should have a first aid kit or medical supplies and several flashlights.

A warning will be issued by the emergency action coordinator via two-way radio, intercom system and/or cell phone. The emergency action coordinator will instruct all personnel to move to the designated shelter. Personnel should proceed in a calm, orderly fashion.

Emergency Action Plan

Each individual should stay with their work group. If an individual is away from their work group at the time the warning is issued, they should proceed to the nearest shelter or consider seeking shelter in a:

- Small interior room on the lowest floor and without windows;
- Hallway on the lowest floor away from doors and windows; or
- Room constructed with reinforced concrete, brick, or block with no windows.

Employees should not attempt to rejoin their workgroups until the tornado warning is announced to be over. Stay away from outside walls and windows. Once arriving to a shelter location, personnel should sit on the floor and bend at the waist, using arms to protect their heads and necks. Remain sheltered until the tornado threat is announced to be over. Individuals should not attempt to leave the building or attempt to disburse to automobiles.

Designated officials, emergency coordinators, or supervisors must shut down utilities and equipment or protect records unless doing so jeopardizes their safety. They must also coordinate an orderly evacuation of personnel, gather timecards, and perform an accurate head count based on time cards. These officials will also determine a rescue method to locate missing personnel and provide the responding emergency personnel with the necessary information about the facility.

Tornado Watch Procedures. A Tornado Watch means that conditions are right for severe thunderstorms and possible tornadoes to develop.

When notified of a tornado watch in the area:

Senior Management

1. Senior management will tune the radio to the National Weather Service channel to stay current on the storm's progress.
2. Management will check to ensure that all safe shelter areas are unlocked and accessible.
3. Management will check to be sure that medical supplies and flashlights are stored in the safe shelter areas.
4. If time permits, management will "X" the windows with tape or secure plywood to the outside of windows.

Tornado Warning Procedures A Tornado Warning means a tornado has been seen or detected by radar. Upon issuance of a Tornado Warning:

1. Senior management will inform all employees and individuals to take cover in shelter areas immediately.
2. Management will make the following announcement on the P.A. system: "Ladies and gentlemen, the National Weather Service has issued a Tornado Warning for this area. Due to this warning, Altura Engineering and Design is being temporarily closed. Please do not leave the building."
3. Management will assign someone to shut off the main gas and electrical systems.
4. Afterwards, management will coordinate first aid assistance for individuals.

Indoor Floods

Be ready to evacuate as directed by the emergency action coordinator or the designated official. Follow the recommended primary or secondary evacuation routes.

Outdoor Floods

Emergency Action Plan

Climb to high ground and stay there. Avoid walking or driving through flood water. If a car stalls, abandon it immediately and climb to higher ground.

Blizzard

If indoors, stay calm and await instructions from the emergency coordinator or the designated official. Stay indoors. If there is no heat, close off unneeded rooms or areas, stuff towels or rags in cracks under doors, and cover windows at night. Eat and drink. Food provides the body with energy and heat. Fluids prevent dehydration. Lastly, wear layers of loose-fitting, light-weight, warm clothing, if available.

If outdoors, find a dry shelter. Cover all exposed parts of the body. However, if shelter is not available, prepare a lean-to, wind break, or snow cave for protection from the wind. Build a fire for heat and to attract attention. Place rocks around the fire to absorb and reflect heat. Do not eat snow. It will lower your body temperature; melt it first.

If stranded in a car or truck, stay in the vehicle! Run the motor about ten minutes each hour. Open the windows a little for fresh air to avoid carbon monoxide poisoning. Make sure the exhaust pipe is not blocked. Furthermore, make yourself visible to rescuers. Turn on the dome light at night when running the engine. Tie a colored cloth to your antenna or door. Raise the hood after the snow stops falling. Lastly, exercise to keep blood circulating and to keep warm.

Extended Power Loss

In the event of extended power loss to a facility, certain precautionary measures should be taken depending on the geographical location and environment of the facility.

Unnecessary electrical equipment and appliances should be turned off in the event that power restoration would surge, causing damage to electronics and effecting sensitive equipment.

Facilities with freezing temperatures should turn off and drain the following lines in the event of a long-term power loss.

- Fire sprinkler system;
- Standpipes;
- Potable water lines;
- Toilets.

Add propylene-glycol to drains to prevent traps from freezing.

Equipment containing fluids that may freeze due to long-term exposure to freezing temperatures should be moved to heated areas, drained of liquids, or provided with auxiliary heat sources.

Upon restoration of heat and power, electronic equipment should be brought up to ambient temperatures before energizing to prevent condensate from forming on circuitry. Also, fire and potable water piping should be checked for leaks from freeze damage after the heat has been restored to the facility and water turned back on.

Chemical Spills

Spill containment and security equipment is located: _____

Personal protective equipment is located: _____

SDSs are located: _____

When a large chemical spill has occurred:

1. Immediately notify the designated official and emergency action coordinator.
2. Contain the spill with available equipment (e.g., pads, booms, absorbent powder, etc.).
3. Secure the area and alert other site personnel.
4. Do not attempt to clean the spill unless trained to do so.
5. Attend to injured personnel and call the medical emergency number if required.
6. Call a local spill cleanup company or the fire department (if an arrangement has been made) to perform a large chemical (e.g., mercury) spill cleanup.

Name of Spill Cleanup Company: _____

Phone Number: _____

7. Evacuate building as necessary.

When a small chemical spill has occurred:

1. Notify the emergency action coordinator or supervisor.
2. If toxic fumes are present, secure the area with caution tapes or cones to prevent other personnel from entering.
3. Deal with the spill in accordance with the instructions described in the SDS.
4. Small spills must be handled in a safe manner while wearing the proper PPE.
5. Review the general spill cleanup procedures.

Critical Operations

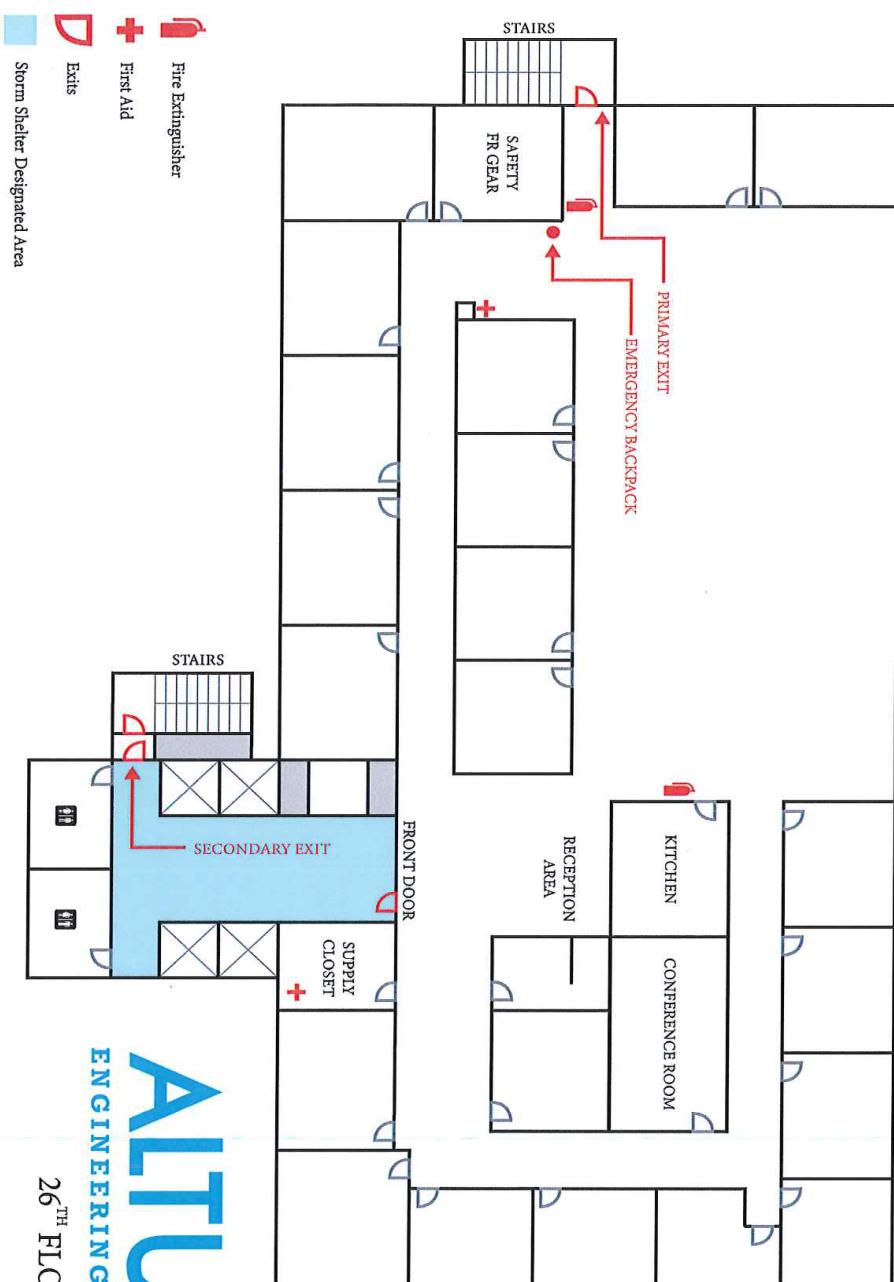
During some emergency situations, it will be necessary for some specially assigned personnel to remain at the work areas to perform critical operations.

Personnel involved in critical operations may remain on the site upon the permission of the site designated official or emergency action coordinator.

Emergency Evacuation: Map 26th Floor



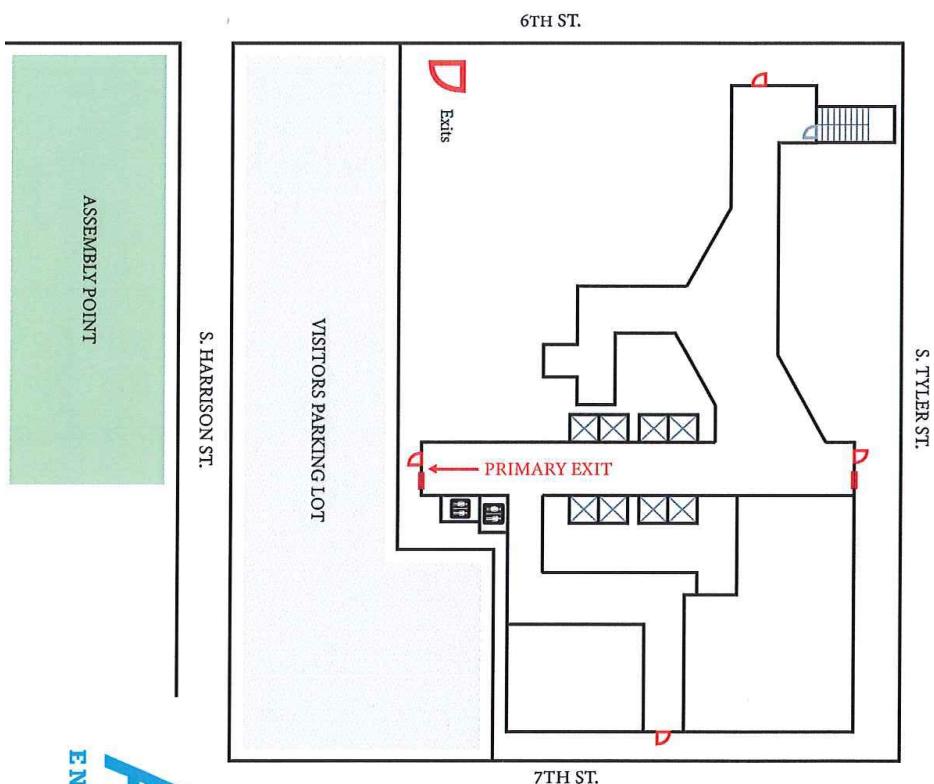
Safety Floor Plan



Emergency Evacuation: Map 1st Floor



Safety Floor Plan



ALTURA
ENGINEERING & DESIGN
1st FLOOR

Fire Safety Plan

The purpose of Altura Engineering and Design' fire safety plan is to prevent potential injuries and deaths, and to protect Altura Engineering and Design's property from damage or loss due to fire. This plan includes fire prevention, building exits, fire extinguishing, emergency evacuation, and employee training.

This plan will be reviewed with all new employees when they begin their jobs and with all employees when the plan is changed.

Fire Prevention

Our first line of defense against fire is to prevent it in the first place. It is the responsibility of all employees to prevent fires. All employees will be informed of the potential fire hazards in their work areas and will be trained in safe work procedures and practices. Employees are expected to follow proper procedures to prevent fires and to notify their supervisors or other management personnel if they observe any condition that could lead to the ignition of a fire or could increase the spread of a fire.

The following are some general fire prevention practices and procedures that will be followed:

- All ignition sources (i.e., open flames, cutting torches, spark producing equipment, electric motors, heating equipment, etc.) will be controlled. All contact of ignition sources with combustible and flammable materials will be avoided. All employees will keep all combustible materials at least five feet from such ignition sources and all flammable liquids at least twenty feet from ignition sources.
- Extensive use of electrical extension cords should be avoided. Any damaged or frayed electrical wiring, equipment cords, or extension cords will be removed from service immediately and replaced or repaired.
- Any use of flammable liquids will be done in a manner that prevents spills and prevents the flammable liquid or its vapor or spray from coming into contact with any ignition source. All flammable liquids will be stored in proper flammable liquid storage containers and kept in the proper storage cabinets.
- Housekeeping and storage practices are critical to preventing fires. Any combustible materials will be stored in neat stacks with adequate aisle space provided to prevent the easy spread of fire and to allow for access to extinguish any fire that may start. Trash, scrap, and other unnecessary combustibles must be cleaned up immediately and placed in proper disposal containers.
- Smoking is restricted to designated areas.

Company Fire Exits

Each area of the building or worksite has at least two means of escape, and these escapes will be used in a fire emergency. The location of exits and the path of escape will be shown on maps and posted throughout the building as necessary.

Fire exit doors will not be blocked or locked during business hours in order to prevent their emergency use when employees are within the building.

Exit routes from the worksite will be clear and free of obstructions. All exits are marked with signs designating exits from the premises.

Fire Extinguishers

Each area of the company will have a full complement of the proper type of fire extinguisher for the fire hazards present. All fire extinguishers will be inspected annually by a fire protection equipment company and tagged with the date of inspection. If a fire extinguisher is used or discharged for any reason, it will be removed from service and replaced with another properly charged fire extinguisher while it is being recharged.

Employees who are expected or anticipated to use fire extinguishers will be instructed on the hazards of fighting fires, how to properly operate the fire extinguishers available, and what procedures to follow in alerting others to the fire emergency. These employees will only attempt to extinguish small incipient fires. If a fire cannot be immediately and easily extinguished with a fire extinguisher, the employees will evacuate the building. All employees who are not trained and designated to fight fires are to immediately evacuate the premises at the first sign of fire or initiation of the fire alarm and are prohibited from using an extinguisher and re-entering the premises.

A portable fire extinguisher is a first aid device and is very effective when used while the fire is small. The use of fire extinguisher that matches the class of fire by a person who is well trained can save both lives and property. Portable fire extinguishers must be installed in workplaces regardless if other firefighting measures are present. The successful performance of a fire extinguisher in a fire situation largely depends on its proper selection, inspection, maintenance, and distribution.

Classification of Fires and Selection of Extinguishers

Fires are classified into four general categories depending on the type of material or fuel involved. The type of fire determines the type of extinguisher that should be used to extinguish it.

Class A fires involve materials such as wood, paper, and cloth which produce glowing embers or char.

Class B fires involve flammable gases, liquids, and greases including gasoline and most hydrocarbon liquids which must be vaporized for combustion to occur.

Class C fires involve fires in live electrical equipment or in materials near electrically powered equipment.

Class D fires involve combustible metals such as magnesium, zirconium, potassium, and sodium.

Extinguishers will be selected according to the potential fire hazard, the construction and occupancy of facilities, hazard to be protected, and other factors pertinent to the situation.

Location and Marking of Extinguishers

Extinguishers will be conspicuously located and readily accessible for immediate use in the event of fire. They will be located along normal paths of travel and escape. Wall recesses and/or flush-mounted cabinets will be used as extinguisher locations wherever possible.

Extinguishers will be clearly visible. In locations where visual obstruction cannot be completely avoided, directional arrows will be provided to indicate the location of extinguishers, and the arrows will be marked with the extinguisher classification.

If extinguishers intended for different classes of fire are located together, they will be conspicuously marked to ensure that the proper class extinguisher selection is made at the time of a fire. Extinguisher classification markings

will be located on the front of the shell above or below the extinguisher nameplate. Markings will be of a size and form to be legible from a distance of three feet.

Condition of Fire Extinguishers

Portable extinguishers will be maintained in a fully charged and operable condition. They will be kept in their designated locations at all times when not being used. When extinguishers are removed for maintenance or testing, a fully charged and operable replacement unit will be provided.

Mounting and Distribution of Extinguishers

Extinguishers will be installed on hangers, brackets, in cabinets, or on shelves. Extinguishers having a gross weight not exceeding 40 pounds will be so installed that the top of the extinguisher is not more than 3-1/2 feet above the floor.

Extinguishers mounted in cabinets or wall recesses or set on shelves will be placed so that the extinguisher operating instructions face outward. The location of such extinguishers will be made conspicuous by marking the cabinet or wall recess in a contrasting color which will distinguish it from the normal décor.

Extinguishers must be distributed in such a way that the amount of time needed to travel to their locations and back to the fire does not allow the fire to get out of control. OSHA requires that the travel distance for Class A and Class D extinguishers not exceed 75 feet. The maximum travel distance for Class B extinguishers is 50 feet because flammable liquid fires can get out of control faster than Class A fires. There is no maximum travel distance specified for Class C extinguishers, but they must be distributed on the basis of appropriate patterns for Class A and B hazards.

Inspection and Maintenance of Extinguishers

Once an extinguisher is selected, purchased, and installed, it is the responsibility of the Safety Coordinator to oversee the inspection, maintenance, and testing of fire extinguishers to ensure that they are in proper working condition and have not been tampered with or physically damaged. In addition to the annual inspection, previously mentioned, all fire extinguishers will be visually inspected on a monthly basis by a competent person. The date and initials of the inspector will be documented on the inspection tag.

Emergency Fire Evacuation

If any employee discovers a fire or smoke, the employee will immediately pull the nearest fire alarm box. If there is time and it is safe to do so, the employee will contact a member of management to report the fire. Management will then make an announcement over the public address system that all employees and customers are to evacuate the building. Management will then call 911 and report the fire to the fire department.

If a fire alarm sounds or a fire is otherwise announced, all employees except those designated and trained to use fire extinguishers are expected to immediately exit the premises by proceeding to the nearest exit in an orderly fashion. If the nearest exit is blocked by fire or smoke, the employees should proceed to an alternate exit. There should be no running, shouting, or pushing. A calm, orderly evacuation is the safest for all concerned.

Upon exiting the building, all employees and personnel are to proceed to the designated meeting areas away from the building so as not to hamper access by fire fighters and for which to be accounted. Supervisors and managers will account for all of their employees to ensure that no one is still in the building.

Fire Safety Plan

Where applicable, special procedures for helping physically impaired employees will be established. This will be done on a case-by-case basis when the employee is first hired or when the physical impairment first occurs.

Employee Training

All new employees will receive fire prevention and emergency evacuation training when they are hired. All employees will also receive refresher training and a review of this plan on an annual basis.

Altura Engineering and Design will hold fire drills and will include a practice evacuation of the building at least annually. These drills will be used to evaluate employee response and behavior and will help us determine where more training is needed.

Those employees who are designated and authorized to use fire extinguishers to fight small fires will receive training in the proper use of extinguishers, how to extinguish a fire, the hazards involved in fighting fires, when not to fight a fire, and when to evacuate the area.

The Safety Coordinator administers Altura Engineering and Design's fire prevention and life safety inspection programs. This includes reviewing all new building construction and renovations to ensure compliance with applicable state, local, and national fire and life safety standards.

Flammable and Combustible Materials

Substitution

Flammable liquids sometimes may be substituted by relatively safe materials in order to reduce the risk of fires. Any substituted material should be stable and nontoxic and should either be nonflammable or have a high flashpoint.

Storage

Flammable and combustible liquids require careful handling at all times. The proper storage of flammable liquids within a work area is very important in order to protect personnel from fire and other safety and health hazards.

Cabinets. Not more than 120 gallons of Class I, Class II, and Class IIIA liquids may be stored in a storage cabinet. Of this total, not more than 60 gallons may be Class I and Class II liquids. Not more than three such cabinets (120 gallons each) may be located in a single fire area except in an industrial area.

Storage Inside Buildings. Where approved storage cabinets or rooms are not provided, inside storage will comply with the following basic conditions:

The storage of any flammable or combustible liquid will not physically obstruct a means of escape from the building or area.

Containers of flammable or combustible liquids will remain tightly sealed except when transferred, poured, or applied. Remove only that portion of liquid in the storage container required to accomplish a particular job.

If a flammable and combustible liquid storage building is used, it will be a one-story building devoted principally to the handling and storing of flammable or combustible liquids. The building will have two-hour fire-rated exterior walls having no opening within ten feet of such storage.

Flammable paints, oils, and varnishes in one- or five-gallon containers used for building maintenance purposes may be stored temporarily in closed containers outside approved storage cabinets or room if kept at the job site for less than 10 calendar days.

Ventilation

Every inside storage room will be provided with a continuous mechanical exhaust ventilation system. To prevent the accumulation of vapors, the location of both the makeup and exhaust air openings will be arranged to provide as far as practical air movement directly to the exterior of the building; if ducts are used, they will not be used for any other purpose.

Elimination of Ignition Sources

All nonessential ignition sources must be eliminated where flammable liquids are used or stored. The following is a list of some of the more common potential ignition sources:

- Open flames such as cutting and welding torches, furnaces, matches, and heaters should be kept away from flammable liquids operations. Cutting or welding on flammable liquids equipment should not be performed unless the equipment has been properly emptied and purged with a neutral gas such as nitrogen.
- Electrical sources of ignition such as D.C. motors, switches, and circuit breakers should be eliminated where flammable liquids are handled or stored. Only approved explosion-proof devices should be used in these areas.
- Mechanical sparks can be produced as a result of friction. Only non-sparking tools should be used in areas where flammable liquids are stored or handled.
- Static sparks can be generated as a result of electron transfer between two contacting surfaces. The electrons can discharge in a small volume, raising the temperature to above the ignition temperature. Every effort should be made to eliminate the possibility of static sparks. Also, proper bonding and grounding procedures must be followed when flammable liquids are transferred or transported.

Removal of Incompatibles

Materials that can contribute to a flammable liquid fire should not be stored with flammable liquids. Examples are oxidizers and organic peroxides, which, on decomposition, can generate large amounts of oxygen.

Flammable Gases

Generally, flammable gases pose the same type of fire hazards as flammable liquids and their vapors. Many of the safeguards for flammable liquids also apply to flammable gases; other properties such as toxicity, reactivity, and corrosiveness also must be taken into account. Also, a gas that is flammable could produce toxic combustion products.

Fire Safety Inspections and Housekeeping

First line supervisors and the Safety Coordinator are responsible for conducting work site surveys at least annually. These surveys should include observations of work site safety and housekeeping issues and should specifically address proper storage of chemicals and supplies, unobstructed access to fire extinguishers, and emergency evacuation routes. Also, they should determine if an emergency evacuation plan is present in work areas and that personnel are familiar with the plan.

Emergency Escape

Every exit will be clearly visible or the route to it conspicuously identified in such a manner that every occupant of the building will readily know the direction of escape from any point. At no time will exits be blocked.

Exits and accesses to exits will be marked by a readily visible sign. Each exit sign (other than internally illuminated signs) will be illuminated by a reliable light source providing not less than five-foot candles on the illuminated surface.

Facilities Design Review

Facilities will be designed in a manner consistent with health and safety regulations and standards of good design. Altura Engineering and Design management, together with the Safety Coordinator, will ensure that an appropriate health and safety review of facility concepts, designs, and plans is done. A formal design review process is currently in place for all new construction efforts.

Occupant Emergency Plan for Persons with Disabilities

The first line supervisor is assigned the responsibility to assist persons with disabilities under their supervision. An alternate assistant will be chosen by the supervisor. The role of the two assistants is to report to their assigned persons and to either assist in evacuation or ensure that the persons with disabilities is removed from danger.

Supervisors, alternates, and the person with a disability will be trained by the Safety Coordinator on available escape routes and methods.

A list of persons with disabilities is kept by the Safety Coordinator. This list is updated by the Safety Coordinator and the office of Personnel Management.

Visitors who have disabilities will be assisted in a manner similar to that of employees. The host of the person with disabilities will assist in their evacuation.

Emergencies Involving Fire

Fire Alarms

In the event of a fire emergency, a fire alarm will sound for the building.

Evacuation Routes and Plans

Each facility will have an emergency evacuation plan. All emergency exits will conform to NFPA standards.

Should evacuation be necessary, go to the nearest exit or stairway and proceed to the designated meeting areas which are located on the east and west sides of the building. Most stairways are fire resistant and present barriers to smoke if the doors are kept closed.

Do not use elevators. Should the fire involve the control panel of the elevator or the electrical system of the building, power in the building may be cut and you could be trapped between floors. Also, the elevator shaft can become a flue, lending itself to the passage and accumulation of hot gases and smoke generated by the fire.

1. Learn at least two escape routes and emergency exits from your area.
2. Never use an elevator as part of your escape route.
3. Learn to activate a fire alarm.
4. Learn to recognize alarm sounds.
5. Take an active part in fire evacuation drills.

Emergency Coordinators

Emergency coordinators will be responsible for verifying that personnel have evacuated from their assigned areas.

Fire Emergency Procedures

If you discover a fire:

1. Activate the nearest fire alarm.
2. Notify the fire department by dialing 911. Give your location, the nature of the fire, and your name.
3. Notify the manager on duty and other occupants.
4. Notify the Safety Coordinator.

Fight the fire ONLY if:

1. The fire department has been notified of the fire.
2. The fire is small and confined to its area of origin.
3. You have a way out and can fight the fire with your back to the exit.
4. You have the proper extinguisher in good working order and know how to use it.
5. If you are not sure of your ability or the fire extinguisher's capacity to contain the fire, leave the area.

If you hear a fire alarm:

1. Evacuate the area. Close windows, turn off gas jets, and close doors as you leave.
2. Leave the building and move away from exits and out of the way of emergency operations.
3. Assemble in a designated area.
4. Report to the manager or monitor so they can determine that all personnel have evacuated the area.
5. Remain outside until competent authority (physical security, Safety Coordinator, or your supervisor) states that it is safe to re-enter.

Hazard Communication/Global Harmonization System (GHS)

Chemical Safety Plan

This Hazard Communication Chemical Safety Plan requires Altura Engineering and Design to provide information about the hazardous chemicals to which employees will be exposed, chemical product labels and other forms of warning, Safety Data Sheets (SDSs) related to the chemicals, appropriate training, and a written hazard communication program. The Safety Coordinator has the specific responsibility of implementing the plan in accordance with the OSHA Hazard Communication Standard CFR 29 1910.1200. Supervisors of employees have the responsibility of ensuring the safety plan is followed. The Safety Coordinator is also responsible for providing consultation and specific training when needed.

Supervisors of employees who work in areas where hazardous chemicals are stored, handled, or used are responsible for:

- Creating and maintaining an inventory of all hazardous chemicals.
- Ensuring proper labeling of all hazardous chemicals.
- Acquiring and maintaining SDSs for all hazardous chemicals located in the work area.
- Informing employees of any operations in their work areas where hazardous chemicals are present.
- The location and availability of the written hazard communication program, the chemical inventory, and all SDSs.
- Training employees about hazardous chemicals used in the work area.

Hazardous Chemicals Inventory

Supervisors or their designees are required to maintain a list of all hazardous chemicals known to be present in each work area (e.g. shop area, section, etc.) and to update the list as necessary. This inventory list must identify each hazardous chemical by the primary name on the label and the manufacturer or distributor of the chemical. The inventory list must be kept in the work area and accessible to anyone requesting it. For example, the list could be kept in a three-ring binder with the cover clearly labeled "HAZARDOUS CHEMICALS".

This inventory should list all hazardous chemicals found in the work area. This includes laboratory chemicals, janitorial supplies, compressed gases, cleaning products, materials found in the maintenance departments (such as lubricating oils, solvents, etc.), and specialty chemicals used by everyone.

Labeling Requirements

Supervisors must ensure that all hazardous chemicals in their area of responsibility are properly labeled. Labels should list at least the chemical identity, appropriate hazard warnings, and the name and address of the manufacturer, importer, or other responsible party. Portable containers of working solutions must be labeled appropriately unless they are intended for immediate use by the employee who prepares it. The contents of all vessels containing chemicals or products such as cleaning solutions must be identified by name on the container.

Chemicals stored in bulk quantities and storage tanks are required to be adequately labeled. Storage tanks or drums can be labeled collectively rather than labeling individual containers if they are not removed from the labeled area and if the hazards are the same.

Hazard Communication/Global Harmonization System (GHS)

Safety Data Sheets (SDS)

Supervisors are responsible for acquiring and updating SDSs for all hazardous chemicals found in their work area. The SDSs should be reviewed before using the chemical and kept in the work area so that they are readily accessible to all.

To obtain specific SDSs, the supervisor will procure them from the Safety Coordinator.

Only the most current SDS for a hazardous chemical from the same manufacturer will be kept on file so long as the new SDS has the same formulation of the chemicals from the same manufacturer. To obtain further information or assistance in interpreting SDSs, contact the Safety Coordinator.

Employee Training and Information

Training. It is the responsibility of supervisors to recognize when training is needed for their employees and to arrange for such training. Supervisors are not responsible for providing any training (in the sense that they must develop and present the training program) but must recognize the need for training and arrange for their employees to receive it.

Training is available in the following formats:

- A presentation arranged or presented by the local safety committee;
- A video presentation from the company library;
- A presentation arranged or presented by the Safety Coordinator or staff; and
- A presentation arranged or presented by the supervisor
- A third party safety consultant

Employees must be trained on the proper safeguards, safe use, and physical and health hazards of hazardous chemicals used on the job before beginning work with those chemicals or whenever a new hazardous chemical or procedure is introduced into their work area. Also, it is recommended that employees receive annual training updates.

Training will include at least the following topics:

- Physical and health hazards of chemicals in the work area;
- Methods and observation techniques used to detect the presence or release of a hazardous chemical;
- How to lessen or prevent exposure to these hazardous chemicals through usage of controls, work practices, and personal protective equipment;
- How to use SDS information;
- How to read and understand labels; and
- Contingency plans for medical and chemical accident response.

All training will be documented by recording the training session subject(s), date, attendees, for the training session. The Supervisor will maintain these records and provide copies of all records to the Safety Coordinator.

New Employees. Information about Altura Engineering and Design's Hazard Communication Program will be disseminated to all new employees in the Employee Safety Handbook. All new employees must be trained by their supervisors about hazardous chemicals in their work area at the time of their initial assignment and whenever a new hazard is introduced into the work area.

Hazard Communication/Global Harmonization System (GHS)

Non-Routine Tasks. Employees performing non-routine tasks can be exposed to chemicals from unusual and unsuspected sources. Written procedures will be developed for every non-routine task by the supervisor of the employees who will perform the task. The information will include chemical hazards associated with the performance of the tasks and appropriate protective measures required to perform the task safely. The procedures will be included in the local copy of the Hazard Communication Program. The Safety Coordinator will provide advice and guidance upon request.

Global Harmonization System (GHS)

The purpose of this section is to ensure that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees. The requirements of this section are intended to be consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This Global Harmonization System safety plan requires Altura Engineering and Design to provide information about the hazardous chemicals to which employees could potentially be exposed to by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, safety data sheets and employee training.

The Safety Coordinator has the specific responsibility of implementing the plan in accordance with the OSHA Hazard Communication/Global Harmonization System Standard 29 CFR 1910.1200. Supervisors of employees have the responsibility of ensuring the safety plan is followed. The Safety Coordinator is also responsible for providing consultation and specific training when needed.

Requirements

The process of developing the GHS communication tools, is to present hazard information in a manner that employees can easily understand and that will thus minimize the possibility of adverse effects resulting from exposure. The GHS identifies some guiding principles to assist in this process:

- Information should be conveyed in more than one way, e.g., text and symbols;
- The comprehensibility of the components of the system should take account of existing studies and literature as well as any evidence gained from testing;
- The phrases used to indicate degree (severity) of hazard should be consistent across the health, physical and environmental hazards.

Comprehensibility is challenging for a single culture and language. Global harmonization has numerous complexities. Some factors that affected the work include:

- Different philosophies in existing systems on how and what should be communicated;
- Language differences around the world;
- Ability to translate phrases meaningfully;
- Ability to understand and appropriately respond to symbols/pictograms.

Hazard Communication/Global Harmonization System (GHS)

Labels

What does a label look like?

Existing systems have labels that look different for the same product, which leads to worker confusion, consumer uncertainty, and the need for additional resources to maintain different systems. This results at a minimum in a straightforward label that has a product identity, hazard statement and supplier identification. Some products can also have additional labeling requirements depending on their end use.

What are the GHS label elements?

Some GHS label elements have been standardized (identical with no variation) and are directly related to the endpoints and hazard level. Other label elements are harmonized with common definitions and/or principles. See Figure 4.8 for an illustration of the GHS label elements.

The standardized label elements included in the GHS are:

- **Symbols (hazard pictograms):** Convey health, physical and environmental hazard information, assigned to a GHS hazard class and category.
- **Signal Words:** "Danger" or "Warning" is used to emphasize hazards and indicate the relative level of severity of the hazard, assigned to a GHS hazard class and category.
- **Hazard Statements:** Standard phrases assigned to a hazard class and category that describe the nature of the hazard.

The symbols, signal words, and hazard statements have all been standardized and assigned to specific hazard categories and classes, as appropriate. This approach makes it easier for countries to implement the system and should make it easier for companies to comply with regulations based on the GHS. These standardized elements are not subject to variation, and should appear on the GHS label as indicated in the GHS for each hazard category/class in the system. The use of symbols, signal words or hazard statements other than those that have been assigned to each of the GHS hazards would be contrary to harmonization.

Symbols/Pictograms

The GHS symbols have been incorporated into pictograms for use on the GHS label. Pictograms include the harmonized hazard symbols plus other graphic elements, such as borders, background patterns or colors which are intended to convey specific information. For transport, pictograms (Table 4.10) will have the background, symbol and colors currently used in the UN Recommendations on the Transport of Dangerous Goods, Model Regulations. For other sectors, pictograms (Table 4.9) will have a black symbol on a white background with a red diamond frame. A black frame may be used for shipments within one country. Where a transport pictogram appears, the GHS pictogram for the same hazard should not appear.

Signal Words

The signal word indicates the relative degree of severity of a hazard. The signal words used in the GHS are "**Danger**" for the more severe hazards, and "**Warning**" for the less severe hazards.

Signal words are standardized and assigned to the hazard categories within endpoints. Some lower level hazard categories do not use signal words. Only one signal word corresponding to the class of the most severe hazard should be used on a label.

Hazard Statements

Hazard Communication/Global Harmonization System (GHS)

Hazard statements are standardized and assigned phrases that describe the hazard(s) as determined by hazard classification. An appropriate statement for each GHS hazard should be included on the label for products possessing more than one hazard. Table 4-11 illustrates the assignment of standardized GHS label elements for the acute oral toxicity categories.

Figure 4.8

SAMPLE LABEL	
CODE _____ Product Name _____	Product Identifier
Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____	
Supplier Identification	
<p>Keep container tightly closed. Store in a cool, well-ventilated place that is locked. Keep away from heat/sparks/open flame. No smoking. Only use non-sparking tools. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Ground and bond container and receiving equipment. Do not breathe vapors. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Dispose of in accordance with local, regional, national, international regulations as specified.</p>	
<p>In Case of Fire: use dry chemical (BC) or Carbon Dioxide (CO₂) fire extinguisher to extinguish.</p>	
<p>First Aid If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.</p>	
<p>Hazard Pictograms</p>	
<p>Signal Word Danger</p>	
<p>Highly flammable liquid and vapor. May cause liver and kidney damage.</p>	
<p>Hazard Statements</p>	
<p>Precautionary Statements</p>	
<p>Supplemental Information</p>	
<p>Directions for Use _____ _____</p>	
<p>Fill weight: _____ Lot Number: _____ Gross weight: _____ Fill Date: _____ Expiration Date: _____</p>	

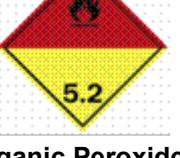
Hazard Communication/Global Harmonization System (GHS)

Table 4.9

 <ul style="list-style-type: none"> ▪ Oxidizers 	 <ul style="list-style-type: none"> ▪ Flammables ▪ Self-Reactive ▪ Pyrophoric ▪ Self-Heating ▪ Emits Flammable Gas ▪ Organic Peroxides 	 <ul style="list-style-type: none"> ▪ Explosives ▪ Self-Reactive ▪ Organic Peroxides
 <ul style="list-style-type: none"> ▪ Acute toxicity (severe) 	 <ul style="list-style-type: none"> ▪ Corrosives 	 <ul style="list-style-type: none"> ▪ Gases Under Pressure
 <ul style="list-style-type: none"> ▪ Carcinogen ▪ Respiratory Sensitizer ▪ Reproductive Toxicity ▪ Target Organ Toxicity ▪ Mutagenicity ▪ Aspiration Toxicity 	 <ul style="list-style-type: none"> ▪ Environmental Toxicity 	 <ul style="list-style-type: none"> ▪ Irritant ▪ Dermal Sensitizer ▪ Acute toxicity (harmful) ▪ Narcotic Effects ▪ Respiratory Tract Irritation

Hazard Communication/Global Harmonization System (GHS)

Table 4.10

		
Flammable Liquid Flammable Gas Flammable Aerosol	Flammable solid Self-Reactive Substances	Pyrophoric (Spontaneously Combustible) Self-Heating Substances
		
Substances, which in contact with water, emit flammable gases (Dangerous When Wet)	Oxidizing Gases Oxidizing Liquids Oxidizing Solids	Explosive Divisions 1.1, 1.2, 1.3
		
Explosive Division 1.4	Explosive Division 1.5	Explosive Division 1.6
		
Compressed Gases	Acute Toxicity (Poison): Oral, Dermal, Inhalation	Corrosive
		
Marine Pollutant	Organic Peroxides	

Hazard Communication/Global Harmonization System (GHS)

Table 4.11

ACUTE ORAL TOXICITY - Annex 1					
	Category 1	Category 2	Category 3	Category 4	Category 5
LD ₅₀	£ 5 mg/kg	> 5 < 50 mg/kg	³ 50 < 300 mg/kg	³ 300 < 2000 mg/kg	³ 2000 < 5000 mg/kg
Pictogram					No symbol
Signal word	Danger	Danger	Danger	Warning	Warning
Hazard statement	Fatal if swallowed	Fatal if swallowed	Toxic if swallowed	Harmful if swallowed	May be harmful if swallowed

Other GHS label elements include:

- **Precautionary Statements and Pictograms:** Measures to minimize or prevent adverse effects.
- **Product Identifier (ingredient disclosure):** Name or number used for a hazardous product on a label or in the SDS.
- **Supplier identification:** The name, address and telephone number should be provided on the label.
- **Supplemental information:** non-harmonized information.

Precautionary Statements and Pictograms

Precautionary information supplements the hazard information by briefly providing measures to be taken to minimize or prevent adverse effects from physical, health, or environmental hazards. First aid is included in precautionary information. The GHS label should include appropriate precautionary information, statements, and pictograms that can be used on labels.

Four types of precautionary statements covering: prevention, response in cases of accidental spillage or exposure, storage, and disposal. The precautionary statements have been linked to each GHS hazard statement and type of hazard. The goal is to promote consistent use of precautionary statements.

Product Identifier (Ingredient Disclosure)

A product identifier should be used on a GHS label and it should match the product identifier used on the SDS. Where a substance or mixture is covered by the UN Model Regulations on the Transport of Dangerous Goods, the UN proper shipping name should also be used on the package.

The GHS label for a substance should include the chemical identity of the substance (name as determined by IUPAC, ISO, CAS or technical name). For mixtures/alloys, the label should include the chemical identities of all ingredients that contribute to acute toxicity, skin corrosion or serious eye damage, germ cell mutagenicity, carcinogenicity, reproductive toxicity, skin or respiratory sensitization, or Target Organ Systemic Toxicity (TOST), when these hazards appear on the label. Where a product is supplied exclusively for workplace use, the Competent

Hazard Communication/Global Harmonization System (GHS)

Authority may give suppliers discretion to include chemical identities on the SDS, in lieu of including them on labels. The Competent Authority rules for confidential business information (CBI) take priority over the rules for product identification.

Supplier Identification

The name, address and telephone number of the manufacturer or supplier of the product should be provided on the label.

Supplemental Information

Supplemental label information is non-harmonized information on the container of a hazardous product that is not required or specified under the GHS. In some cases, this information may be required by a Competent Authority or it may be additional information provided at the discretion of the manufacturer/distributor. The GHS provides guidance to ensure that supplemental information does not lead to wide variation in information or undermine the GHS information. Supplemental information may be used to provide further detail that does not contradict or cast doubt on the validity of the standardized hazard information. It also may be used to provide information about hazards not yet incorporated into the GHS. The labeler should have the option of providing supplementary information related to the hazard, such as physical state or route of exposure, with the hazard statement.

How are multiple hazards handled on labels?

Where a substance or mixture presents more than one GHS hazard, there is a GHS precedence scheme for pictograms and signal words. For substances and mixtures covered by the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the precedence of symbols for physical hazards should follow the rules of the UN Model Regulations.

For health hazards the following principles of precedence apply for symbols:

- if the skull and crossbones apply, the exclamation mark should not appear;
- if the corrosive symbol applies, the exclamation mark should not appear where it is used for skin or eye irritation;
- if the health hazard symbol appears for respiratory sensitization, the exclamation mark should not appear where it is used for skin sensitization or for skin or eye irritation.
- if the signal word 'Danger' applies, the signal word 'Warning' should not appear. All assigned hazard statements should appear on the label. The Competent Authority may choose to specify the order in which they appear.

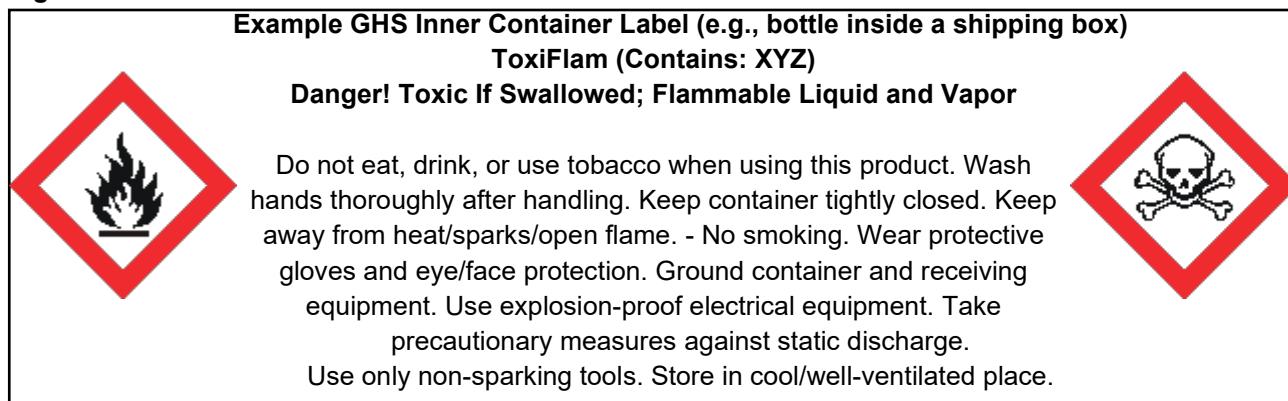
Is there a specific GHS label format / layout?

The GHS hazard pictograms, signal word and hazard statements should be located together on the label. The actual label format or layout is not specified in the GHS. National authorities may choose to specify where information should appear on the label or allow supplier discretion.

Figure 4.12 shows an example of a GHS label for the fictional product 'ToxiFlam'. The core GHS label elements are expected to replace the need for the array of different labels shown earlier for ToxiFlam. (Figure 4.8 also illustrates the GHS label elements.)

Hazard Communication/Global Harmonization System (GHS)

Figure 4.12



Transport pictograms (Table 4.10) are different in appearance than the GHS pictograms (Table 4.9). GHS pictograms are expected to be proportional to the size of the label text, so that generally the GHS pictograms would be smaller than the transport pictograms.

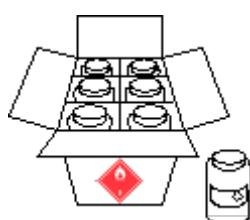


Figure 4.13 Combination Packaging (Outer box with inner bottles)

Figure 4.13 shows an arrangement for a combination packaging with an outer shipping box and inner bottles. The shipping box has a transportation pictogram. The inner bottles have a GHS label with a GHS pictogram.

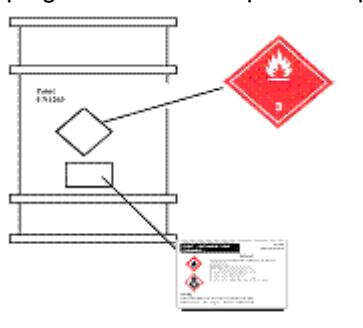


Figure 4.14 Drums

For a container such as a 55-gallon drum, the transport required markings and pictograms may be combined with the GHS label elements or presented separately.

Hazard Identification

Identification of Workplace Hazards

Periodic scheduled inspections will occur as a routine part of Altura Engineering and Design' business. Employees and supervisors will assess each work area and utilize the appropriate Risk Assessment/Hazard Identification reporting method to note any associated recognized hazards. Additionally, all employees are required to review their work area for any previously unrecognized hazards prior to starting any new tasks. If any hazards are realized, employees must notify their supervisor and utilize the appropriate Risk Assessment/Hazard Identification reporting method to note any associated recognized hazards. When a hazard is identified, the hazard will be reviewed and classified based on severity (i.e., Low Risk, Moderate Risk, Significant Risk, or High Risk) and the Control Hierarchy utilized to mitigate or, where possible, eliminate the risk.

Control Hierarchy:

- Elimination of the hazard
- Substitution of the hazardous process or materials with safer processes or materials
- Engineering controls (i.e., isolation)
- Administrative controls (i.e. worker variance or rotation)
- Personal protective equipment (PPE)

Depending on the severity of the hazard(s) identified, all employees and/or contractors are authorized to initiate a "stop work" as outlined in the Stop Work Authority Policy until the hazard is properly addressed.

Employees who wish to remain anonymous may report unsafe conditions or hazards by submitting a Safety Suggestion Form to their immediate supervisor without identifying themselves.

Employees must report immediately any unsafe condition or unsafe practice. No employee will be disciplined or discharged for reporting any workplace hazard or unsafe condition. Failure to report any obvious unsafe situation may result in disciplinary action up to and/or including termination.

The Safety Coordinator will ensure that SDSs are present, up-to-date, and accessible at the appropriate locations. In addition, the Safety Coordinator will ensure that employees are trained in the Hazard Communication Program before beginning work or changing job functions and will continuously monitor the worksite to verify employees follow safe work practices.

All employees will be trained in the Risk Assessment/Hazard identification process as part of their initial employee orientation and will receive refresher training on this program annually or as new hazards are identified. Employees must acknowledge receipt and understanding of the Safety Manual. The employee Safety Handbook Acknowledgement form is located on page 27.

Hazardous Material Spill Response

The purpose of this section is to establish Altura Engineering and Design' policy and procedures regarding management and employee response and actions to a hazardous material spill or leak.

Federal, state, and local environmental laws dictate the specific handling and disposal methods of hazardous materials. Failure to comply with these laws can be very costly as well as environmentally negligent. Altura Engineering and Design will fully comply with all laws and regulations pertaining to the handling and disposal methods of hazardous materials. Altura Engineering and Design will train all employees in the proper procedures to follow and what to do when they encounter a hazardous spill or leak.

Overview

Four classifications of hazardous chemicals exist with which employees will likely come into contact. These include ignitables, toxics, caustics, and reactives.

Ignitables

Ignitable products are either flammable or combustible. A spill of this nature creates two problems: one involving the potential for explosion or fire and the other involving the pollution of the environment. Examples of ignitables are gasoline, paint thinners, petroleum solvents, alcohol, and adhesives.

Toxics

Toxics are poisonous to the body and can cause illness or death. Examples of toxics are anti-freeze, paint, insecticides, fertilizer, and cleaning fluids.

Caustics

Caustics are things that burn, strongly irritate, corrode, or simply destroy the skin. Examples of caustics are acids and drain cleaners.

Reactives

Reactives are products that react violently when mixed with other products. The most common example of a reactive is dry or liquid chlorine.

Regardless of the nature of the spill and before starting any cleanup activities, employees will always secure the area around the spill. This includes asking all other unnecessary employees and customers to move a safe distance away from the spill site. The employees will also barricade or block access to the site with tape or other visual barriers as needed to keep people from wandering into the spill site.

Once the area is secure, management will be notified of the spill, its location, and when the area is clean. Management will notify public officials as necessary.

Hazardous Material Spill Response

Employees who are required and directed to conduct the cleanup will always check the warning label of an unbroken container or the SDS of the product involved in the spill or leak. Either the product label or the SDS should have cleanup procedures (Section VI of the SDS form). If not, or if time does not permit, the employees will consider the product extremely hazardous and use the following cleanup procedures:

1. Immediately shut off or eliminate all possible sources of ignition to include turning off anything that might produce a spark, flame, or friction.
2. A fire extinguisher must accompany all ignitable spill cleanups.
3. Cover the spill or leak with absorbent materials to reduce evaporation.
4. Ventilate the area as well as possible by opening doors and windows.
5. If a spill is large, a fan will be set up at least ten feet from the person cleaning up the spill. The fan will be behind the person cleaning up the spill to blow the hazardous vapors away from their breathing area.
6. Wear safety goggles, gloves, disposable overshoes, and respirator (as necessary) prior to cleaning up the substance.
7. Small spills (one pint or less) can be cleaned up with absorbent materials (rags, paper towels, etc.) and placed into a plastic bag. These bags will be labeled as flammable or combustible. The label on the bag must also state the name of the product in the bag, the quantity of material in the bag, the name of the manufacturer, and the date of the spill. The words "Hazardous Waste" must be clearly marked on the bag.
8. After the spill area is thoroughly dry, the spill area will be scrubbed with a mild detergent using a broom or mop.
9. The bags will then be placed in properly labeled containers for disposal. Altura Engineering and Design can accumulate hazardous waste on site for up to 90 days without a permit. Disposal will be in accordance to guidelines of local and state regulations.
10. All efforts will be taken to prevent hazardous material from entering sewage systems. If infiltration occurs, the fire department will be notified.

Employees in contact with the hazardous material will be informed to recognize physical symptoms of accidental exposures found in SDS Section IV. They will be told that if they develop a skin rash, shortness of breath, asthma, or any abnormal condition, they are to see a doctor immediately for an evaluation

General Waste Management

This Waste Management Plan specifies Altura Engineering and Design' procedure for the management, control, and disposition of items designated as waste material for all Altura Engineering and Design work sites and projects. The following is a list of the different categories of materials that will be generated during any project:

- Recyclable Materials
- Waste/Refuse Materials
- Reusable Materials

The procedures for the management, control, and disposition of these items are described in subsequent sections of this plan. All Altura Engineering and Design subcontractors are required to identify, maintain proper control of, and provide documentation for the disposition of materials described in this plan. Altura Engineering and Design is also responsible for the disposition of some waste as described below. The intention of this plan is to minimize the amount of waste generated by Altura Engineering and Design to the extent practicable.

The goal for this project is to ensure that at least 50% (or 75% if possible) of all waste material generated will be recycled, re-used, or otherwise diverted from direct landfill disposal. To accomplish this goal, Altura Engineering and Design intends to recycle and reuse as many types of material as possible. Each subcontractor is required to follow this plan for the disposition of the waste generated by the subcontractor's activity. Waste management will be an agenda item at all project meetings conducted by Altura Engineering and Design and its contractors. The waste management activities described in this plan will be maintained until substantial completion has been agreed upon by Altura Engineering and Design. All employees and contractors will be made aware of the proper method to dispose of wastes.

Waste Minimization

Altura Engineering and Design is dedicated to maintaining a stringent set of guidelines to control the amount of waste and debris disposed in a landfill. Altura Engineering and Design will communicate with field personnel and any subcontractors regarding minimization requirements during internal project meetings. Altura Engineering and Design recognizes that the majority of projects performed by Altura Engineering and Design are similar enough in nature and scope to produce similar types and amounts of waste materials; therefore, standard procedures can be followed for the handling of the waste materials. All projects will be evaluated prior to the start of the project to determine the amount of waste material to be generated and when necessary, arrangements will be made for additional containers to be utilized for the waste material removal.

Packaging

All vendors and their suppliers are encouraged to minimize the packaging for materials and equipment. Packing materials should be selected based on whether they can be recycled. This request will be communicated through project meetings, internal meetings, written correspondence, and through the project Waste Management Team, which is made up of contractor representatives.

Housekeeping

Housekeeping activities must minimize the amount of waste and maximize the amount of recyclable material that can be efficiently gathered at the local collection points and minimize the amount of refuse materials. Altura Engineering and Design will assign housekeeping responsibility to an on-site Altura Engineering and Design

General Waste Management

employee who will oversee and manage the field operations with regard to housekeeping and waste management. Any issues identified by this person will be discussed during internal safety and project meetings.

- 100 -

Altura Engineering and Design
Reviewed: October 2024

Updated: October 2024

Revised: October 2024

Maximizing Product Use

Layout and cutting procedures should be used to minimize the amount of waste materials. Cut-offs and other scrap materials should be applied on all projects to the extent practicable. This procedure will be emphasized to all employees and subcontractors during project meetings.

Materials Management

All materials should be stored in a manner that ensures protection from contamination and deterioration prior to use. Containers should be opened as needed and work should be sequenced to use materials efficiently and in a timely fashion. This ensures that the material meets the specified requirements and that unused or off-spec product will not become a waste. Waste materials should be properly stored and handled to minimize the potential for a spill or impact to the environment. During outdoor activities, receptacles must be covered to prevent dispersion of waste materials and to control the potential for run-off. This procedure will be emphasized to all subcontractors during project meetings.

Material Disposition

Recyclable Material

All material for recycling will be placed in designated containers furnished by Altura Engineering and Design and when required, the subcontractor. These containers will be labeled clearly and according to types of material. Material must be stored and handled so that it is acceptable to the recycler. Altura Engineering and Design employees and subcontractors will ensure their containers protect the contents from environmental contamination.

Altura Engineering and Design Furnished Dumpsters

Altura Engineering and Design will provide appropriate containers where necessary for local collection of material. The location of the containers and pickup/delivery will be coordinated between the container provider and Altura Engineering and Design management.

Subcontractor Furnished Dumpsters

Subcontractors will provide appropriate containers at the job site for local collection of material as indicated in their service agreement, where applicable. The location of the containers and pickup/delivery will be coordinated by the subcontractor and Altura Engineering and Design management.

Pick-up Frequency

Recycled material containers will be hauled off on an as-needed basis, with coordination required between subcontractor and Altura Engineering and Design management.

Empty Containers

The following does not apply to a container which contained a substance identified as an acute hazardous waste.

A container is considered RCRA-empty according to this description: After you have removed the contents using common practices (pouring, pumping, and aspirating) and it can't be emptied any further, the container holds less than one inch (2.5 centimeters) of residue (see table on following page). Containers that stored hazardous waste, but do not meet the RCRA-empty definition are considered hazardous waste.

Table: Container size affects RCRA-empty status

If the container capacity is...	The maximum allowed residue remaining in the container is...
119 gallons or less	1 inch (2.5 centimeters) or 3% by weight of the total capacity of the container or inner liner
More than 119 gallons	1 inch (2.5 centimeters) or 0.3% by weight of the total capacity of the container or inner liner

Containers with capacity of 25 gallons or less that meet the above criteria may be placed in the appropriate recycling container (i.e., roll-off, hopper, and basket). Empty containers with capacity greater than 25 gallons will be managed separately from the recycle material collection containers. Those containers will be marked with words "Empty Container" and staged separately from the recycling collection containers until they have been inspected by a Hazardous Materials Inspector (HMI). Following inspection and acceptance they will be managed according to the HMI's guidance.

Any containers that hold an acutely hazardous substance will be regarded as and managed as a hazardous waste.

Non-Recyclable or Refuse Materials

All materials not identified as re-usable or recyclable will be considered refuse material. It will be the responsibility of each Altura Engineering and Design employee and contractor to dispose of any waste material appropriately in order to facilitate the recycling and disposal programs. Altura Engineering and Design management and supervisors will ensure that all procedures are followed. Failure to comply with the established program may result in disciplinary actions including possible termination of employment and/or service contracts.

Personal trash such as papers, food containers, beverage cups, etc., will be bagged, removed from the work site, and properly disposed of by each employee and subcontractor.

Personal Protective Equipment (PPE)

The purpose of this program is to protect our employees by ensuring that personal protective equipment (PPE) is provided, used, and maintained in a sanitary and reliable condition whenever it is necessary due to hazards from processes in the work environment. To the extent that it is possible and feasible, Altura Engineering and Design will remove or eliminate hazards or exposures through engineering means to eliminate the need for PPE.

This program covers eye and face protection, head protection, foot protection, hand protection, and electrical protection. Respiratory hazards and hearing hazards are covered by other programs, but they will also be included in the Hazard Assessment described below. This program covers the responsibilities of managers, supervisors, and workers; assessment of hazards; selection and use of PPE; and training.

Altura Engineering and Design is dedicated to providing a safe and healthy workplace. All employees are expected to do their part to achieve this goal. Employees can do their part by using the proper PPE provided to them.

PPE will be made available or provided and will be used and maintained in a sanitary and reliable condition wherever it is necessary to prevent injury. PPE requirements include, but are not necessarily limited to, gloves, safety glasses, and fall arrest systems.

Replacement PPE

Altura Engineering and Design will provide and pay for replacement PPE when the original PPE wears out from normal wear and tear, or in the event of first-time loss or accidental damage by the employee. However, if an employee regularly and with unreasonable frequency loses, misuses, or damages the PPE, Altura Engineering and Design will require that the employee pay for the replacement cost of PPE.

Responsibilities

The Safety Coordinator will be responsible for assessing the hazards and exposures that may require the use of PPE, and determining the type of equipment to be provided. Input from managers, supervisors, and employees will be obtained and considered in selecting appropriate equipment.

Managers and supervisors will be responsible for training employees in the use and proper care of PPE, ensuring that all employees are assigned appropriate PPE, and ensuring that PPE is worn by employees when and where it is required. Employees are responsible for following all provisions of this program and related procedures.

Hazard Assessment

Altura Engineering and Design will perform an assessment of the workplace to determine if hazards are present or likely to be present which necessitate the use of PPE. This assessment will consist of a survey of the workplace to identify sources of hazards to workers. Consideration will be given to hazards such as impact, penetration, laceration, compression (dropping heavy objects on foot, roll-over, etc.), chemical exposures, harmful dust, heat, light (optical) radiation, electrical hazards, or noise. Where such hazards are present or likely to be present, Altura Engineering and Design will:

- Select and have each affected employee use the types of PPE that will protect the employee from the hazards identified in the Hazard Assessment;
- Communicate equipment selection decisions to each affected employee;
- Select PPE that properly fits each affected employee; and

Personal Protective Equipment (PPE)

- Train employees in the use and care of PPE as described elsewhere in this program.

Altura Engineering and Design will verify that the workplace hazard assessment has been performed by conducting a written certification. This certification will be dated and signed by the Safety Coordinator or person conducting the assessment. Whenever there is a change in process or in the workplace that might introduce or change an exposure or hazard, Altura Engineering and Design will perform an assessment to determine if there needs to be additional PPE or a change in the PPE provided. These supplemental hazard assessments will also be documented, signed, and dated by the person performing the assessment. Altura Engineering and Design will review and update the workplace Hazard Assessment if above mentioned applies.

Selection of Personal Protective Equipment

PPE will be selected on the basis of the hazards to which the workers are exposed or potentially exposed. All selections will be made with input from managers, supervisors, and workers.

PPE will meet the following standards:

- Eye & Face Protection devices - ANSI Z87.1-1989 "American National Standard Practice for Occupational and Educational Eye and Face Protection"
- Head Protection devices - ANSI Z89.1-1986 "American National Standard for Personal Protection - Protective Headwear for Industrial Workers"
- Foot Protection devices - ANSI Z41-1991 "American National Standard for Personal Protection - Protective Footwear"
- Hand Protection - No national standard available - Selection will be based on task performed, conditions present, duration of use, and the hazards and potential hazards identified.
- Electrical Protective equipment - No national standard - Equipment will be tested electrically before first use and every 6 months thereafter or upon indication that insulating value is suspect.

Training

Each employee who is required to use PPE will be trained on:

- Why PPE is necessary;
- When PPE is necessary;
- What PPE is necessary and any available alternative choices of equipment;
- How to properly don, doff, adjust, and wear PPE; and
- The proper care, maintenance, storage, useful life, and disposal of PPE.

The training will include an opportunity for employees to handle the PPE and to demonstrate they understand the training and have the ability to use the PPE properly. Training will be provided by the manager or supervisor of the affected employees. Training will be documented in writing with the names of each employee trained, the date(s) of the training, and the subject matter covered.

If an employee who has been trained demonstrates a lack of knowledge or behavior which leads the supervisor to believe the employee does not have a proper understanding of the PPE involved, that employee will be retrained. If changes in the workplace or processes occur that change the exposures or type of PPE to be used, all affected employees will be retrained.

Personal Protective Equipment (PPE)

Care of Personal Protective Equipment

Whenever practical, PPE will be assigned to individual workers for their exclusive use. Employees will be responsible for any loss of PPE equipment assigned to them or used by them.

PPE will be regularly cleaned, inspected, and stored according to instructions given during the training sessions or as directed by supervisors or managers. Defective or damaged PPE will not be used. Employees should report any defective or damaged equipment to their supervisor for repair or replacement.

Equipment Specifications and Requirements

All personal protective clothing and equipment will be of safe design and construction for the work to be performed. Only those items of protective clothing and equipment that meet National Institute of Occupational Safety and Health (NIOSH) or American National Standards Institute (ANSI) standards will be procured or accepted for use.

Eye and Face Protection

The majority of occupational eye injuries can be prevented by the use of suitable and approved safety spectacles, goggles, or shields. Approved eye and face protection will be worn when there is a reasonable possibility of personal injury. Supervisors, with assistance from the Safety Coordinator, determine jobs and work areas that require eye protection and the type of eye and face protection that will be used.

Other eye protection is required under certain conditions and in some locations, as shown below:

ACTIVITY	REQUIRED EYE AND FACE PROTECTION
Activities that create flying particles: <ul style="list-style-type: none">• Grinding• Hammering• Wire brushing• Cutting• Compressed air cleaning• Spraying• Using power tools• Using pneumatic tools• Blasting• Sanding• Chipping• Machining• Chiseling• Scraping• Buffing• Sawing	Impact-type goggles or safety glasses with side shields Note: A face shield must also be worn if a face hazard exists.
<ul style="list-style-type: none">• Handling hazardous liquids, powders, chemicals or vapors• Presence in the immediate vicinity where these materials are being handled, or• Where an eye/face hazard exists while venting natural gas.	Splash-proof goggles and face shield Reference: for more information, always refer to the SDS for the material involved
Inspecting and lighting fire boxes manually	Safety goggles and face shield
Inspecting equipment, tubing or piping while they are under hydraulic pressure or air pressure	Safety goggles
Working near other persons who are doing work that requires safety goggles	Safety goggles

Prevention of eye accidents requires that all persons who may be in eye hazard areas wear protective eyewear. This includes employees, visitors, researchers, contractors, or others passing through an identified eye hazardous area. To provide protection for these personnel, areas will procure a sufficient quantity of heavy-duty goggles and plastic eye protectors which afford the maximum amount of protection possible.

An employee wearing personal/prescribed glasses does not constitute that they are wearing the required PPE.

Personal Protective Equipment (PPE)

Specifications

Eye and face protectors procured, issued to, and used by Altura Engineering and Design personnel must conform to the following design and standards:

- They must provide adequate protection against the particular hazards for which they are designed.
- They must fit properly and offer the least possible resistance to movement and cause minimal discomfort while in use.
- They must be durable.
- They must be easily cleaned or disinfected for or by the wearer.
- They must be clearly marked to identify the manufacturer.
- Persons who require corrective lenses for normal vision and who are required to wear eye protection must wear goggles or spectacles of one of the following types:
 - Spectacles with protective lenses which provide optical correction;
 - Goggles that can be worn over spectacles without disturbing the adjustment of the spectacles; or
 - Goggles that incorporate corrective lenses mounted behind the protective lenses.

Description and Use of Eye or Face Protectors

Protective eye glasses are made with safety frames, tempered glass or plastic lenses, and temple and side shields which provide eye protection from moderate impact and particles encountered in job tasks such as carpentry, woodworking, grinding, or scaling.

Vinyl framed goggles of soft pliable body design provide adequate eye protection from many hazards. These goggles are available with clear or tinted lenses, perforated, port vented, or non-vented frames.

Single lens goggles provide similar protection to spectacles and may be worn in combination with spectacles or corrective lenses to ensure protection along with proper vision.

Chippers/grinders goggles provide eye protection from flying particles. The dual protective eyecups house impact resistant clear lenses with individual cover plates. These goggles are available in rigid and soft frames to accommodate single or two eyepiece lenses.

Face shields normally consist of an adjustable headgear and face shield of tinted or transparent acetate or polycarbonate materials or wire screen. Face shields are available in various sizes, tensile strength, impact and heat resistance and light ray filtering capacity. Face shields will be used in operations when the entire face needs protection and should be worn to protect eyes and face against flying particles, metal sparks, and chemical/biological splash.

The Safety Coordinator maintains a supply of various eye and face protective devices. Personnel requiring prescription safety glasses must contact the Safety Coordinator. As currently mandated by law, the employer must pay for PPE that is required by OSHA standards with the exception of non-specialty prescription eyewear and non-specialty safety-toe protective footwear (including steel-toe shoes or steel-toe boots).

Emergency Eyewash Facilities

Emergency eyewash facilities meeting the requirements of ANSI Z358.1-1981 will be provided in all areas where the eyes of any employee may be exposed to corrosive materials. All such emergency facilities will be located where they are easily accessible to those in need.

Hearing Protection

Hearing protection devices are the first line of defense against noise in environments where engineering controls have not reduced employee exposure to safe levels. Hearing protective devices can prevent significant hearing loss but only if they are used properly.

The most popular hearing protection devices are earplugs which are inserted into the ear canal to provide a seal against the canal walls. Earmuffs enclose the entire external ears inside rigid cups. The inside of the muff cup is lined with acoustic foam, and the perimeter of the cup is fitted with a cushion that seals against the head around the ear by the force of the headband.

Pre-formed earplugs and earmuffs should be washed periodically and stored in a clean area, and foam inserts should be discarded after each use. It is important for employees to wash their hands before handling pre-formed earplugs and foam inserts to prevent contaminants from being placed in the ear which may increase the risk of developing infections.

Also, check hearing protective devices for signs of wear or deterioration, and replace devices periodically. The Safety Coordinator maintains a supply of a variety of disposable foam ear inserts and earmuffs.

Respiratory Protection

Respiratory hazards may occur through exposure to harmful dusts, fogs, fumes, mists, gases, smoke, sprays, and vapors. The best means of protecting personnel is through the use of engineering controls, such as local exhaust ventilation. **Only when engineering controls are not practical or applicable will respiratory protective equipment be employed to reduce personnel exposure.**

The Safety Coordinator is responsible for the respiratory protection program at Altura Engineering and Design. Workers requiring the use of respirators **must first obtain medical approval** (which will consist of a Pulmonary Function test) from Altura Engineering and Design physician to wear a respirator before a respirator can be issued. The Safety Coordinator conducts respirator training and fit tests and is responsible for determining the proper type of respiratory protection required for the particular hazard.

Adherence to the following guidelines will help ensure the proper and safe use of respiratory equipment:

- Wear only the respirator you have been instructed to use. For example, do not wear a self-containing breathing apparatus if you have been assigned and fitted for a half-mask respirator.
- Wear the correct respirator for the particular hazard. For example, some situations such as chemical spills or other emergencies may require a higher level of protection than your respirator can handle. Also, the proper cartridge must be matched to the hazard; a cartridge designed for dusts and mists will not provide protection from vapors.
- Check the respirator for a good fit before each use. Positive and negative fit checks should be conducted.
- Check the respirator for deterioration before and after use. Do not use a defective respirator.
- Recognize indications that cartridges and canisters are at their end of service. If in doubt, change cartridges and canisters before using the respirator.
- Practice moving and working while wearing the respirator so that you can get used to it.
- Clean the respirator after each use; thoroughly dry it and place the cleaned respirator in a sealable plastic bag.
- Store respirators carefully in a protected location away from excessive heat, light, and chemicals.

Personal Protective Equipment (PPE)

Head Protection

Hats and caps have been designed and manufactured to provide workers protection from impact, heat, electrical, and fire hazards. These protectors consist of the shell and the suspension combined as a protective system. Safety hats and caps will be designed of nonconductive fire- and water-resistant materials. Bump caps or skull guards are constructed of lightweight materials and are designed to provide minimal protection against hazards when working in congested areas.

Head protection will be available upon request for employees in head-hazard areas, if required by the Safety Coordinator. Bump caps or skull guards will be issued to and worn for protection against scalp lacerations from contact with sharp objects. They will not be worn as substitutes for safety caps or hats because they do not afford protection from high impact forces or penetration by falling objects.

Hand Protection

Skin contact is a potential source of exposure to toxic materials; it is important that the proper steps be taken to prevent such contact. Gloves should be selected on the basis of the material being handled, the particular hazard involved, and their suitability for the operation being conducted. One type of glove will not work in all situations.

Most accidents involving hands and arms can be classified under four main hazard categories: chemicals, abrasions, cutting, and heat. There are gloves available that can protect workers from any of these individual hazards or any combination thereof.

The first consideration in the selection of gloves for use against chemicals is to determine, if possible, the exact nature of the substances to be encountered. Read instructions and warnings on chemical container labels and SDSs before working with any chemical. Recommended glove types are often listed in the section for PPE.

All glove materials are eventually permeated by chemicals. However, they can be used safely for limited time periods if specific use and glove characteristics (i.e., thickness and permeation rate and time) are known. The Safety Coordinator can assist in determining the specific type of glove material that should be worn for a particular chemical.

Gloves should be replaced periodically depending on frequency of use and permeability to the substance(s) handled. Gloves overtly contaminated should be rinsed and then carefully removed after use.

Gloves should also be worn whenever it is necessary to handle rough or sharp-edged objects and very hot or very cold materials. The types of glove materials to be used in these situations include leather, welder's gloves, aluminum-backed gloves, and other types of insulated glove materials.

Careful attention must be given to protecting your hands when working with tools and machinery. Power tools and machinery must have guards installed or incorporated into their design that prevent the hands from contacting the point of operation, power train, or other moving parts. To protect the hands from injury due to contact with moving parts, it is important to:

- Ensure that guards are always in place and used;
- Always lockout machines or tools and disconnect the power before making repairs;
- Treat a machine without a guard as inoperative; and
- **Not to wear gloves around moving machinery such as drill presses, mills, lathes, and grinders.**

Personal Protective Equipment (PPE)

The Safety Coordinator can help the supervisor identify appropriate glove selections for their operations. The Safety Coordinator also maintains a selection of gloves for various tasks.

Personal Protective Equipment (PPE)

Safety Shoes

Safety shoes will be worn in the shops, warehouses, maintenance, and other areas as determined by the Safety Coordinator. Recommendations for safety footwear will be approved by the Safety Coordinator. All safety footwear will comply with American National Standards Institute (ANSI).¹

Supervisors will review employees' work situations and recommend safety footwear as appropriate in accordance with established institute policy. New mandates stipulate that the employer must pay for PPE that is required by OSHA standards with the exception of non-specialty safety-toe protective footwear (including steel-toe shoes or steel-toe boots).

Employees must wear institute provided or approved safety shoes in all areas requiring safety footwear as determined by the supervisor and the Safety Coordinator.

The user will be responsible for the proper cleaning, maintenance, and use of the safety shoes.

¹ Standard ANSI Z41-1991, "American National Standard for Personal Protection - Protective Footwear. Protective footwear purchased before July 5, 1994, will comply with ANSI Standard Z41.1-1967.

Hearing Conservation Program

Evidence is well established that worker exposure to noise of sufficient intensity and duration can result in hearing damage. Noise-induced hearing loss rarely results from just one exposure; it can progress unnoticed over a period of years. Initial noise-induced hearing loss occurs at the higher frequencies where the consonant portion of speech is found, making communications difficult.

Engineering controls such as mufflers on heavy equipment exhausts or on-air release valves are required where possible. If engineering solutions cannot reduce the noise, administrative controls such as increasing the distance between the noise source and the worker or rotation of jobs between workers in the high noise area should be used if possible.

Noise exposure is often not constant and is difficult to control with either engineering or administrative solutions. Hearing protection is often the only choice available.

Employees will be given the opportunity to select hearing protective devices from a variety of suitable ones provided by the Safety Coordinator. In all cases the chosen hearing protectors will have a Noise Reduction Ratio (NRR) high enough to reduce the noise at the eardrum to 85 dB(A) or lower.

Annual audiometric testing will be provided by Altura Engineering and Design's physician to all employees with exposure to noise levels of 85 dB(A) or greater based on an 8-hour TWA (Time Weighted Average).

Area noise monitoring will be conducted by the Safety Coordinator at least every two years or upon process changes using a sound level meter to determine the need for personnel monitoring or engineering controls. If any work areas register TWA levels of 85 dB(A) or greater, personnel monitoring will be conducted. Personnel monitoring is accomplished by using noise dosimeters that are worn by employees for their full work shifts. The cumulative noise dose for the employees is then read at the end of their work shifts.

It is the policy of Altura Engineering and Design to provide employees with a safe and healthful working environment as described in OSHA regulation 29 CFR Part 1910.95. This is accomplished by utilizing facilities and equipment that have all feasible safeguards incorporated into their design. When effective engineering controls are not feasible or when they are being initiated, administrative controls will be used when and where possible followed by the use of personal protective equipment.

The primary goal of Altura Engineering and Design's hearing conservation program is to reduce and eventually eliminate hearing loss due to workplace noise exposures. The program includes the following elements:

- Work environments will be surveyed to identify potentially hazardous noise levels and personnel at risk.
- Environments that contain or equipment that produces potentially hazardous noise should, wherever it is technologically and economically feasible, be modified to reduce the noise level to acceptable levels.
- Where engineering controls are not feasible, administrative controls or the use of hearing protective devices will be employed.
- Periodic hearing testing will be conducted to monitor the effectiveness of the hearing conservation program. Early detection of temporary threshold shifts will allow further protective action to be taken before permanent hearing loss occurs.

- Education is vital to the overall success of a hearing conservation program. An understanding by employees of the permanent nature of noise-induced hearing loss, Altura Engineering and Design hearing conservation program and the employee's responsibilities under the program are all essential for program effectiveness.

Responsibilities

Safety Coordinator

The Safety Coordinator is responsible for developing, implementing, and administering Altura Engineering and Design' Hearing Conservation Program. Additional responsibilities include:

- Identification of work areas and equipment within company facilities where noise levels equal or exceed 85 dB(A).
- Identification through personnel monitoring of company employees whose noise exposure level equals or exceeds an 8-hour TWA (Time-Weighted Average) of 85 dB(A). Notification of employee exposure measurements is sent to the Safety Coordinator to be included in employees' medical files.
- Annual re-monitoring of identified at-risk employees.
- Resurvey of work areas and equipment where noise levels exceed 85 dB(A) every two years.
- Training of employees in the need for proper use and care of hearing protection devices.
- Identification of noise control measures (including engineering and administrative controls) and recommendations.

The Safety Coordinator is also responsible for coordinating and scheduling health and safety training courses and seminars. The Safety Coordinator also maintains documentation of the training courses presented in accordance with the Safety Program requirements.

Supervisors

It is the responsibility of supervisors to ensure that all employees exposed to noise levels equal to or greater than 85 dB(A) have access to appropriate hearing protective devices in the work area. Supervisors are also responsible for enforcing the use of hearing protective devices and engineering and administrative controls in designated noise hazardous areas.

Employees

Employees are responsible for wearing and maintaining hearing protective devices as instructed. Employees exposed to excessive levels of noise must also participate in annual training programs and the medical surveillance program, which includes audiometric testing.

Noise Evaluation and Surveillance Procedures

Identification of Hazardous Noise Areas

The Safety Coordinator will identify work areas within company facilities where noise levels equal or exceed 85 dB(A). Records will be maintained by the Safety Coordinator and updated at least every two years to determine if any alteration in noise levels has occurred. Those areas where the noise levels are below 85 dB(A) will not be routinely monitored. Identification of hazardous noise areas and equipment and any subsequent noise monitoring will be conducted by the Safety Coordinator.

Signs will be posted at the entrance to any work area where noise levels exceed 85 dB(A) requiring anyone entering the area to wear proper hearing protection. Personnel who work in these areas will have hearing protection supplied

Hearing Conservation Program

to them, will be instructed in its proper use, and be required to wear this equipment when in these identified areas. It is the responsibility of the area supervisor to ensure that these precautions are maintained.

Equipment which produces noise levels greater than 85 dB(A) or 130 dB peak sound pressure levels will also be appropriately labeled.

Noise Measurements and Exposure Assessments

In order to effectively control noise, it is necessary that the noise be accurately measured according to standard procedures and that the measurements are properly evaluated against accepted criteria. All noise monitoring will be conducted in accordance with established standard operating procedures.

The monitoring of employees for noise exposure is made up of two parts: area and personnel monitoring. Area measurements are generally obtained first. If noise levels are at or above 85 dB(A), personnel monitoring with dosimeters is then performed. Sample data sheets will be used to record monitoring data for both area and personnel noise monitoring results.

Area Measurements

In an area survey, measurements of environmental noise levels are recorded using a sound level meter to identify work areas where employees' exposures may be above hazardous levels and where more thorough exposure monitoring may be needed. Area monitoring is conducted using a calibrated sound level meter set to the A scale, slow response. Within the area of interest, several different locations will be measured. Typical measurement locations would include:

- In the hearing zone at the employee's normal work location.
- Next to the noise source(s).
- The entrance(s) to the work area.
- Other locations within the area where the employee might spend time working.

A rough sketch of the area will be included with the results showing the locations where the noise readings were obtained.

If the noise levels are below 85 dB(A) on a time-weighted average basis in the area, no further routine monitoring will be required for that area. Should any of the noise measurements equal or exceed 85 dB(A), records will be maintained as to the noise levels recorded, where they were taken, and the source(s) of the noise. These records will be updated at least once every two years to determine if any changes have occurred that would warrant re-monitoring of exposed personnel. If any of the measurements equal or exceed a noise level of 85 dB(A), employees who work in or near the high noise area or equipment will have their noise exposure determined through personnel monitoring using dosimeters.

Personnel Monitoring

Determination of the noise exposure level will be accomplished using calibrated noise dosimeters. Each employee to be monitored will have a dosimeter placed on them at the beginning of their normal work shift with the microphone placed in the "hearing zone". The dosimeter will be worn for the full duration of the work shift while the employee performs their normal work routine. At the end of the work shift, the dosimeter will be removed and the information printed out as soon as possible. Background information will be collected from each employee detailing the job description or unusual job activities for the time period sampled. That employee whose noise exposure equals or exceeds 85 dB(A) on an eight-hour TWA (time-weighted average) will be referred to the Safety Coordinator for inclusion in the Hearing Conservation Medical Surveillance Program.

Re-Monitoring of Hazardous Noise Areas

All areas where noise levels equal or exceed 85 dB(A) will be re-monitored at least every two years. Employees who work for extended periods of time (more than two hours) in the high noise areas and where their eight-hour TWA equals or exceeds 85 dB(A) will be monitored every year to determine their personal noise exposure.

Whenever an employee exhibits a standard threshold shift as determined by the Safety Coordinator, the employee's work place will be re-monitored to identify and ameliorate the cause.

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, Altura Engineering and Design will ensure that employees already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary. The employee shall be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if the employer suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

Re-Monitoring Due to Changes

Any area with noise levels that equal or exceed 85 dB(A) will also be re-monitored whenever a change in production process, equipment, or controls increase the noise exposure such that additional employees are exposed to noise levels at or above 85 dB(A) on a time-weighted average basis. Areas where the noise levels have dropped below 85 dB(A) due to alterations in equipment, controls, or process changes will be eliminated from the monitoring program.

Noise Control Methods

Engineering and Administrative Controls

The primary means of reducing or eliminating personnel exposure to hazardous noise is through the application of engineering controls. Engineering controls are defined as any modification or replacement of equipment or related physical change at the noise source or along the transmission path that reduces the noise level at the employee's ear. Engineering controls such as mufflers on heavy equipment exhausts or on-air release valves are required where possible.

Administrative controls are defined as changes in the work schedule or operations which reduce noise exposure. If engineering solutions cannot reduce the noise, administrative controls such as increasing the distance between the noise source and the worker or rotation of jobs between workers in the high noise area should be used if possible.

The use of engineering and administrative controls should reduce noise exposure to the point where the hazard to hearing is eliminated or at least more manageable.

Personal Protective Equipment

Hearing protective devices (ear plugs, muffs, etc.) will be the permanent solution only when engineering or administrative controls are considered to be infeasible or cost prohibited. Hearing protective devices are defined as any device that can be worn to reduce the level of sound entering the ear. Hearing protective devices will be worn by all personnel when they must enter or work in an area where the operations generate noise levels of greater than 85 dB(A) sound levels or 130 dB peak sound pressures level or greater.

Types of Hearing Protective Devices (HPDs)

Hearing protective devices include the following:

Insert-type earplugs are devices designed to provide an airtight seal with the ear canal. There are three types of insert earplugs: pre-molded, formable, and custom earplugs.

Pre-molded earplugs are pliable devices of fixed proportions. Two standard styles, single flange and triple flange, come in various sizes and will fit most people. Personnel responsible for fitting and dispensing earplugs will train

users on proper insertion, wear, and care. While pre-molded earplugs are reusable, they may deteriorate and should be replaced periodically.

Formable earplugs come in just one size. Some are made of material which, after being compressed and inserted, expands to form a seal in the ear canal. When properly inserted, they provide noise attenuation values that are similar to those from correctly fitted pre-molded earplugs. Individual units may procure approved formable earplugs.

Supervisors must instruct users in the proper use of these earplugs as part of the annual education program.

Each earplug must be held in place while it expands enough to remain firmly seated. A set of earplugs with a cord attached is available. These earplugs may be washed and therefore are reusable but will have to be replaced after two or three weeks or when they no longer form an airtight seal when properly inserted.

A small percentage of the population cannot be fitted with standard pre-molded or formable earplugs. Custom earplugs can be made to fit the exact size and shape of the individual's ear canal. Individuals needing custom earplugs will be referred to an audiologist.

Earmuffs are devices worn around the ear to reduce the level of noise that reaches the ear. Their effectiveness depends on an airtight seal between the cushion and the head.

Selection of Hearing Protective Devices

Employees will be given the opportunity to select HPDs from a variety of suitable ones provided by the Safety Coordinator. In all cases the chosen hearing protectors will have a Noise Reduction Ratio (NRR) high enough to reduce the noise at the eardrum to 85 dB(A) or lower.

Issuance of Hearing Protective Devices

The issuance of HPDs is handled through the Safety Coordinator. The Safety Coordinator will issue and fit the initial HPDs (foam inserts or disposables). Instruction on the proper use and care of earplugs and earmuffs will be provided whenever HPDs are dispensed. Personnel requiring earmuffs in addition to earplugs will be informed of this requirement and educated on the importance of using proper hearing protection. The Safety Coordinator will dispense earmuffs when necessary and will maintain a supply of disposable earplugs.

Use of Hearing Protective Devices

Always use and maintain HPDs as originally intended and in accordance with instructions provided. Earmuff performance may be degraded by anything that compromises the cushion-to-flesh seal. This includes other pieces of personal protective equipment such as eyewear, masks, face shields, and helmets.

Maintenance of Hearing Protective Devices

Reusable earplugs such as the triple flange or formable devices should be washed in lukewarm water using hand soap, rinsed in clean water, and dried thoroughly before use. Wet or damp earplugs should not be placed in their containers. Cleaning should be done as needed.

Earmuff cushions should be kept clean. The plastic or foam cushions may be cleaned in the same way as earplugs, but the inside of the muff should not get wet. When not in use, earmuffs should be placed in open air to allow moisture that may have been absorbed into the cups to evaporate.

Hearing Protection Performance Information

The maximum of sound attenuation one gets when wearing hearing protection devices is limited by human body and bone conduction mechanisms. Even though a particular device may provide outstanding values of noise

attenuation, the actual noise reductions may be less because of the noise surrounding the head and body bypasses the hearing protector and is transmitted through tissue and bone pathways to the inner ear.

The term “double hearing protection” is misleading. The attenuation provided from any combination earplug and earmuff is not equal to the sum of their individual attenuation values.

Medical Surveillance

Upon identification of employees whose 8-hour TWA equals or exceeds 85 dB(A), the Safety Coordinator will recommend to the employees’ supervisors, in writing, of the need to enroll certain employees in the Hearing Conservation Medical Surveillance Program. Information supplied to the Safety Coordinator will include the employees’ names, supervisors’ names, telephone numbers, and the noise levels recorded in the employees’ work areas including dosimetry data. It will be the responsibility of the supervisor to enroll their employee in the Hearing Conservation Medical Surveillance Program.

In work locations where either through administrative or engineering controls noise levels are found to have fallen such that the employee’s 8-hour TWA is below 85 dB(A), the Safety Coordinator will notify the employee’s supervisor by memo that the employees working in that area are no longer required to be enrolled in the Hearing Conservation Program. The final decision as to an employee’s enrollment status will be left with the company physician. The results of area and personal re-monitoring will be forwarded to the clinic upon completion of the noise surveys.

Any personnel experiencing difficulty in wearing assigned hearing protection (i.e., irritation of the canals or pain) will be advised to immediately report this to their supervisor and make arrangements to go to the company physician for evaluation as soon as possible.

Audiometric Testing

Altura Engineering and Design’s physician has the responsibility for administering the Audiometric Testing Program portion of the company Hearing Conservation Program. The object of the audiometric testing program is to identify workers who are beginning to lose their hearing and to intervene before the hearing loss becomes worse. Audiometric testing will be provided to all employees with exposure to noise levels of 85 dBA or greater. A baseline audiogram will be established for exposed employees within six (6) months of first exposure. Prior to the establishment of the baseline audiogram, employees will observe a period of at least fourteen (14) hours without exposure to workplace noise. Annual retesting will be performed for all personnel enrolled in the Hearing Conservation Medical Surveillance Program. If a standard threshold shift has occurred, the employee will be notified in writing within 21 days of determination.

Training

The training and education program will provide information about the adverse effects of noise and how to prevent noise-induced hearing loss. At a minimum, all training will cover:

- Noise-induced hearing loss.
- Recognizing hazardous noise.
- Symptoms of overexposure to hazardous noise.
- Hearing protection devices – advantages and limitations.
- Selection, fitting, use, and maintenance of Hearing Protection Devices (HPD's).
- Explanation of noise measurement procedures.
- Hearing conservation program requirements.

Employees will also be provided with copies of the OSHA noise standard (29 CFR 1910.95) and other handouts describing Altura Engineering and Design Hearing Conservation Program.

Altura Engineering and Design employees will be encouraged to use hearing protective devices when they are exposed to hazardous noise during activities at home (e.g., from lawn mowers, chain saws, etc.).

All personnel identified for inclusion in the hearing conservation program should receive a minimum of one hour of initial instruction in the requirements of the program. Ideally this will be done when hearing protection is dispensed.

Appropriate refresher training will occur annually thereafter and will be provided by the immediate supervisor or Safety Coordinator. Supervisors will be provided annual training by the Safety Coordinator.

Program Evaluation

Periodic program evaluations will be conducted to assess compliance with federal and state regulations and company program requirements. Both the monitoring and audiometric testing portions of Altura Engineering and Design Hearing Conservation Program will be reviewed annually to ensure its quality and effectiveness.

Hearing Conservation Program

An evaluation of the program including wearer acceptance, appraisal of protection afforded, and field audits of hearing protection use and record keeping will be conducted at least annually. Items to be considered include:

- Standard operating procedures;
- Training records and course content for supervisors and employees;
- Maintenance of HPDs;
- Field audits of HPD use;
- Review of recorded threshold shifts on OSHA logs.

The findings of Altura Engineering and Design Hearing Conservation Program evaluation will be documented, and this documentation will list plans to correct faults in the program and set target dates for the implementation of the plans.

Recordkeeping

All non-medical records (i.e., work area and equipment surveys) will be maintained for a period of five years. Results of hearing tests and medical evaluations performed for hearing conservation purposes as well as noise exposure documentation will be recorded and will be a permanent part of an employee's health record.

All personnel who routinely work in designated hazardous noise areas will be identified, and a current roster of such personnel will be maintained and by the Safety Coordinator and updated periodically.

Noise

Supervisors and exposed workers must become aware of and understand the adverse effects of noise and how to prevent noise-induced hearing loss. People exposed to hazardous noise must take positive action if progressive permanent hearing loss is to be prevented.

Noise exposure may result in permanent damage to the auditory system, and there is no medical or surgical treatment for this type of hearing loss. Though the use of a hearing aid may provide some benefit, normal hearing will not be restored. Many people do not realize loud sounds can cause hearing loss. Furthermore, in its initial stages, the person may not notice a problem since noise-induced hearing loss is invisible, painless, and occurs in the high frequencies. It is dangerous to ignore the temporary characteristics of noise-induced hearing loss (such as ringing or buzzing in the ears, excessive fatigue, etc.).

Each person should know how to recognize hazardous noise even if a noise survey has not been conducted or warning signs posted. Recognizing and understanding the adverse effects of off-duty noise exposures is also important. The best rule to follow is, "If you have to shout at arm's length (approximately three feet) to talk face-to-face, you are probably being exposed to hazardous levels of noise."

Preventing noise-induced hearing loss is accomplished by reducing both the time and intensity of exposure. Reducing exposure time is accomplished by avoiding any unnecessary exposure to loud sound. Reducing intensity is usually accomplished by wearing personal hearing protection. Each person must be able to properly wear and care for the particular type of hearing protection selected. Speech communication is difficult in high intensity noise. However, most people do not realize it is easier to understand speech if hearing protection is worn in a hazardous noise environment. Hearing protection reduces the noise and the level of speech, resulting in a more favorable listening level. Hearing protection reduces the intensity of frequencies above the speech range, thus reducing the

Hearing Conservation Program

noise and accentuating speech. People who claim wearing hearing protection makes it difficult to hear speech are probably in noise levels less than 85 dB(A) or have already developed a hearing loss.

Each person must know how to tell if they have been overexposed to loud sound. Overexposure may occur even while wearing hearing protection. Earplugs and/or earmuffs alone may not be enough protection. Each time a temporary threshold shift (TTS) occurs, a certain degree of permanent loss results. The recognizable symptoms of overexposure are described as dullness in hearing or ringing in the ears.

Respiratory Protection Program

All employees will be protected from exposure to airborne radioactive, chemical, or biological contamination by installing, implementing, or instituting feasible engineering or administrative controls. If these controls do not prove feasible, or while they are being installed/instituted, appropriate respiratory protection will be provided. For some experiments, respiratory protection may be provided as an additional safeguard against exposure.

It is Altura Engineering and Design' policy to provide employees with a safe and healthful working environment as described in OSHA regulation 29 CFR 1910.134. This is accomplished by utilizing facilities and equipment that have all feasible safeguards incorporated into their design. When effective engineering controls are not feasible, or when they are being initiated, protection will be used to ensure personnel protection.

Definitions

Respirator: A device provided to protect the wearer from inhalation of harmful or nuisance atmospheres. Respirators may function by air purifying and/or air supplying techniques.

Air Purifying Respirator: A device that filters and or absorbs contaminants from the ambient air being inhaled by the wearer.

Supplied Air Respirator (SAR): A device in which clean air is supplied to the face piece from an auxiliary source away from the wearer.

Self-Contained Breathing Apparatus (SCBA): A device in which the air supply is carried by the wearer.

Atmospheric Contamination: Gases such as nitrogen, carbon monoxide, and carbon dioxide; the vapors of volatile substances such as benzene and carbon tetrachloride; toxic dusts and fumes; radioactive materials and so forth.

Respirator Fit Test: A test used to determine a proper match or fit between the face piece of the respirator and face of the wearer.

Medical Evaluation/Questionnaire: A standard program used to determine if the employee is medically qualified to use a respirator by PHCP provider and/or Dr. Perales instructions.

Responsibilities

Supervisors will ensure each employee under their supervision using a respirator has received appropriate training in its use and has completed a medical evaluation prior to a fit test. Supervisors will ensure the availability of appropriate respirators and accessories, provide adequate storage facilities, and encourage proper respirator equipment maintenance. Supervisors must be aware of tasks requiring the use of respiratory protection at the facility and/or at a work site. Supervisors must ensure all employees engaged in such work use the appropriate respirators at all times.

Supervisors are responsible for ensuring that all employees who wear respiratory protective devices are thoroughly trained in their use; providing employees with the respiratory protection appropriate for the operation and ensuring the use of such devices; and identifying potentially hazardous conditions and immediately notifying the Safety Coordinator for corrective action.

Respiratory Protection Program

Supervisors will contact the Safety Coordinator prior to non-routine work which may expose workers to hazardous substances or oxygen deficient atmospheres. Examples of work which may require the use of respirators include, but are not limited to:

- Abrasive blasting;
- Cutting or melting lead or stripping lead-based paints from surfaces;
- Welding or burning;
- Painting, especially with epoxy or organic solvent coatings;
- Using solvents, thinners, or degreasers;
- Any work which generates large amounts of dust;
- Working in a confined space;
- Using formaldehyde to decontaminate a space;
- Bioaerosols.

Employees are responsible for:

- Using respiratory protective equipment as instructed and required under hazardous agent protocols.
- Storing respirators properly to prevent damage and inspecting them prior to each use.
- Reporting any malfunctions of respiratory protective equipment to the immediate supervisor.

Personnel such as employees, inspectors, and visitors who must enter an area where the use of respiratory protective equipment is required (even when their stay time in the area may be 15 minutes or less) will be provided with and will use appropriate equipment including instructions regarding use and limitations. Personnel will be fit-tested and medically qualified to wear the respirator being issued prior to entry to the site.

The Safety Coordinator is responsible for:

- Developing and implementing all aspects of the respiratory protection program.
- Developing training programs and standard operating procedures to fulfill the requirements of existing OSHA regulations and amendments.
- Purchasing, selecting, inspecting, maintaining, cleaning, storing, and fit-testing respiratory protective equipment.
- Periodically inspecting and replacing all respiratory protective devices stored for emergency use.

Contractors

Contractors are required to develop and implement a respiratory protection program for their employees who must enter into or work in areas where exposure to hazardous materials cannot be controlled or avoided. This program must meet OSHA regulations and include issuance of respirators, medical evaluations, fit testing and training. Contractors are responsible for providing their own respiratory protection programs and respiratory protective equipment.

Selection

Respiratory Protection Program

Respirators will be selected on the basis of the potential hazards to which the worker is exposed. The following factors will be ascertained by the Safety Coordinator to ensure that the device selected for the employee will provide satisfactory protection when used properly:

- Chemical, physical, and toxicological properties of the contaminant(s).
- Review of actual and potential hazards to assess the extent of injurious effects produced under all conditions of potential exposure.
- Evaluation of the duties to be performed by the wearer as they relate to restriction of movement and duration of potential exposure.
- An understanding of the principles, design, scope of use, limitations, advantages, and disadvantages of the available respirators. Respiratory equipment selected will be approved by Altura Engineering and Design or will otherwise be in accordance with existing OSHA regulations.
- The employer is required to identify hazards, select and provide respirators based on those hazards and factors affecting performance. Brands and models must be listed. If this is not done, then exposures must be addressed as immediately dangerous to life and health. (IDLH).

Medical Evaluations

The facility will designate the company physician for preliminary medical evaluation (MEQ) and a pulmonary function test, if requested to review the health status of all employees who may require respiratory equipment. Medical evaluations are provided at no cost to the affected employees. The employer is required to establish and retain written information regarding medical evaluations fit testing, where and by whom are the records are kept and the respirator program to comply with record keeping. Records of medical evaluations required by this section must be retained and made available in accordance with 29 CFR 1910.1020. Must be confidential, during normal working hours, convenient, understandable, employee given a chance to discuss results with PLHCP and must provide employees a right to access relevant exposure and medical records upon request.

Medical considerations include, but are not limited to the following:

- Asthma or emphysema;
- Difficulty breathing;
- Previously documented lung problems;
- High blood pressure;
- Artery diseases;
- Documented heart problems;
- Missing or arthritic fingers;
- Facial scars;
- Claustrophobia;
- Poor eyesight.

The medical evaluation form and questionnaire are located in the “Forms” section.

Fit Testing

A fit test will be used to determine the ability of each individual respirator wearer to obtain a satisfactory fit with any air-purifying respirator. The fit test will include a demonstration of proper donning, wearing, fit-testing techniques, a leak test using an irritant smoke and/or solution of isoamyl acetate as a test vapor. Any individual with facial hair

Respiratory Protection Program

that may prevent a proper face-to-face seal will not be fit tested until the hair has been removed. A separate Respirator Fitting and Training Record will be maintained for each participating individual. Either quantitative or qualitative fit tests will be performed. Personnel must successfully pass the fit test before being issued a respirator. No Altura Engineering and Design employee is permitted to wear a negative-pressure respirator in a work situation until they have demonstrated that an acceptable fit can be obtained. Respirator fitting is conducted initially upon assignment to a task requiring use of a respirator. Refitting is conducted annually thereafter upon successful completion of the respirator training.

Fit testing will be conducted by the Safety Coordinator, and/or PLHCP and the test results will be the determining factor in selecting the type, model, and size of respirator for use by each individual respirator user. To verify written program effectiveness, employees must be asked about fit, selection, use, maintenance.

Qualitative Fit Testing: Federal regulations (29 CFR 1910.1001) require qualitative fit tests of respirators and describe step-by-step procedures. This test checks the subject's response to a chemical introduced outside the respirator face piece. This response is either voluntary or involuntary depending on the chemical used. Several methods may be used. The two most common are the irritant smoke test and the odorous vapor test.

Irritant Smoke: The irritant smoke is an irritant to the eyes, skin, and mucous membranes. It should not be introduced directly onto the skin. The test subject must keep their eyes closed during the testing if a full-face piece mask is not used. The irritant smoke test is an involuntary response test. Air purifying respirators must be equipped with a high efficiency particulate air (HEPA) filter for this test. An irritant smoke, usually either stannic chloride or titanium tetrachloride, is directed from a smoke tube toward the respirator. If the test subject does not respond to the irritant smoke, a satisfactory fit is assumed to be achieved. Any response to the smoke indicates an unsatisfactory fit.

Odorous Vapor: The odorous vapor test is a voluntary response test. It relies on the subject's ability to detect an odorous chemical while wearing the respirator. Air purifying respirators must be equipped with an organic cartridge or canister for this test. Isoamyl acetate (banana oil) is the usual test. An isoamyl acetate-saturated gauze pad is placed near the face-to-face piece of the respirator of the test subject's skin. If the test subject is unable to smell the chemical, a satisfactory fit is assumed to be achieved. If the subject smells the chemical, the fit is unsatisfactory.

If the subject cannot smell the chemical, the respirator will be momentarily pulled away from the subject's face. If the subject is then able to smell the chemical, a satisfactory fit is assumed. If the subject cannot smell the chemical with the respirator pulled away from the face, this test is inappropriate for this subject and a different test will be used.

This test is limited by the wide variation of odor thresholds among individuals and the possibility of olfactory fatigue. Since it is a voluntary response test, results depend upon an honest response.

Seal Check

Each time a respirator is donned, the user will perform positive and negative pressure seal checks. These checks are not a substitute for fit testing. Respirator users must be properly trained in the performance of these checks and understand their limitations.

Negative Pressure Check: This test cannot be carried out on all respirators, however, it can be used on face pieces of air purifying respirators equipped with tight-fitting respirator inlet covers and on atmosphere supplying respirators equipped with breathing tubes which can be squeezed or blocked at the inlet to prevent the passage of air.

Respiratory Protection Program

Negative Pressure Check Procedure: Close off the inlet opening of the respirator's canister(s), cartridge(s), or filter(s) with the palm of the hand, or squeeze the breathing air tube or block its inlet so that it will not allow the passage of air. Inhale gently and hold for at least ten seconds. If the face piece collapses slightly and no inward leakage of air into the face piece is detected, it can be reasonably assumed that the respirator has been properly positioned and the exhalation valve and face piece are not leaking.

Positive Pressure Check: This test cannot be carried out on all respirators, however, respirators equipped with exhalation valves can be tested.

Positive Pressure Check Procedure: Close off the exhalation valve or the breathing tube with the palm of the hand. Exhale gently. If the respirator has been properly positioned, a slight positive pressure will build up inside the face piece without detection of any outward air leak between the sealing surface of the face piece and the face.

Special Problems

Facial Hair: No attempt is made to fit a respirator on an employee who has facial hair which comes between the sealing periphery of the face piece and the face or if facial hair interferes with normal functioning of the exhalation valve of the respirator.

Glasses and Eye/Face Protective Devices: Proper fitting of a respiratory protective device face piece for individuals wearing corrective eyeglasses or goggles may not be established if temple bars or straps extend through the sealing edge of the face piece. If eyeglasses, goggles, face shields, or welding helmets must be worn with a respirator, they must be worn so as not to adversely affect the seal of the face piece.

Training

Appropriate training and instructions in the proper use of each type of respirator will be provided by the Safety Coordinator. Respirator users and their supervisors will receive training on the contents of this Respiratory Protection Program and their responsibilities under it. They will be trained on the proper selection and use as well as the limitations of the respirator. Training also covers how to ensure a proper fit before use and how to determine when a respirator is no longer providing the protection intended.

The Safety Coordinator or their designee provides training to respirator wearers in the use, maintenance, capabilities, and limitations of respirators and is giving initially upon assignment of personnel to tasks requiring the use of respirators. Retraining is given annually thereafter and only upon successful completion of the medical evaluation.

Respirator training will be properly documented and will include the type and model of respirator for which the individual has been trained and fit-tested.

This training will include at least:

- The nature and degree of respiratory hazard;
- Respirator selection based on the hazard and respirator capabilities and limitations;
- Donning procedures and fit tests including hands-on practice to ensure an effective face piece-to-face seal;
- Actual handling of the respirator and wearing it for a period of time in a test atmosphere;
- A discussion of respirators construction, operating principles, and limitations;
- Care of the respirator;

Respiratory Protection Program

- Instruction on the nature of the hazard including information on its physical properties, possible concentrations, modes of physiological action, and means of detection;
- Use and limitations of respirators; and
- Discussions of maintenance and inspection procedures.

Inspection

For sanitary and health reasons, clean respirators will be used by one individual only and will be returned to the Safety Coordinator for cleaning, maintenance, and repairs. Cleaning and disinfecting of reusable components of a respirator unit will be performed by utilizing recognized procedures corresponding to the exposure atmosphere. Disposable respirators will be discarded properly after use by the individual. Inspection frequency for all unused devices will be monthly. Units receiving routine use will be inspected by the employee before and after each use. The inspection will include the following checks when applicable:

- Tightness of connections
- Condition of face piece, headbands, exhalation and inhalation valves, connecting tube, and canister
- Pressure in cylinders (do not use if less than 1500 psi)
- Deterioration of all rubber parts
- Regulator mechanism
- Lens of face pieces
- Warning alarm (self-contained units)
- Seal on cartridge package

Location and Storage of Respirators

Location and storage of all respiratory devices will be controlled by the Safety Coordinator. When the need for respiratory equipment is anticipated, approval by the Safety Coordinator should be obtained in advance.

After inspection, cleaning, and any necessary minor repairs, respirators should be stored to protect against sunlight, heat, extreme cold, excessive moisture, damaging chemicals, or other contaminants. Respirators placed at stations and work areas for emergency use will be stored in compartments built for that purpose, will be quickly accessible at all times, and will be clearly marked. Routinely used respirators, such as half-mask or full-face air-purifying respirators, will be placed in a sealable plastic bag. Respirators may be stored in such places as lockers or toolboxes only if they are first placed in carrying cases or cartons. Respirators will be packed or stored so that the face piece and exhalation valves will rest in a normal position and not be crushed. Emergency use respirators will be stored in a sturdy compartment that is quickly accessible and clearly marked.

Types of Respirators

Air-Purifying Respirators (APR)

Only NIOSH-certified air-purifying respirators are recommended for use. Air-purifying respirators remove air contaminants by filtering, absorbing, or chemically reacting with the contaminants as they pass through the respirator canister or cartridge. These respirators are to be used only where adequate oxygen (19.5 to 23.5 percent by volume) is available. Air-purifying respirators can be classified as the following:

- Particulate removing respirators filter out dusts;
- Fibers;
- Fumes; and
- Mists.

These respirators may be single-use disposable respirators or respirators with replaceable filters. Full face respirators are designed for eye and respiratory protection and should only be used in the affected areas specified

by PPE Assessment. NOTE: Surgical masks do not provide protection against air contaminants. They are never to be used in place of an air-purifying respirator. They are for medical use only.

Gas- and vapor-removing respirators remove specific individual contaminants or a combination of contaminants by absorption, or by chemical reaction. Gas masks and chemical-cartridge respirators are examples of gas- and vapor-removing respirators. Combination particulate / gas- and vapor-removing respirators combine the respirator characteristics of both kinds of air-purifying respirators.

Supplied-Air Respirators

Supplied-air respirators provide breathing air independent of the environment. Such respirators are to be used when the contaminant has insufficient odor, taste, or irritating warning properties or when the contaminant is of such high concentration or toxicity that an air-purifying respirator is inadequate. Supplied-air respirators, also called air-line respirators, are classified as follows:

Demand Respirators

Demand respirators supply air to the user on demand (inhalation) which creates a negative pressure within the face piece. Leakage into the face piece may occur if there is a poor seal between the respirator and the user's face.

Pressure Demand Respirators

Pressure demand respirators maintain a continuous positive pressure within the face piece, thus preventing leakage into the face piece.

Continuous Flow Respirators

Continuous flow respirators maintain a continuous flow of air through the face piece and prevent leakage into the face piece. When using an airlines respirator, leave the area immediately when the compressor failure alarm is activated or if an air pressure drop is sensed. When using an SCBA, leave the area as soon as the air pressure alarm is activated.

Self-Contained Breathing Apparatus (SCBA)

Self-contained breathing apparatus (SCBA) respirators allow the user complete independence from a fixed source of air and offer the greatest degree of protection but are also the most complex. Training and practice in their use and maintenance is essential. These types of devices will be used in emergency situations only. Air grade must be Grade D or better when using SCBA's. Compressor located in a clean atmosphere, with in-line purification and tagged to indicate date or change out. Carbon monoxide monitors in place and set to alarm at 10 PPM or monitored frequently.

Voluntary Use of Air-Purifying Respirators

Voluntary use is when an employee chooses to wear a respirator (e.g., for comfort), even though the use of a respirator is not required either by the employer or by an OSHA standard. Although, employees may be voluntarily using respirators, adverse health conditions may result from the wearing of a respirator itself. Altura Engineering and Design must ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user. The employer will provide the respirator users with the information contained in Appendix D of the OSHA standard, and found in the Forms section of this manual.

Filtering Face Piece Respirator (Dust Mask)

A filtering face piece respirator is a negative pressure particulate respirator with a filter as an integral part of the face piece or with the entire face piece composed of the filter medium. The employer may provide respirators at the request of employees or permit employees to use their own respirators, if the employer determines that such

Respiratory Protection Program

respirator use will not in itself create a hazard. Information for employees using respirators when not required under the standard.

- 129 -

Altura Engineering and Design
Reviewed: October 2024

Updated: October 2024

Revised: October 2024

Cloth Face Coverings

Face coverings are intended to prevent wearers who have Coronavirus Disease 2019 (COVID-19) without knowing it (i.e., those who are asymptomatic or pre-symptomatic) from spreading potentially infectious respiratory droplets to others. This is known as a source control which may be required by local, state, and/or federal entities. Altura Engineering and Design, as well as our customers, may also require that face coverings be worn by all workers while working at their facility.

Cloth face coverings are not considered personal protective equipment (PPE) and are not intended to be used when workers need PPE for protection against exposure to occupational hazards and cannot be used in place of respirators when respirators are otherwise required.

Altura Engineering and Design has the discretion to determine whether to allow employees to wear cloth face coverings in the workplace based on the specific circumstances present at the work site. For some workers, it may be determined that wearing cloth face coverings presents or exacerbates a hazard. For example, cloth face coverings could become contaminated with chemicals used in the work environment, causing workers to inhale the chemicals that collect on the face covering. Over the duration of a work shift, cloth face coverings might also become damp (from workers breathing) or collect infectious material from the work environment (e.g., droplets of other peoples' infectious respiratory secretions). Workers may also need to use PPE that is incompatible with the use of a cloth face covering (e.g., an N95 filtering facepiece respirator) are recommended.

Where cloth face coverings are not appropriate in the work environment or during certain job tasks (e.g., because they could become contaminated or exacerbate heat illness), Altura Engineering and Design will provide the appropriate PPE, such as face shields and/or surgical masks, instead of encouraging workers to wear cloth face coverings. Like cloth face coverings, surgical masks and face shields can help contain the wearer's potentially infectious respiratory droplets and can help limit spread of COVID-19 to others. When the work being performed requires respiratory protection for hazards other than COVID-19, employees will be provided with and should use the appropriate respiratory protection as stated in this policy.

Altura Engineering and Design, and its employees, will follow Center for Disease Control (CDC) guidance and recommendations in regards to face coverings and respiratory protection from COVID-19, including selection, use, and cleaning of face coverings not covered by the Respiratory Protection or PPE standards and company policies.

Identification of Respirator Cartridges and Gas Mask Canisters

Respirator cartridges and canisters are designed to protect against individual or a combination of potentially hazardous atmospheric contaminants and are specifically labeled and color coded to indicate the type and nature of protection they provide. An approved label on the respirator will also specify the maximum concentration of contaminant(s) for which the cartridge or canister is approved. For example, a label may read:

"DO NOT WEAR IN ATMOSPHERES IMMEDIATELY DANGEROUS TO LIFE. MUST BE USED IN AREAS CONTAINING AT LEAST 19.5 PERCENT OXYGEN. DO NOT WEAR IN ATMOSPHERES CONTAINING MORE THAN ONE-TENTH PERCENT ORGANIC VAPORS BY VOLUME. REFER TO COMPLETE LABEL ON RESPIRATOR OR CARTRIDGE CONTAINER FOR ASSEMBLY, MAINTENANCE, AND USE."

Warning Signs of Respirator Failure

Particulate Air-Purifying

Respiratory Protection Program

When breathing difficulty is encountered with a filter respirator (due to partial clogging with increased resistance), the filter(s) must be replaced. Disposable filter respirators must be discarded.

Gas or Vapor Air-Purifying

If, when using a gas or vapor respirator (chemical cartridge or canister), any of the warning properties (e.g., odor, taste, eye irritation, or respiratory irritation) occur, promptly leave the area and check for a proper face seal, damaged or missing respirator parts, or a saturated or inappropriate cartridge or canister. If no discrepancies are observed, replace the cartridge or canister. If any of the warning properties appear again, the concentration of the contaminants may have exceeded the cartridge or canister design specification. When this occurs, an airline respirator or SCBA is required.

Service Life of Air-Purifying Respirator Canisters and Cartridges

The canisters or cartridges of air-purifying respirators are intended to be used until filter resistance precludes further use or the chemical sorbent is expended as signified by a specific warning property, (i.e., odor, taste, etc.). New canisters, cartridges, or filters will always be provided when a respirator is reissued. When in doubt about the previous use of the respirator, obtain a replacement canister or cartridge.

Cartridge Change Out

Chemical cartridges are used on respirators to help remove and lower worker exposures to harmful gases and vapors in the workplace. Change schedule is a specified time period after which the chemical cartridge will be replaced. This time period may be established after consideration of the service life estimate, workplace conditions such as contaminant concentration, relative humidity, temperature, work activities, respirator use pattern (e.g., continuous or intermittent use), presence of other materials, potential for contaminant migration/desorption, health effects of the gas or vapor, and quality of warning properties, if any. Service life is the measured or estimated period of time before breakthrough of a contaminant (gas or vapor) for a specific chemical cartridge under specified conditions of the test or estimate. The safety coordinator will set up the cartridge change out schedule.

Maintenance of Respirators

The maintenance of respiratory protective devices involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to reissue. No respirator with a known defect is reissued for use. No attempt is made to replace components, make adjustments, or make repairs on any respirator beyond those recommended by the manufacturer. Furthermore, under no circumstances will parts be substituted as such substitutions will invalidate the approval of the respirator. Any repair to reducing or admission valves, regulators, or alarms will be conducted by either the manufacturer or a qualified trained technician.

Cleaning of Respirators

All respirators in routine use will be cleaned and sanitized on a periodic basis. Respirators used non-routinely will be cleaned and sanitized after each use and filters and cartridges replaced. Routinely used respirators are maintained individually by the respirator wearer. Replacement cartridges and filters are obtained by contacting the Safety Coordinator. Cleaning and disinfection of respirators must be done frequently to ensure that skin-penetrating and dermatitis-causing contaminants are removed from the respirator surface. Respirators maintained for emergency use or those used by more than one person must be cleaned after each use by the user.

The following procedure is recommended for cleaning and disinfecting respirators:

1. Remove and discard all used filters, cartridges, or canisters.
2. Wash face piece and breathing tube in a cleaner-disinfectant solution. A hand brush may be used to remove dirt. Solvents which can affect rubber and other parts will not be used.
3. Rinse completely in clean, warm water.
4. Air dry in a clean area in such a way as to prevent distortion.
5. Clean other respirator parts as recommended by the manufacturer.
6. Inspect valves, head straps, and other parts to ensure proper working condition.

7. Reassemble respirator and replace any defective parts.
8. Place in a clean, dry plastic bag or other suitable container for storage after each cleaning and disinfection.

Issuance of Respirators

Respiratory protective equipment will not be issued to personnel and/or new employees who require respiratory protection equipment unless the respirator wearer has received a medical clearance, respirator training, fit test, and must be placed into the respirator program before being issued equipment. Medical evaluation, fit test, respirators, and training are required to be provided free to the employees.

IDLH Atmospheres

Immediately dangerous to life or health (IDLH) means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere. Where the employee exposure cannot be identified or reasonably estimated, the atmosphere will be considered to be IDLH. Entry in to IDLH atmospheres will be prohibited, unless deemed necessary and unavoidable. Efforts must be made to remove the hazards of the IDLH atmosphere by use of ventilation or other appropriate means prior to entry. If entry in to the IDLH atmosphere is permitted, all necessary precautions must be taken, including but not limited to, the procedures outlined in the safety program such as the Lockout/Tagout and Permit Required Confined Space programs.

When entering an IDLH atmospheres, an entry program must be established that addresses outside standby persons (attendant), maintaining communication, proper training and equipment, notification procedures and necessary action. Mandatory equipment must include SCBA or SAR with auxiliary air supply and appropriate retrieval equipment or equivalent rescue means. Air purifying respirators must never be utilized when entering an IDLH atmosphere.

Pandemic and COVID-19 Respiratory Disease Prevention and Response Plan

Pandemic and COVID-19 Respiratory Disease Prevention and Response Plan

Purpose

Employees at an office or jobsite

In effort to reduce potential transmission of COVID-19 and in guidance with the Centers for Disease Control and Prevention (CDC), Altura personnel will until further notice adheres to the following:

Stay Home When Sick

Employees are to stay home when sick with cold or flu like symptoms or running a fever of 100.4°F or higher. Report illness to the Altura pandemic flu representative and Altura supervision. If employee is at work when illness symptoms manifest, contact the Altura pandemic flu representative immediately. Employees are to remain at home until at least 24 hours free of signs of fever without the use of fever-reducing or other symptom-altering medicines (e.g. cough suppressants).

The Altura pandemic flu representative will take temperature (orally) of employee prior to employee going home sick. Upon return to work of sick employee, the Altura pandemic flu representative will verify employee is free of fever prior to employee assuming normal work duties.

If an employee is known to have been potentially exposed to the COVID-19 virus or exposed through recent travel or friends and family, contact the Altura pandemic flu representative and Altura supervision immediately prior to returning to work. Work duties for the potentially exposed employee may be able to be performed remotely or with other provisions.

Altura pandemic flu representative will advise the client by email indicating number of Altura employees home sick with cold/flu like symptoms or fever. Information to HSE Manager should be simple, short and to the point (i.e. number of employees home sick with cold/flu like symptoms or fever).

Routine Environmental Cleaning

Cleaning personnel routinely clean office and cubicle areas for Altura employees and cleaning of frequently touched surfaces with disinfectant wipes which include but not limited to office door handles, filing cabinets, microwave, coffee dispensers, tables. Each employee will be responsible for cleaning/disinfecting their assigned keyboard, mouse, desk, chairs, etc. The Supplies personnel will be responsible for maintaining disinfectant wipes and hand sanitizer.

Respiratory Etiquette and Hand Hygiene

Washing hands is one of the most effective ways to prevent the spread of germs/viruses/bacteria and respiratory etiquette is important as a control measure from spreading infections.

- Clean hands frequently with the use of soap and water or alcohol-based hand sanitizer (60-95% alcohol) (after using the bathroom, before eating food, after blowing your nose/coughing/ sneezing, etc.)
- Wash hands with soap and water for at least 20 seconds
- Hand sanitizers will be placed in frequented cubicle areas and offices where employees are housed
- Avoid touching face, mouth and eyes with hands
- Cover mouth and nose with a tissue when coughing or sneezing and discard tissue directly after use
- Cough or sneeze into upper sleeve, not into your hands
- Avoid shaking hands

Restrict Travel

Business travel (i.e. > 100 miles one way) must be approved through Altura supervision. Travel should be limited to business critical. Most travel can be postponed or conducted remotely if needed to prevent the spread of COVID-19.

Pandemic and COVID-19 Respiratory Disease Prevention and Response Plan

Social Distancing

Employees are encouraged to limit meeting attendees to approximately 10 individuals. If 10 or more individuals are required for the meeting, consider holding the meeting in a room that has enough space for individuals to sit 6 feet apart or conduct the meeting outside.

Client Medical Unit

Client facility medical unit are for treating first-aid incidents, etc. and not to treat personal illness such as colds, flu or fever. Do not seek medical help for personal illness at the refineries' medical unit. However, do seek help for first aid incidents, etc. that may occur while performing work at a jobsite.

Amarillo Employees Traveling to a Jobsite

In order to reduce potential transmission of COVID-19, Amarillo Altura employees will until further notice implement the following:

Avoid Unnecessary Travel to a Jobsite

- Entry to the jobsite needs to have a business purpose and approved through Altura supervision prior to travel
- Pre-screening questionnaire may need to be filled out and submitted to the jobsite for new Altura employees prior to arriving at the refinery – Contact the Altura pandemic flu representative for pre-screen questionnaire requirements for our clients

Before Travelling to a Jobsite

- If employee is sick or running fever of 100.4°F or more, stay at home and do not travel to the jobsite
- Report illness to Altura supervision that prevents Amarillo employees from going to work
- If employee has been sick prior to coming to the jobsite, Altura personnel must be free of fever (< 100.4°F) and checked by Altura's pandemic flu representative (or designated alternate) prior to coming to the jobsite
- Communicate trips and time of arrival to Altura's Headcount Coordinator
- Reduce and/or eliminate contact with all jobsite personnel when unnecessary and by practicing social distancing (see Social Distancing section above)
- Use personal pen or pencil to sign-in at unit FICs/control rooms

While at a jobsite

- If an employee begins to feel sick while at a jobsite, employee shall contact Altura Management for further instructions

Educate Yourself

Use the websites below to educate yourself. Make sure to weed out facts from fiction so rumors are not spread which can add to public hysteria. False information can spread quickly from unreliable sites. Be aware of phishing scams and potential computer viruses with unknown links and websites.

<https://www.cdc.gov/>

<https://www.cdc.gov/coronavirus/2019-ncov/communication/factsheets.html>

<https://www.who.int/>

<https://connect.sp.phillips66.net/sites/hse/en-us/Pages/Virus-Prevention-Hub.aspx>

Contact Information

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 - (806) 870 0870 mobile
 - (806) 318 4076 (ext 100) office
- Jacob Moreno
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Pandemic and COVID-19 Respiratory Disease Prevention and Response Plan

- (806) 236 9515 mobile
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Altura Pandemic Flu Representative

- Kevin Farmer
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SYMPTOMS OF CORONAVIRUS DISEASE 2019

Patients with COVID-19 have experienced mild to severe respiratory illness.

Symptoms* can include

FEVER

COUGH

*Symptoms may appear 2-14 days after exposure.

SHORTNESS OF BREATH

Seek medical advice if you develop symptoms, and have been in close contact with a person known to have COVID-19 or if you live in or have recently been in an area with ongoing spread of COVID-19.



CS 315252-A March 16, 2020, 1:32PM

For more information: www.cdc.gov/COVID19-symptoms

SHARE FACTS ABOUT COVID-19

Know the facts about coronavirus disease 2019 (COVID-19) and help stop the spread of rumors.

**FACT
1**

Diseases can make anyone sick regardless of their race or ethnicity.

Fear and anxiety about COVID-19 can cause people to avoid or reject others even though they are not at risk for spreading the virus.

**FACT
2**

For most people, the immediate risk of becoming seriously ill from the virus that causes COVID-19 is thought to be low.

Older adults and people of any age who have serious underlying medical conditions may be at higher risk for more serious complications from COVID-19.

**FACT
3**

Someone who has completed quarantine or has been released from isolation does not pose a risk of infection to other people.

For up-to-date information, visit CDC's coronavirus disease 2019 web page.



CS315446-A 03/16/2020

**FACT
4**

There are simple things you can do to help keep yourself and others healthy.

- Wash your hands often with soap and water for at least 20 seconds, especially after blowing your nose, coughing, or sneezing; going to the bathroom; and before eating or preparing food.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Stay home when you are sick.
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

**FACT
5**

You can help stop COVID-19 by knowing the signs and symptoms:

- Fever
- Cough
- Shortness of breath

Seek medical advice if you

- Develop symptoms

AND

- Have been in close contact with a person known to have COVID-19 or if you live in or have recently been in an area with ongoing spread of COVID-19.

[cdc.gov/COVID-19](https://www.cdc.gov/COVID19)

What to do if you are sick with coronavirus disease 2019 (COVID-19)

If you are sick with COVID-19 or suspect you are infected with the virus that causes COVID-19, follow the steps below to help prevent the disease from spreading to people in your home and community.

Stay home except to get medical care

You should restrict activities outside your home, except for getting medical care. Do not go to work, school, or public areas. Avoid using public transportation, ride-sharing, or taxis.

Separate yourself from other people and animals in your home

People: As much as possible, you should stay in a specific room and away from other people in your home. Also, you should use a separate bathroom, if available.

Animals: Do not handle pets or other animals while sick. See [COVID-19 and Animals](#) for more information.

Call ahead before visiting your doctor

If you have a medical appointment, call the healthcare provider and tell them that you have or may have COVID-19. This will help the healthcare provider's office take steps to keep other people from getting infected or exposed.

Wear a facemask

You should wear a facemask when you are around other people (e.g., sharing a room or vehicle) or pets and before you enter a healthcare provider's office. If you are not able to wear a facemask (for example, because it causes trouble breathing), then people who live with you should not stay in the same room with you, or they should wear a facemask if they enter your room.

Cover your coughs and sneezes

Cover your mouth and nose with a tissue when you cough or sneeze. Throw used tissues in a lined trash can; immediately wash your hands with soap and water for at least 20 seconds or clean your hands with an alcohol-based hand sanitizer that contains at least 60–95% alcohol covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty.

Avoid sharing personal household items

You should not share dishes, drinking glasses, cups, eating utensils, towels, or bedding with other people or pets in your home. After using these items, they should be washed thoroughly with soap and water.



CS 314937-D 03/05/2020

Clean your hands often

Wash your hands often with soap and water for at least 20 seconds. If soap and water are not available, clean your hands with an alcohol-based hand sanitizer that contains at least 60% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty. Avoid touching your eyes, nose, and mouth with unwashed hands.

Clean all "high-touch" surfaces every day

High touch surfaces include counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables. Also, clean any surfaces that may have blood, stool, or body fluids on them. Use a household cleaning spray or wipe, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.

Monitor your symptoms

Seek prompt medical attention if your illness is worsening (e.g., difficulty breathing). **Before** seeking care, call your healthcare provider and tell them that you have, or are being evaluated for, COVID-19. Put on a facemask before you enter the facility. These steps will help the healthcare provider's office to keep other people in the office or waiting room from getting infected or exposed.

Ask your healthcare provider to call the local or state health department. Persons who are placed under active monitoring or facilitated self-monitoring should follow instructions provided by their local health department or occupational health professionals, as appropriate.

If you have a medical emergency and need to call 911, notify the dispatch personnel that you have, or are being evaluated for COVID-19. If possible, put on a facemask before emergency medical services arrive.

Discontinuing home isolation

Patients with confirmed COVID-19 should remain under home isolation precautions until the risk of secondary transmission to others is thought to be low. The decision to discontinue home isolation precautions should be made on a case-by-case basis, in consultation with healthcare providers and state and local health departments.

For more information: www.cdc.gov/COVID19

COVID-19 Additional Guidance (as 1-29-2021)

Pandemic and COVID-19 Respiratory Disease Prevention and Response Plan

The following guidance is provided by the CDC and OSHA as of February 4th, 2021. Due to the changing nature of the COVID-19 virus pandemic and the development new information and technologies, the information provided in the section may change as appropriate.

Hydrogen Sulfide (H₂S) Safety

Purpose

The purpose of this program is to reduce employee hydrogen sulfide (H₂S) exposure to below the Permissible Exposure Limits by means of engineering and work practice controls at Altura Engineering and Design. This program meets the requirements of OSHA Standard 29CFR 1910.1000 Table Z-2, ANSI/ASSE Z390.2-2017, accepted practices for Hydrogen Sulfide (H₂S) training program.

- Responsibilities

Managers and supervisors will:

- Know and understand the hazards of hydrogen sulfide exposure
- Comply with Altura Engineering and Design Confined Space Entry Program
- Comply with all engineering and work practice controls in place to prevent hydrogen sulfide exposure
- Ensure the availability and use of appropriate personal protective equipment for exposed employees

Employees will:

- Comply with all aspects of this hydrogen sulfide exposure control program
- Comply with Altura Engineering and Design Confined Space Entry Program
- Attend scheduled Hazard Communication Training and Confined Space Entry training
- Use engineering and work practice controls in place to prevent hydrogen sulfide exposure
- Use personal protective equipment as necessary to prevent hydrogen sulfide exposure
- Be aware of site specific contingency/emergency plans

Hazard Recognition

Altura Engineering and Design works to ensure that employees are not exposed to hydrogen sulfide above OSHA exposure limits at any time. Hydrogen sulfide, or H₂S, is a colorless, flammable gas that has a distinctive "rotten egg" odor. It is also referred to as dihydrogen sulfide, sulfur hydride, sewer gas, and stink damp. The physical characteristics of Hydrogen sulfide gas are as follows:

H ₂ S Characteristic	
Color	Colorless
Odor	"Rotten eggs" (detectable at 10 ppb)
Toxicity	Highly toxic
Flammability	Flammable
Solubility	0.4%
Incompatibilities	Strong oxidizers, strong nitric acid, metals

Hydrogen sulfide is produced naturally by decaying organic matter, released from liquid manure and natural gas, a byproduct of industrial processes including petroleum refining, mining, tanning, wood pulp processing, and used to produce elemental sulfur, sulfuric acid, and heavy water for nuclear reactors.

Hydrogen sulfide exposure could occur as a result of the following processes:

- Drilling operations
- Recycling drilling mud
- Contact with water from crude wells
- Blowouts
- Tank Gauging
- Routine maintenance at refining operations
- Confined Space Entry (refer to Altura Engineering and Design Confined Space Entry Program)

Exposure to hydrogen sulfide above published limits can result in adverse health effects including:

Hydrogen Sulfide (H₂S) Safety

- Eye irritation
- Lung effects
- Central Nervous System effects on parts of the brain that control breathing
- Shock, convulsions, and death at high exposures

Symptoms of hydrogen sulfide exposure include:

- Eye irritation
- Nose and throat irritation
- Headache, dizziness
- Nausea
- Cough, breathing difficulty

Monitoring

Monitoring for airborne concentrations of hydrogen sulfide at Altura Engineering and Design work sites is conducted using portable meters. All personnel working in areas where there is potential H₂S exposure will be provided personal monitors, and shall be trained on their use and care. When entering confined spaces, employees will follow the atmosphere monitoring procedures outlined in the Confined Space Entry Program. Personal monitors shall be set to alarm when the detected concentration H₂S reaches 10 ppm (parts per million).

Hazard Control

Altura Engineering and Design employees will not work in areas with airborne concentrations above OSHA Permissible Exposure Limits.

If circumstances require an exception to the above, NIOSH approved self-contained breathing apparatus or air-supplied respirators will be used.

In confined spaces, hydrogen sulfide hazards will be controlled in accordance with the Altura Engineering and Design Confined Space Entry program. Controls include but are not limited to dilution ventilation, forced air ventilation, and the use of NIOSH approved respiratory protection (SCBA and air supplied only).

Other safety precautions include:

- Whenever the four-gas monitor alarms leave the area immediately to a fresh air area, do not reenter until conditions are proven safe or appropriate respiratory protection is donned.
- Upon commencing operations at a work site, obtain, know, and understand the facility's contingency plan.

Personal Protective Equipment

Personal protective equipment is not a substitute for engineering controls or feasible work or administrative procedures. While these controls are being implemented – or if it has been determined that control methods are not feasible – PPE is required whenever there are hazards that can potentially provide bodily harm through absorption, inhalation, or physical contact. This equipment includes respiratory and hearing protective devices, special clothing, and protective devices for the eyes, face, head, and extremities. All PPE shall be of a safe design and constructed for the work to be performed, and maintained in a sanitary and reliable condition.

Training

Training should be documented and a H₂S certification card stating that the program conforms to ANSI/ASSE Z390.1 accepted practices for Hydrogen Sulfide (H₂S) training programs.

Training minimum content

- The hazards, characteristics and properties of H₂S and sulfur dioxide (SO₂)
- Sources of H₂S and SO₂
- Safe exposure limits for H₂S and SO₂ to include PEL and TLV
- Regulations pertinent to workers on H₂S jobsites
- Proper use of H₂S and SO₂ detection methods used at the workplace
- Recognition of, and proper response to, the warning signals initiated by H₂S and SO₂ detection systems in use at the workplace
- Symptoms of H₂S exposure; symptoms of SO₂ exposure
- Rescue techniques and first aid to victims of H₂S and SO₂ exposure
- Proper use and maintenance of respiratory protection equipment for working in H₂S and SO₂ atmospheres, usage instruction and hands-on practice, with demonstrated proficiency (29 CFR 1910.134)
- Workplace practices and relevant maintenance procedures that have been established to protect personnel from the hazards of H₂S and SO₂
- Wind direction awareness and routes of egress
- Enclosed facility entry procedures
- Emergency response procedures that have been developed for the facility or operations locations and use of safety equipment
- Locations of safe briefing areas
-

Altura Engineering employees will be trained for safe confined space entry according to the implemented Confined Space Entry Program.

Employer should be aware of the owner's contingency plan provisions and/or emergency plans at job site(s).

Recordkeeping

Training records included in this program are retained with and according to the requirements of the Altura Engineering and Design Hazard Communication Program.

Confined Space Entry training records are kept according to the Confined Space Entry Program.

Hydrogen sulfide monitoring results are documented and retained according to the Altura Engineering and Design Confined Space Entry Program.

Confined Space Policy

The OSHA standard on Permit-Required Confined Spaces (1910.146) requires employers to implement practices and procedures to protect employees from hazards associated with entry and work within permit required confined spaces.

Definitions

Confined Space: A confined space by design has limited or restricted means for entry and exit and is not intended for continuous employee occupancy. Confined spaces include but are not limited to utility access holes, boilers, pipelines, sewers, tunnels, silos, vaults, pits, tunnels, and vats.

Permit-Required Confined Space (PRCS): A confined space with one or more of the following characteristics:

- Contains or has a known potential to contain a hazardous atmosphere. Three of the most common atmospheric conditions that constitute hazards are oxygen deficiency, presence of combustible gases and vapors, and toxic gases and vapors.
- Contains a material with the potential for engulfment of an entrant.
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section.
- Contains any other recognized serious safety or health hazard.

Authorized Entrant: An employee who is authorized by the employee to enter a permit required space. Only employees who are trained as an entrant and have obtained a permit signed by the entry supervisor may enter a permit required confined space.

Attendant: An individual who is stationed outside one or more permit required spaces that monitors authorized entrants. At least one individual must be stationed outside the permit required confined space.

Entry: Action by which a person passes through an opening into a permit-required confined space. Entry occurs as soon as any part of the body breaks the plane of an opening into the space.

Entry Permit: Document that is provided to allow and control entry into a permit space and that contains information specified in this program.

Entry Supervisor: The entry supervisor is the department head, supervisor, or supervisor responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry, for overseeing entry, and for terminating entry.

Hazardous Atmosphere: an atmosphere that may expose employees to the risk of death, incapacitation, and impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

(1) Flammable gas, vapor, or mist more than 10% of its lower flammable limit (LFL).

(2) Airborne combustible dust at a concentration that meets or exceeds its LFL.

NOTE: This concentration may be approximated as a condition in which the dust obscures vision at 5 feet or less.

(3) Atmospheric oxygen concentration below 19.5% or above 23.5%.

(4) Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in 1910 Subpart G, Occupational Health and Environmental Control, or in 1910 Subpart Z, Toxic and Hazardous Substances, and which could result in employee exposure more than its dose or permissible exposure limit.

NOTE: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects does not apply in determining permit space applicability.

(5) Any other atmospheric condition that is immediately dangerous to life or health.

NOTE: For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Safety Data Sheets that comply with the Hazard Communication Standard (1910.1200),

published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

Identification of PRCSs

Each affected area(s) is to identify all confined spaces and those suspected of being a PRCS. All facility confined spaces (whether they are created during the manufacturing process, or they permanently exist) must be evaluated as to whether they are permit-required. After identification, the affected area(s) should contact the Health and Safety Coordinator to assist in the evaluation of those spaces (e.g., vessels, tanks, etc.). The following is a list of permits required confined space(s) entry throughout Altura Engineering and Design:

- All tanks, vessels, silos, vaults, pits, etc. during fabrication when completed to the point where entry is through a utility access hole.
- All tanks, vessels, silos, vaults, pits, etc. when any cleaning, maintenance, inspections, or repairs are being made.
- When performing maintenance, inspection, or repairs or changing filters in baghouse.
- Sandblast or product collection pit(s).
- Sandblast or product hopper(s), if inside for maintenance, inspection, or cleaning.
- Nurse tanks.
- Sump pits.

Note: The above listed space are examples of spaces to be considered; all spaces should be evaluated to determine the applicability of the Confined Space Policy.

The practices and procedures to protect employees at Altura Engineering and Design from the hazards of entry into permit-required confined space entry will be covered in this program.

Warning Signs

PRCSs must be posted with warning signs notifying employees of any hazards that are present and that only authorized entrants may enter the PRCS. This can be accomplished by posting a sign that reads something like:



Evaluation of PRCS Conditions

Each PRCS must be evaluated to identify hazards; determine the severity the hazards; and establish control procedures and practices by which the space may be entered safely. A "Confined Space Hazard Evaluation" form must be completed for each PRCS. Employees, and/or their representative, shall be given an opportunity to participate in and review the calibrated air monitoring data before entry into the space, and are entitled to request additional monitoring at any time.

Before entry into a PRCS is authorized, the conditions within the space must be tested to determine if acceptable entry conditions exist. The space must be monitored during entry operations to determine if acceptable entry conditions are being maintained, including when continuous ventilation is utilized. When testing for atmospheric hazards first test for oxygen deficiency, then for combustible gases and vapors, and then for toxic gases and vapors.

Confined Space Policy

A common cause of injury and death in confined space accidents has been failure to test before entry and during work procedures for dangerous air contaminants and safe oxygen levels. Altura Engineering and Design utilizes Gas Alert Max and the Gas Alert Max XT Meters to test oxygen displacement and flammability inside the confined spaces that are to be entered. **Before any hot tank is brought into the building, it shall be tested outside for flammability inside the tank.** A hot tank is any tank that may be flammable. Test for oxygen and combustibility before you open the space by probing with the test instrument near the entry. Once the space is opened, test the air from top to bottom. Some gases like propane and butane are heavy and they will sink to the bottom of the space. Light gases such as methane will rise to the top. Remember to check all levels within the confined space. If the pretests of the confined space discover hazards that an employee cannot protect themselves against the permit will be canceled.

Follow-up testing may be periodic or continuous, depending on specific conditions. Because the work being done within a confined space may also change air quality, continuous testing may be needed to ensure worker safety. **Remember, if at any time during the entry, and if any of the atmospheric testing results are not within the approved exposure limits, the entrant will leave the space and the permit will be canceled.**

Altura Engineering and Design employees are prohibited to enter any confined spaces that are found to have conditions that are Immediately Dangerous to Life and Health (IDLH).

Review of PRCS Program

Entry operations are to be reviewed when there is reason to believe that the measures taken may not protect the employees and at least annually. The program is to be revised to correct any deficiencies found.

Confined Space Safety Plan

Each shop or work unit is to complete a Confined Space Safety Plan to:

- Identify confined spaces and permit required confined spaces.
- Describe procedures and practices necessary for safe permit space entry.
- Identify equipment that will be needed.
- Designate persons who are authorized as entrants, attendants, or supervisors; and
- Evaluate hazards of the confined space.

Entry into Non-Permit Confined Spaces

Precautions must be taken for entry into non-permit required spaces. The space atmosphere must be tested for oxygen concentration, combustible gas or vapor, and potential toxic contaminants. Any hazardous conditions detected must be reported to the supervisor and the Health and Safety Coordinator. Confined spaces with limited ventilation must be power ventilated with a blower (minimum capacity 750 cfm) operating at its maximum rated speed for a minimum of 5 minutes. Larger confined spaces (greater than 1000 cubic feet) must be ventilated for at least 10 minutes. The blower must be in continuous operation while anyone is in the confined spaces.

The Confined Space Entry Permit and Confined Space Pre-Entry Checklist are in APPENDIX A, pages 323 and 325.

Pre-Entry and Entry Practices & Procedures

Each department is to develop written entry procedures and practices necessary for safe permit space entry, to be included in the confined space safety plan. The Health and Safety must approve procedures prior to entry. Practices and procedures to be addressed include:

- Isolating (locking and tagging) the PRCS.
- Ventilation of the PRCS; (testing must be conducted before entry & during work)
 - Monitoring of the space must inform the entrants of potential hazards.
- Providing vehicle and pedestrian barriers to protect entrants from external hazards; and,
- Verifying those conditions are acceptable for entry.

Locking and Tagging

Confined Space Policy

No work is to be performed until appropriate locking, tagging and/or isolation is accomplished to prevent the inadvertent actuation of operations or processes associated with the space which might expose employees to hazardous conditions.

Required Equipment

The following is a list of the potential equipment needed for entry into permit-required confined spaces:

- Atmospheric monitoring equipment
- Ventilating equipment
- Communications equipment
- Personal protective equipment
- Lighting equipment (consider environment)
- Barriers and shields necessary to protect entrants
- Ladders
- Rescue equipment
- Other equipment necessary for safe entry

Permit System

Before entering a PRCS an authorized employee must complete a "Confined Space Entry Permit" for approval by the entry supervisor. A copy must also be sent to the Health and Safety Coordinator. The permit must include: identity of the space; purpose of entry; date and duration of entry; eligible attendants and individuals to be in charge of entry; hazards of the PRCS; measures for isolation of the space; measures to control potential hazards; the acceptable entry conditions; testing and monitoring equipment and procedures; rescue services in the event of an emergency; rescue equipment to be provided on-site, if necessary; communication procedures between authorized entrants and attendants; and personal protective equipment.

Reclassifying a Permit-Required Confined Space to a Non-Permit Confined Space

If all the hazards that make a confined space permit-required are eliminated, the space can be reclassified as a non-permit confined space given that the hazards remain eliminated. ***Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards.***

If a reclassification occurs, the basis for this determination must be documented where the date, location of the space, and the name and signature of the person making the determination are listed.

If the declassified permit space has hazards arise that could make it permit-required once again, all personnel will exit the space and the space will be re-evaluated and reclassified as a permit space if necessary.

Rescue and Emergency Service

Non-entry rescue is performed typically by the attendant where the entrant can be pulled to safety without the need for entry into the permit space. This would occur in a situation where the entrant has become incapacitated and cannot rescue themselves.

Entry Rescue

Company personnel are prohibited from performing entry rescue into a permit-required space. A third-party rescue service provider will conduct entry rescue situations. The third-party rescue service provider must be evaluated and selected prior to use based on the following criteria:

- Ability to respond to a rescue in a timely manner.
- Ability to provide rescue services for the hazards associated with the rescue.

The third-party rescue team will need to be informed of the hazards when they are called. The third-party rescue team must be provided with access to the permit spaces to develop appropriate rescue and practice plans. In the event of any rescue, emergency medical services must be immediately notified. When an employee is being treated at a medical facility for an injury or a potential exposure, an SDS of the hazardous materials present as part of the permit space entry must be made readily available to the treating facility.

Training

Confined Space Policy

Personnel responsible for supervising, planning, entering, or participating in permit space entry must be trained in their duties prior to any permit space entry. Training will include:

- Explanation of the general hazards associated with confined spaces.
- Discussion of specific permit space hazards associated with the facility, location, or operation.
- Reason for, proper use, and limitations of equipment (i.e., atmospheric monitors, emergency retrieval systems, PPE) required for entry into the permit space.
- Explanation of permits and other procedural requirements for conducting a permit space entry.
- A clear understanding of what conditions would prohibit entry.
- Procedures for responding to emergencies.
- Duties and responsibilities of the permit space entry team (authorized entrant, attendant, and entry supervisor).
- Description of how to recognize symptoms of overexposure to probable atmospheric conditions and the method for alerting the attendant.

Refresher training will occur at least annually, and retraining will be required when:

- An employee's job duties change (regarding permit-required confined spaces).
- This program or procedures are changed.
- A new hazard arises that has not been previously addressed in a training session.
- There is an indication that the procedure is not being followed safely and/or when there are indications that employee practices or knowledge do not meet the requirements.

All required training will be documented at a minimum on a training roster where the employee's name and signature, topic covered, name of trainer and the trainer's signature, and date of training are documented.

All non-entry employees must receive basic awareness training regarding confined spaces as it relates to the dangers and entry restrictions. Periodic refresher training will occur via toolbox and/or during monthly safety meetings.

If more than one confined space is to be monitored by a single attendant, the attendant must respond to emergencies in one or more permit spaces that he/she is monitoring without distraction from all responsibilities. After entry operations have been completed, employee should close off a permit space and cancel permit. Training must also include procedures for coordinating entry operations for multi employers so that employees on one employer do not endanger the employees of any other employer.

Working with Contractors

Whenever contractors are to be engaged in activities covered by this program, the on-site employer must:

- Inform the contractor that permit space entry is allowed only through compliance with a permit space program that is at least equivalent to this permit space program.
- Notify the contractor of the hazards that make the space permit-required and any precautions for the protection of employees in or near permit spaces where contractor personnel will be working; and
- Discuss with the contractor, at the conclusion of the entry operations, any hazards confronted or created.

If company personnel are to enter a permit space simultaneously with a contractor, the contractor will be required to follow the company's Permit-Required Confined Space Programs entry procedures.

Responsibilities

Site Manager Responsibilities

Responsible for the site's implementation of the Permit-Required Confined Space Program.

Entry Supervisor Responsibilities

- Attend required training.
- Know the hazards that may be faced during entry, including information related to overexposure.

Confined Space Policy

- Verify that the permit has been properly completed, that all tests specified by the permit have been conducted, and that all procedures and equipment specified by the permit are in place before authorizing the permit and allowing entry to begin.
- Terminate the entry and cancels the permit when the task is complete, a condition arises that has not been addressed by the permit, or the entry procedure is not followed.
- Verify that rescue services are available and that the means for summoning them are operable.
- Remove unauthorized individuals who enter or who attempt to enter the permit space during entry operations.
- Ensure that the entry processes and procedures are followed throughout the entry operation.

Attendant Responsibilities

- Attend required training.
- Know the hazards that may be faced during entry, including information related to overexposure.
- Continuously maintain an accurate count of authorized entrants in the permit space.
- Remain outside the permit space during entry operations until relieved by another attendant.
- Maintain communication with authorized entrants to monitor their work activities and condition.
- Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space.
- Order the authorized entrants to evacuate when any condition exists that could harm the entrant.
- Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.
- Keep unauthorized persons from approaching or entering a permit space while entry is underway.
- Perform non-entry rescues as specified.
- Perform no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.

Authorized Entrant Responsibilities

- Attend required training.
- Know the hazards that may be faced during entry, including information related to overexposure.
- Safely use equipment that allows for a safe entry operation.
- Maintain communication with the attendant as necessary to enable the attendant to monitor entrant status and alert entrants of the need to evacuate the space necessary.
- Alert attendant whenever a potential overexposure has occurred, or any other hazard arises that was not addressed by the entry permit.
- Exit the permit space whenever the attendant or entry supervisor orders an evacuation, a potential overexposure has occurred, any other hazard arises that was not addressed by the entry permit, or when a general evacuation alarm is sounded.
- Ensure that the entry processes and procedures are followed throughout the entry operation.

Air Monitor Technician Responsibilities

- Calibrate and operate air monitoring equipment as recommended by the manufacturer recommendations.
- Understand when equipment is malfunctioning and performing maintenance as required.
- Document calibrations on a log that includes the monitor model/serial number, the date of calibration, and the name of the person performing the calibration.
- Understand the airborne hazards that exist or have the potential to exist and the methods of monitoring for those hazards in the space to be entered.
- Notifies the attendant and entry supervisor when the monitoring equipment is not functioning properly.

Non-Entry Employee Responsibilities

- Attend required training.
- Do not enter or attempt to enter any permit-required confined space.
- Follow all applicable procedures.

Contractor Responsibilities

- Follow company procedures regarding contractor personnel.

OSHA 300 Logs

The Occupational Safety and Health Administration require that all sites maintain a Bureau of Labor Statistics Log and Summary of Occupational Injuries and Illnesses (OSHA 300A). This form is to be maintained as a permanent record at Altura Engineering and Design.

Since the OSHA 300 form is a legal record of recordable injuries at a site, care must be taken to comply with the requirements which are outlined below:

- This log will be maintained as a permanent file for each facility.
- Each recordable case will be logged on a working copy of the OSHA 300 form within seven days of the incident. Any case which is questionable should be recorded and then lined out if it later proves to be a non-recordable injury or illness.
- A copy of all incident/accident reports will be kept with the working log as they are recorded.
- Documentation of all decisions regarding the recordability of an incident will be documented and kept in a separate file. Questions regarding whether an incident is recordable or not should be referred to the EH&S Coordinator.
- The OSHA 300A log (summary) will be posted at each facility from February 1st to April 30th and should be kept onsite for five years.

Definitions

Accident: An incident which results in personal injury, illness, or death.

Catastrophic Release: A major uncontrolled emission, fire or explosion involving one or more highly hazardous chemicals that presents serious danger to employees in the workplace.

Event: An undesired occurrence.

Illness: Occupational induced acute or chronic diseases which may be caused by inhalation, absorption, ingestion or direct contact. Examples of these illnesses are shown below: (*The number in parenthesis shows where this notation would be shown on the OSHA 300 form*)

- Skin diseases or disorders - such as dermatitis, eczema, rashes (2);
- Respiratory conditions due to toxic agents - such as congestion due to chemicals, dusts, gases or fumes (3);
- Poisoning - such as heavy metal poisoning, exposure to carbon monoxide, H2S, benzene or other chemicals (4);
- Repeated trauma - such as noise-induced hearing loss, bursitis, carpal tunnel syndrome (5);
- All other occupational illnesses - such as food poisoning, malignant and benign tumors, hepatitis (6).

Incident: An unplanned event that interrupts the completion of a planned activity and may include injury and/or property damage.

Injury: Any occupational injury such as a burn, cut, fracture, sprain, amputation, animal bite, or one-time exposures to chemicals.

Loss: A disruption of normal efficiency, loss of production or physical damage to property.

Lost Workdays: Either Days Away from Work or Days of Restricted Work Activity.

- Days Away from Work is any time an individual is unable to report to work on a given day due to an occupational accident or illness.
- Days of Restricted Work is any time an individual is unable to perform all duties which are normally assigned due to an occupational injury or illness and is then assigned to temporary duty or part time duty at his regular job.

Medical Treatment: Includes treatment (other than First Aid) administered by physician or registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid (one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters and so forth which do not ordinarily require medical care) even if the treatment was provided by a physician or registered professional.

Near Incident: An event where no damage or injury occurred, but there was a high probability for severe injury or damage.

OSHA 300 Log (Working Log): The log kept at each manned facility where all recordable and potentially recordable incidents are recorded.

OSHA 300A Log (Summary): The log generated by safety that will be posted at each manned facility no later than February 1 and kept posted until April 30 of each year.

OSHA Recordable: Any occupational accident or illness which requires medical treatment.

A work-related injury or illness is OSHA recordable if it meets one or more of the **6 general recording criteria**:

1. death;
2. days away from work;
3. restricted work or job transfer;
4. medical treatment beyond first aid;
5. loss of consciousness; or,
6. Diagnosis by a physician or other licensed health care professional as a significant injury or illness.

First Aid

First aid is defined using a finite list of treatments (these are not recordable):

- Using a non-prescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes);
- Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);
- Cleaning, flushing or soaking wounds on the surface of the skin;
- Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc., are considered medical treatment);
- Using hot or cold therapy;

- Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);
- Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.).
- Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
- Using eye patches;
- Removing foreign bodies from the eye using only irrigation or a cotton swab;
- Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs, or other simple means;
- Using finger guards;
- Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or
- Drinking fluids for relief of heat stress.

All other treatment is now considered medical treatment, and therefore OSHA recordable. Medical treatment does not include:

- Doctor visits & follow-up visits solely for observation or counseling;
- Diagnostic procedures such as X-rays, blood tests, or MRIs (including prescription medicine used for diagnostic purposes such as eye drops to dilate pupils).

Also, a case that involves a "**significant injury or illness**" diagnosed by a physician or other licensed health care professional" is recordable, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness. OSHA believes that work-related cancer, chronic irreversible diseases, fractured or cracked bones, and punctured eardrums are generally considered significant injuries and illnesses, and must be recorded at the initial diagnosis even if medical treatment or work restrictions are not recommended, or are postponed, in a particular case.

Musculoskeletal disorders (MSDs) are treated like all other injuries or illnesses: they must be recorded if they result in days away, restricted work, transfer to another job, or medical treatment beyond first aid.

Sites are required to record "**light duty**" or restricted work cases when the injured or ill employee only works partial days or is restricted from his or her "routine functions." Routine functions are defined as work activities the employee regularly performs at least once weekly.

Non-Recordable

First Aid cases are not OSHA recordable.

Documentation

DOCUMENT	WHERE KEPT	HOW LONG
Supervisor's Incident Investigation Report Form	Facility	5 years
OSHA 300 Log (Working Copy)	Facility	Month
OSHA 300A Log (Summary)	Facility	Posted 2/1 - 4/30, onsite for 5 years.
Employee Safety Incident Report Form	Facility	2 years
Incident Investigation Reports	Facility	5 years

OSHA published a Final Rule to amend its recordkeeping regulation.

To protect worker privacy, the Occupational Safety and Health Administration (OSHA) is amending the recordkeeping regulation by rescinding the requirement for establishments with 250 or more employees to electronically submit information from OSHA Forms 300 and 301. These establishments will continue to be required to maintain those records on-site, and OSHA will continue to obtain them as needed through inspections and enforcement actions.

In addition to reporting required after severe injuries, establishments will continue to submit information from their Form 300A. Such submissions provide OSHA with ample data that it will continue seeking to fully utilize.

In addition, OSHA is amending the recordkeeping regulation to require covered employers to submit their Employer Identification Number (EIN) electronically along with their injury and illness data submission, which will facilitate use of the data and may help reduce duplicative employer reporting. Nothing in the final rule revokes an employer's duty to maintain OSHA Forms 300 and 301 for OSHA inspection. These actions together will allow OSHA to improve enforcement targeting and compliance assistance, decrease burden on employers, and protect worker privacy and safety.

Beginning in 2019 and every year thereafter, covered establishments must submit the information by March 2.

This final rule became effective on February 25, 2019.

Reporting fatalities, hospitalizations, amputations, and losses of an eye as a result of work-related incidents to OSHA.

(1) Within eight (8) hours after the death of any employee as a result of a work-related incident, you must report the fatality to the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor.

(2) Within twenty-four (24) hours after the in-patient hospitalization of one or more employees or an employee's amputation or an employee's loss of an eye, as a result of a work-related incident, you must report the in-patient hospitalization, amputation, or loss of an eye to OSHA.

(3) You must report the fatality, in-patient hospitalization, amputation, or loss of an eye using one of the following methods:

- (i) By telephone or in person to the OSHA Area Office that is nearest to the site of the incident.
- (ii) By telephone to the OSHA toll-free central telephone number, 1-800-321-OSHA (1-800-321-6742).
- (iii) By electronic submission using the reporting application located on OSHA's public Web site at www.osha.gov.

OSHA 300 Log

OSHA's Form 300 (Rev. 01/2004)
Log of Work-Related Injuries and Illnesses

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR 1904.8 through 1904.12. Feed free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year _____
U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of the data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave., NW, Washington, DC 20210. Do not send the completed forms to this office.

Page 1

Injury	Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss
All other illnesses				

Updated: October 2024

- 156 -
Altura Engineering and Design
Reviewed: October 2024

Revised: October 2024

OSHA 300A Summary

OSHA's Form 300A (Rev. 01/2004) Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
(K)	(L)

Injury and Illness Types

Total number of...	(M)
(1) Injury	(4) Poisoning
(2) Skin Disorder	(5) Hearing Loss
(3) Respiratory Condition	(6) All Other Illnesses

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Year _____
U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-0176

Establishment information

Your establishment name _____
Street _____
City _____ State _____ Zip _____
Industry description (e.g., Manufacture of motor truck trailers)
Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

OR North American Industrial Classification (NAICS), if known (e.g., 336212)
_____ - _____ - _____ - _____ - _____

Employment information

Annual average number of employees _____
Total hours worked by all employees last year _____

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

Title

Phone

Date

OSHA Inspections

The purpose of this section is to establish the policy for all Altura Engineering and Design managers to follow in the event an OSHA compliance inspection is conducted.

The Occupational Safety and Health Administration (OSHA) are authorized to conduct workplace inspections to determine whether employees are complying with standards issued by the agency for safe and healthful workplaces. States have their own occupational safety and health programs and they regularly inspect workplaces. Inspections are usually conducted without advance notice and can be conducted for one or more of the following reasons:

1. **Imminent danger situations**—hazards that could cause death or serious physical harm receive top priority. Compliance officers will ask employers to correct these hazards immediately or remove endangered employees.
2. **Severe injuries and illnesses**—employers must report:
 - All work-related fatalities within 8 hours.
 - All work-related inpatient hospitalizations, amputations, or losses of an eye within 24 hours.
3. **Worker Complaints**—allegations of hazards or violations also receive a high priority. Employees may request anonymity when they file complaints.
4. **Referrals** of hazards from other federal, state or local agencies, individuals, organizations or the media receive consideration for inspection.
5. **Targeted inspections**—inspections aimed at specific high-hazard industries or individual workplaces that have experienced high rates of injuries and illnesses also receive priority.
6. **Follow-up inspections**—checks for abatement of violations cited during previous inspections are also conducted by the agency in certain circumstances.

Altura Engineering and Design' policy regarding an OSHA compliance inspection is to demonstrate "good faith" efforts to comply with all OSHA standards and any health and safety issues that should arise in an OSHA compliance inspection.

This policy details the phases of an OSHA compliance inspection, the response and attitude of management to an inspection, and steps to ensure completion of the appropriate follow-up corrective action.

Management is responsible for implementing this policy and correcting all health and safety deficiencies revealed during compliance inspections. The Safety Coordinator will provide technical assistance and coordination of corrective action as required.

Admitting an OSHA Compliance Officer

If an OSHA compliance inspector requests to conduct an inspection, the senior management member is to ask to see the officer's credentials. An OSHA inspector carries U.S. Department of Labor credentials bearing their photograph and a serial number. In every case, verify the authenticity of the compliance inspector's identification by calling the nearest OSHA office.

Note: DO NOT REFUSE THE COMPLIANCE OFFICER ADMITTANCE.

The senior management member is to contact the safety consultant immediately.

If Altura Engineering and Design requires a search warrant, inform the OSHA compliance officer before the opening conference begins. Altura Engineering and Design's right to challenge a warrant may be lost if it permits the inspection to proceed.

OSHA Facts

An OSHA inspection is divided into three parts:

1. The opening conference.
2. The walk-around inspection.
3. The closing conference.

There are no time limits specifying how long an inspector may remain on the premises.

Violations are considered to be "alleged violations" until they become a final order of the Occupational Safety and Health Review Commission.

Altura Engineering and Design may contest or appeal in writing any part of the citation within fifteen working days after receiving the citation.

A citation must be posted in the workplace for three days following its receipt or until the condition creating the alleged violation is corrected. Management will ask for clarification about any point(s) an inspector raises that they do not understand. Furthermore, management and employees will not admit to violating any safety standard.

If Altura Engineering and Design contests or appeals an alleged violation, copies of the appeal will be posted at the worksite.

Opening Conference

Before inspecting the premises, the OSHA compliance officer will conduct an opening conference at which they will explain the reason for the inspection (for example, employee or individual complaint), purpose of the visit; scope of the inspection, and the OSHA Standards that apply.

Several hundred standard interpretations and compliance letters exist relating directly to the topic of recordkeeping. Please refer to the search page on the OSHA website (<http://www.OSHA.gov>) for more information.

Senior Management must arrange for the Safety Coordinator or the president of Altura Engineering and Design to attend the opening conference. Management must request copies of all applicable safety and health standards as well as a copy of any employee complaint.

The Walk-Around Inspection

After the opening conference, the OSHA compliance officer will walk through the facility to inspect for safety and health hazards. At a minimum, the OSHA compliance officer will likely ask for documentation regarding:

- Compliance with the hazard communication standard;
- Compliance with the lock-out / tag-out standard;
- Recordkeeping for employee training; and
- The employee written safety and health management program.

When senior management members and other company employees accompany an OSHA compliance officer on an inspection, they should be respectful while firmly standing up for Altura Engineering and Design's rights and viewpoints. The conduct of company personnel should be in accordance with the following guidelines:

- Personnel will not physically interfere with the OSHA compliance officer when they are making the inspection.
- Personnel will not give false or misleading information.
- Personnel will accompany the OSHA compliance officer at all times during the inspection.
- Personnel's answers to an OSHA compliance officer's questions are to be responsive to the question asked. Do not offer any information beyond the scope of the question. Avoid making any statement that could be construed as an admission of a violation of any recognized health standard.
- Personnel will not discuss with the OSHA compliance officer any previous safety inspections.
- If the OSHA compliance officer wants to take photographs, senior management must request copies of the photographs. Senior management will also take photographs of the area from the same and differing angles.
- Management should watch and take notes regarding all activities of the OSHA compliance officer. Notes should be detailed and should include such pertinent information as to the name(s) of the OSHA compliance officer(s), time of arrival, activities of OSHA compliance officers, amount of time spent at each location, comments about violations and potential citations, who were interviewed, and what was said.
- Personnel will immediately correct minor but apparent safety problems in order to help establish Altura Engineering and Design's good faith effort to comply with all OSHA health and safety standards.

The OSHA compliance officer cannot and will not act in a consultative capacity. If the OSHA compliance officer sees or company personnel point out a violation, the OSHA compliance officer must issue a citation.

OSHA Standards

- 1904, Recording and Reporting Occupational Injuries and Illnesses.
- 1904 Table of Contents/Authority for 1904.
- 1904.1, Purpose and Scope.
- 1904.2, Log and Summary of Occupational Injuries and Illnesses.
- 1904.3, Period Covered.
- 1904.4, Supplementary Record.
- 1904.5, Annual Summary.
- 1904.6, Retention of Records.
- 1904.7, Access to Records.
- 1904.8, Reporting of Fatality or Multiple Hospitalization Incidents.
- 1904.9, Falsification, or Failure to Keep Records or Reports.
- 1904.10, Recordkeeping Under Approved State Plans.
- 1904.11, Change of Safety Contact.
- 1904.12, Definitions.
- 1904.13, Petitions for Record Keeping Exceptions.
- 1904.14, Employees Not in Fixed Establishments.
- 1904.15, Small Employers.
- 1904.16, Establishments Classified in Standard Industrial Classification Codes (SIC) 52-89, (except 52-54, 70, 75, 76, 79 and 80).
- 1904.17, Annual OSHA Injury and Illness Survey of Ten or More Employers.

- 1904.20, Description of statistical program.
- 1904.21, Duties of Employers.
- 1904.22, Effect of State Plans.
- 1904.30, OMB Control Numbers Under the Paperwork Reduction Act.

Other OSHA Standards with Recordkeeping Requirements

- 1910.95, Occupational Noise Exposure.
- 1910.120, Hazardous Waste Operations and Emergency Response.
- 1910.440, Recordkeeping Requirements.
- 1910.1000, Toxic & Hazardous Substances.
- 1910.1001, Asbestos.
- 1910.1018, Inorganic Arsenic.
- 1910.1025, Lead.
- 1910.1027, Cadmium.
- 1910.1028, Benzene.
- 1910.1029, Coke Oven Emissions.
- 1910.1030, Blood Borne Pathogens.
- 1910.1043, Cotton Dust.
- 1910.1044, 1,2-dibromo-3-chloropropane.
- 1910.1045, Acrylonitrile.
- 1910.1047, Ethylene oxide.
- 1910.1048, Formaldehyde.
- 1910.1050, Methyleneedianiline.
- 1910.1051, 1,3-Butadiene.
- 1910.1052, Methylene Chloride.
- 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories.
- 1913.10, Rules of Agency Practice and Procedure Concerning OSHA Access to Employee Medical Records.
- 1915.7, Competent Person.
- 1915.1001, Asbestos.
- 1919.11, Recordkeeping and Related Procedures Concerning Records in Custody of Accredited Persons.
- 1919.12, Recordkeeping and Related Procedures Concerning Records in Custody of the Vessel.
- 1925.3, Records.
- 1926.60, Methyleneedianiline.
- 1926.62, Lead.
- 1926.65, Hazardous Waste Operations and Emergency Response.
- 1926.800, Underground Construction.
- 1926.1091, Recordkeeping Requirements.
- 1926.1101, Asbestos.
- 1926.1127, Cadmium.
- 1960, Federal Employees.
- 1960.66, Purpose, Scope and General Provisions.
- 1960.67, Log of Occupational Injuries and Illnesses.
- 1960.68, Supplementary Record of Occupational Injuries and Illnesses.
- 1960.70, Reporting of Serious Accidents.
- 1960.71, Locations and Utilization of Records and Reports.
- 1960.72, Access to Records by Secretary.
- 1960.73, Retention of Records.
- 1960.74, Agency Annual Reports.
- Preambles to OSHA Standards.
- Reporting of Fatality or Multiple Hospitalization Incidents.

- OSHA Directives.
- CPL 2.80, Handling of Cases to Be Proposed for Violation-By-Violation Penalties, (1990, October 21), 15 pages. Includes procedures for record keeping violations.
- CPL 2.91, Enhanced Verification of Records, (1990, May 13), 6 pages.
- CPL 2-2.46, 29 CFR 1913.10(b) (6), Authorization and Procedures for Reviewing Medical Records, (1989, January 5), 5 pages.
- CPL 2-2.33, 29 CFR 1913.10, Rules of Agency Practice and Procedure Concerning OSHA Access to Employee Medical Records - Procedures Governing Enforcement Activities, (1982, February 8), 12 pages.
- CPL 2-2.32, 29 CFR 1913.10(b) (6), Authorization of Review of Specific Medical Information, (1981, January 19), 5 pages.
- CPL 2-2.30, 29 CFR 1913.10(b) (6), Authorization of Review of Medical Opinions, (1980, November 14), 2 pages.
- CPL 2.113, Fatality Inspection Procedures, (1996, April 1), 5 pages.
- Review Commission Decisions
- 81-2135, (1985, April 17), 5 pages. Failure to make records available during an inspection.
- 82-630, (1991, February 15), 9 pages. Making medical records available when a Workers Compensation claim is pending.
- 82-1016, (1987, March 18), 7 pages. Privacy of OSHA 300 and related records.
- 89-2614, (1993, February 3), 8 pages. Recording of elevated blood lead levels on the OSHA 300.
- 90-552, (1992, February 21), 2 pages. OSHA 300 must be maintained at each location.
- 89-433, (1993, April 27), 9 pages.
- 90-2179, (1993, April 1), 3 pages. Assessing separate penalties for multiple errors on the OSHA 300
- 87-0922, (1993, February 5), 25 pages.
- 88-237, (1994, May 23), 6 pages.
- 91-0110, (1996, January 19), 6 pages.

Questions an OSHA Compliance Officer May Ask

Administrative Interview

Do you have a written Hazard Communication Plan?

29 CFR 1910.1200 requires employers to have a written plan which describes how the training, labeling, SDS management and other requirements of "Right-to-Know" will be met. More citations and fines are given for this than anything else.

Do you have a complete written inventory (list) of hazardous materials?

29 CFR 1910.1200 requires employers maintain a current list of all hazardous materials used in the workplace. This list must be accessible to employees.

Has a specific person been assigned responsibility for your safety program?

29 CFR 1910.1200 and other regulations require that you assign responsibility for various aspects of the safety program. Some states specifically require that employers name a person with overall safety responsibility.

Do you have a formal disciplinary policy relating to safety?

29 CFR 1910. Various sections require employers enforce safety rules. Employees may not decide on their own when to follow the rules.

Do employees ever complain of headaches, nausea, dizziness or skin problems?

All OSHA standards require that employers evaluate workplace hazards and determine whether material use or employee complaints mean that there is any over-exposure to unsafe conditions. These are typical symptoms of over-exposure.

Do employees wear respirators or dust masks?

If "Yes": Do you have written respirator procedures?

29 CFR 1910.134 requires that if any employee uses a respirator, including a dust mask, written procedures must cover use, fit testing, cleaning and maintenance of the respirator.

Do you have records showing fit testing of respirators and training?

29 CFR 1910.134 requires employers to test the fit of each respirator on each employee and train the employee to check and properly use the respirator.

Do you have written training records?

29 CFR 1910.1200, .1450, .1030 and virtually all other OSHA regulations require written training records which document date, subject, attendees and trainer.

Do you have more than 10 employees?

If "Yes": Do you have a written Emergency Contingency Plan?

29 CFR 1910.38 outlines the requirements for an emergency contingency plan for those who employ more than 10 at any one time during the year.

Is your Form 300 up-to-date and posted February 1st through April 30th?

29 CFR 1904 requires that employers of more than 10 at any one time in the year maintain occupational illness and injury reports on Form 101 or equivalent and summarize them on Form 300 which is posted each Feb. 1 through April 30th.

Can you reasonably anticipate that any employees will be exposed to human blood this year because of their jobs?

Have you assigned responsibility for first-aid to an employee?

If "Yes": Do you have written Blood borne Pathogen Exposure Control Plan?

Have employees been trained in protective equipment and procedures?

29 CFR 1910.1030 requires that employers develop an Exposure Control Plan, train employees, keep records, and offer Hepatitis B vaccinations if it can be reasonably anticipated that one or more employees could be exposed to human blood or blood products as a result of doing their assigned duties. If you have assigned first aid responsibilities to an employee you are required to have a Blood borne Pathogen Program. Special waste management and use of approved disinfectants are also required. The key is "reasonable anticipation". Good Samaritan acts are not covered.

Janitorial and Chemical Storage Area Overview

Is the area neat and clean, without spills on the floor?

29 CFR 1910.22 requires that all work places be clean, orderly and sanitary.

Are there any containers without legible labels?

Do all secondary container labels list the product, the hazards and the manufacturer?

29 CFR 1910.1200 requires that all containers of hazardous materials be labeled. The manufacturer's label is fine if legible. If materials are moved from the original to a "secondary" container, it must be labeled. The label must include the name of the material, a description of the hazard and the manufacturer's name. Just the name is not enough.

Is there an SDS on hand for each hazardous material?

Are SDSs accessible to all employees at all times?

Pick a product. Ask to see the SDS. Could an employee have found it in 4-5 minutes?

29 CFR 1910.1200 requires that employers have an SDS for each hazardous material. Employees must have access to SDSs at all times during the work shift and be able to find a specific one in less than 5 minutes without asking for access to the collection.

General Work Areas Overview

Is the fire extinguisher tag marked for monthly inspections and serviced in the last year?

29 CFR 1910.157 requires that all portable fire extinguishers be visually inspected monthly and serviced annually. If the tag isn't marked it is difficult to prove inspections.

Is the area clean and uncluttered?

29 CFR 1910.22 requires that all work places be clean, orderly and sanitary.

Are oily rags kept anywhere but in metal cans with closed lids?

29 CFR 1910.38 requires employers to identify and correct fire hazards. Oily rags should be kept in a closed metal container.

Is coffee, drinks or food kept near any hazardous materials?

29 CFR 1910.142 requires that no employee be allowed to have food or beverages in an area where they could be contaminated with toxic or infectious materials.

Are there any unlabeled containers?

29 CFR 1910.1200 requires that all containers of hazardous materials be labeled. The manufacturer's label is fine if legible. If materials are moved from the original to a "secondary" container, it must be labeled. The label must include the name of the material, a description of the hazard and the manufacturer's name. Just the name is not enough.

Are any respirators stored which are not in bags or cabinets?

29 CFR 1910.134 requires that respirators be stored and maintained in a way that they will be cleaned, protected and ready for use. Respirators left in the open may absorb contaminants and become unusable.

Are gloves, goggles or safety glasses clean and in good repair?

29 CFR 1910.132 requires that safety equipment be maintained in clean and sanitary condition and that it be used only if in good repair. Broken or dirty equipment raises questions in an inspector's mind and leads to a more intensive inspection.

Are there extension cords across aisles or walkways?

29 CFR 1910.22 requires that all work place be clean, orderly and sanitary. Cords across aisles present a slip and fall hazard as well as a potential electrical hazard.

Look at ladders. Are there broken steps or parts in bad repair?

29 CFR 1910.25 requires employers to "inspect ladders frequently and those which have developed defects will be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use"."

Are there any broken or missing electrical switch or outlet covers?

29 CFR 1910.305 requires that pull boxes, junction boxes and fittings have plates or covers. Broken plates and covers do not provide adequate protection.

Employee Area Overview

Is the OSHA Poster or state equivalent posted?

Are emergency phone numbers posted by telephones?

Is an evacuation route map posted?

29 CFR 1910.38.

Is there a fully stocked first aid kit?

29 CFR 1910.262 requires that there be a first aid kit stocked with supplies appropriate to the situation. It must be continuously stocked for any emergency.

Are lunches, snacks or drinks stored in a cabinet or refrigerator with chemicals?

29 CFR 1910.142 requires that no employee be allowed to have food or beverages in an area where it could be contaminated with toxic or infectious materials.

Employee Interview

OSHA uses "performance based" standards for its enforcement of safety regulations. The best program on paper will mean nothing if your employees cannot do the right thing or do not know where to get information. Whether your employees can answer questions correctly (or not) is the test OSHA inspectors use to evaluate your compliance with OSHA rules.

Please show me the SDS for _____ (name of product) _____.

Did the employee answer -- "What's an SDS?"

Did the employee know where the SDSs are kept?

Did it take less than 5 minutes for the employee to find the correct SDS?

29 CFR 1910.1200 Employees should know what an SDS is and be able to locate a specific one in less than 5 minutes. SDSs should be indexed and stored in an organized fashion.

When you were last trained on safety issues?

Did the employee say "I don't remember" or "Never"?

Has training been in the last year?

29 CFR 1910.1200 states, "employers will provide information and training on hazardous chemicals at the time of their initial assignment and whenever a new hazard is introduced into their work area."

Some states also specifically require annual retraining.

If you had to evacuate the building where would you go for a head count?

Did the employee know a pre-determined specific place?

29 CFR 1910.38 requires that emergency contingency plans specify the means of accounting for all employees after an evacuation of the facility.

Closing Conference

After the walk around inspection, a closing conference is held with the OSHA compliance officer, senior management, and any employee representative. The OSHA compliance officer will discuss all unsafe and unhealthy situations observed and will identify all applicable sections of the standards which may have been violated. Management will ensure that all violations are understood. When appropriate, management will produce records to show compliance efforts and fully explain any difficulties that will be encountered in the correction of safety hazards. Management and employees will not admit violation or indicate how long it will take to correct a potential violation.

Post Inspection Activities

Time limits to correct violations generally range from five to thirty days unless an extension is requested. Time limits will be given in person at the closing conference or mailed within thirty days in a written report of the inspection findings. Follow-up action will be documented in writing by senior management listing specific action steps, the individual accountable, and the target date for completion. Management is responsible for completing all corrective action.

The Safety Coordinator will retain OSHA inspection reports, company responses, and all correspondence to and from OSHA permanently.

OSHA Recordkeeping and Posting Requirements

The purpose of this section is to establish the policy and procedures regarding Altura Engineering and Design' requirements for compliance with OSHA recordkeeping and posting guidelines for occupational injuries and illnesses.

All locations are to post the Job Safety and Health Protection poster (OSHA 3338-2015 or state equivalent) in prominent places in the workplace. (This poster can be downloaded and printed from <http://www.osha.gov>).

OSHA requires that employers maintain a record of certain occupational injuries that occur at each business establishment on the OSHA Form 300: Log and Summary of Occupational Injuries and Illnesses. At the end of each year, OSHA requires the summary section of the OSHA Form 300 to be posted at each business establishment no later than February 1st and remain in place until April 30th. Altura Engineering and Design will comply with this requirement. The Safety Coordinator is responsible for maintaining the information on the log in a current status and distributing the OSHA Form 300.

The Job Safety and Health Protection poster (OSHA 2203) and the Form 300: Log and Summary of Occupational Injuries and Illnesses can be ordered from OSHA, free of charge, by calling (303) 844-1600.

Record Retention

OSHA Form 300 reports from January through November can be discarded upon receipt of the next monthly report.

Year-end OSHA Form 300s must be retained for five years following the year to which they relate.

Common OSHA Violations

Common OSHA violations include:

- Failing to provide information about the Hazard Communication Standard and the actual hazards of the chemicals present.
- No Hazard Communication Program.
- No written Fire Prevention Program.
- Not maintaining an OSHA Log 300.
- Not maintaining SDSs for hazardous chemicals in use.
- Mislabeling containers or groups of containers holding hazardous chemicals.
- No marked exits or accesses to exits.
- Not employing proper building design, construction, maintenance, or occupancy of a building or structure containing employees.
- Not having fire extinguishers located or mounted in accessible and safe locations or has not provided them at all.
- Failing to provide fire extinguisher training.
- Improper wiring present in one of the following ways:
 - Unused openings and electrical boxes unclosed.
 - Conductors entering boxes that are not protected from abrasion.
- Improperly using a flexible cord in one of the following ways:
 - Using a flexible cord smaller than a #12 that is spliced.
 - Having a solder that is used to splice a flexible cord.
 - Using flexible cords as a substitute for fixed wiring.
 - Flexible cords running through holes in the ceiling and/or walls or through doorways or windows.
- Exposed or non-current carrying metal surfaces of fixed equipment that is not grounded.
- Failing to provide electrical boxes and fittings with an approved cover or fails to ground metal covers.
- Disconnects, circuit breakers, and other over-current devices are not legibly and permanently labeled.
- Tongue guard on a grinder that is more than $\frac{1}{4}$ " from the edge of the stone.
- Missing or inadequate machine guarding.
- Work rest that is missing or more than $\frac{1}{8}$ " from a grinding wheel.
- Not providing a suitable eyewash or shower.
- Employing persons without respirators to perform tasks that require respirators.
- No established written standard operating procedures governing the use and selection of respirators.
- Not making conveniently available protectors suitable for employees' tasks to be performed. Protective eye, head, face, body, feet, and hand equipment have not been provided when reasonable probability of injury exists.
- Not providing a platform four feet or more from the ground with a standard railing (and toe board) where required.
- Using broken or damaged ladders.
- Using furniture, barrels, boxes, or other devices in lieu of ladders.

Accident Investigation Program

Investigation of any accident is an important management tool for controlling accidents and their related costs. If something is not learned from an accident, it is a total loss. Something causes accidents. The reasons or basic root causes must be determined. The information that is learned can be used to improve the operation involved and make it safer and more efficient. It is, therefore, a policy of Altura Engineering and Design that the Site Supervisor or appointee investigates all injuries requiring a visit to a physician, clinic, or hospital, and any property damage incidents involving \$500 or more, or near misses that had the potential to result in an accident of this magnitude.

However, even if no report is submitted, all incidents, including "near misses," should be questioned using the same investigative techniques in order that corrective action may be taken to prevent a similar incident from occurring. While all incidents should be investigated, the extent of such investigation will reflect the seriousness of the incident utilizing a root cause analysis process or other similar method.

Accidents are usually the result of conditions or actions that the supervisors and employees are often in the best position to control. An accident is simply an unplanned event that interrupts operations and results in loss of time, property damage or bodily injury. They usually arise from one of four areas: equipment, material, people, or environment.

The Purpose of Accident Investigations

Millions of words have been written explaining the importance and purpose of accident investigations, but they can all be summarized in one word - prevention. There are many benefits from accident investigations but one purpose - prevention.

This is how investigations will help prevent future accidents:

- Investigations uncover unknown factors which can lead to accidents. It develops why the employee operated in the way they did or why the physical condition developed.
- Investigations develop personal factors which the employee has which may also be involved with other employees and may contribute to the same or more serious accidents.
- By investigating for prevention of accidents, we communicate to employees our concern for the employee and desire to provide a safe workplace which improves morale and safety conscientiousness.
- Investigations usually uncover improvements in the way the job can be done - improved efficiency and reduction in exposures.

A simple, small accident may have potential to become a major loss. We may have been just "lucky". Without investigations of these small accidents, we may be lulled into thinking our major exposures are under control until we have a major or serious loss. The purpose of investigations is not to "place blame" on anyone, but to determine what within the system went wrong so that it may be corrected. This attitude during an investigation produces an environment that will assist in obtaining more effective answers and facts.

Individual responsibilities for reporting and investigation must be pre-determined and assigned prior to incidents. For Altura Engineering and Design that means each supervisor should conduct these investigations using an accident/ investigation form, along with the Altura Engineering and Design Site Supervisor or designee deems necessary. The immediate supervisor is the most knowledgeable of the work area and thus, best able to determine most of the underlying causes of an accident. Depending on the nature and/ or severity of the accident and/ or other

conditions, accidents may also be investigated by the project manager/lead men, or anyone Altura Engineering and Design deems necessary and authorized.

Personnel must be trained in their roles and responsibilities for incident response and incident investigation techniques. Training relative to incident investigation and reporting (Awareness, First Responder, Investigation, and training frequency) will be conducted for all supervisors initially upon assignment, and every three (3) years thereafter.

How to Investigate an Accident

The first step in any accident investigation is to ensure that all injured parties have received emergency rescue and medical assistance, as needed. Reporting of the incident must occur in a specified manner and the reporting sequence must be posted. For example, in the event of an incident, the following are contacted in order: 911, department supervisor, section manager, company physician, security, human resources, safety department, and other organizations as required. OSHA requires reporting of incidents resulting in the death of an employee within 8 hours of their discovery. An in-patient hospitalization, amputation, or eye loss must be reported to OSHA within 24 hours. Site owners typically require all incidents to be reported including, but not limited to, injuries, spills, property damage, fires, explosions, and vehicle damage. Incidents will be reported to the site owner as soon as possible or in a timely manner (at least within 24 hours of incident). Once this is complete, a systematic approach to determining the facts surrounding the cause or causes of the accident should be initiated. A suggested approach to the accident investigation follows:

- A. Neutralize, secure, or isolate any hazardous conditions to prevent further injuries. This step may also require that an unsafe act(s) be halted or stopped. Employees who could be first responders will be trained and qualified in first aid techniques to control the degree of loss during the immediate post-incident phase. After immediate rescue, actions to prevent further loss should occur. For example, maintenance personnel should be summoned to assess integrity of buildings and equipment, engineering personnel to evaluate the need for bracing of structures, and special equipment/response requirements such as safe rendering of hazardous materials or explosives employed.
- B. Once the potential for further injury has been reasonably ensured, the investigation should focus on determining the facts relating to the accident. Equipment used in the investigation may include some or all of the following items: writing equipment such as pens/paper, measurement equipment such as tape measures and rulers, cameras, small tools, audio recorder, PPE, marking devices such as flags, equipment manuals, etc. Accident fact finding should be conducted using a logical step-by-step process. Following is a suggested method:
 1. Secure the accident scene using barricades or other methods to protect evidence. Initial identification of evidence immediately following the incident might include a listing of people, equipment, and materials involved and a recording of environmental factors such as weather, illumination, temperature, noise, ventilation, etc. Evidence such as people, positions of equipment, parts, and papers must be preserved, secured, and collected through notes, photographs, witness statements, flagging, and impoundment of documents and equipment.
 2. Make video of the site and/or take photographs from as many angles as possible to create a visual record of the scene. If needed, make sketches, diagrams, and/ or drawings of the site.
 3. Collect and preserve evidence. Document where, when, and how evidence was collected. Document the facts only, avoid opinions. A photographic record of evidence collection could be

helpful and may be extremely valuable in the final analysis of the accident. Do not leave any stone unturned when collecting evidence. The scene will never be better for collecting evidence and determining facts than during the initial investigation immediately following the incident.

- a. Look for hard evidence. This is factual information that is obvious and difficult to dispute, such as, equipment condition, building or structure condition, the existence or non-existence of personal protective equipment or engineering controls, broken parts or pieces, time logs, training logs, etc.
- b. If a piece of evidence needs further analysis by an expert, such as a broken tool or damaged equipment, tag the item, document the circumstances surrounding it and send it for analysis.
- c. An important step in any accident investigation is to interview the persons closely associated with the accident or incident. Witness interviews and statements must be collected. Locating witnesses, ensuring unbiased testimony, obtaining appropriate interview locations, and use of trained interviewers should be detailed. The need for follow-up interviews should also be addressed. There are certain proven techniques for successful interviews, as follows:
 - Put the person being interviewed at ease by pointing out the sole purpose is prevention of recurrence. Point out that the investigation is not for fault determination or finding out who can be blamed.
 - Conduct the interview at the scene if at all practical. This helps put the person at ease and also helps in finding solutions.
 - Conduct one-on-one interviews of all individuals involved or who witnessed the incident or their version of the accident, and do not make judgments until the facts are in. Do not conduct group interviews because important facts and details could be missed due to shy or non-participating group members.
 - Ask any necessary questions. Ask only necessary questions and all questions should be asked in a friendly, constructive manner. Use the "W" questions -WHO, WHAT, WHERE, WHEN, WHY and HOW - questions that cannot be answered with a yes or no. These will give more descriptive answers and make development of the accident causes more effective.

The underlying cause may be either an "unsafe act" or an "unsafe condition" or a combination of the two. Studies have shown that the "unsafe act" is the major contributing factor in approximately eighty-five percent (85%) of all accidents while "unsafe condition" is the major factor in only about fifteen percent (15%). It should be remembered, however, that it is much easier to uncover "unsafe conditions" than "unsafe acts" unless the investigation is complete and thorough. Do not stop with the first answer received. Continue to question until all facts are determined. Close the interview on a positive note. Thank the person(s) for their assistance in developing the facts and discuss what actions can be taken to prevent recurrences. One way to secure the person's involvement and continued cooperation is to find out what they think would prevent recurrences.

Lastly, complete the accident investigation report. The report should be a summary of the facts, determined by evidence and interviews, gathered during the investigation. Do not offer opinions in the report and only draw conclusions that can be totally supported by the facts as determined by the investigation.

The investigation should be made as soon as practical after the injured person has received appropriate medical attention. The report will be completed and submitted to Altura Engineering and Design' Site Supervisor within 24 hours after the incident occurs.

The report should not only include the basic cause of the accident, but an overall review of methods, processes and controls. The accident facts should also include corrective action to be taken in order to eliminate or greatly reduce similar occurrences. Documentation on who will be responsible for implementing corrective actions, target dates for completing the corrective actions, assigning responsibility for follow-up to ensure that corrective actions have been implemented and notes on any interim or remedial action needed, should be included in the written report. A good incident investigation should result in corrective actions. Individuals should be assigned responsibilities relative to the corrective actions, and these actions should be tracked to closure. Written incident reports should be prepared and include an incident report form and a detailed narrative statement concerning the events. The format of the narrative report may include an introduction, methodology, summary of the incident, investigation, board member names, narrative of the event, findings and recommendations. Photographs, witness statements, drawings, etc. should be included. Lessons learned should be reviewed and communicated. Changes to processes must be placed into effect to prevent reoccurrence or similar events.

Accidents involving serious injury such as fractures, severe lacerations, amputation, unconsciousness, etc. will be reported immediately to the Altura Engineering and Design Site Supervisor or designee and will conduct an immediate on-the-scene investigation of the accident.

Drug & Alcohol Free Workplace Policy

Purpose

Altura Engineering and Design is committed to providing its employees with a safe workplace, promoting a program which encourages high standards of employee health and encouraging an environment free of the illegal elements of drug and alcohol abuse fosters. For their part, all employees are expected to be in suitable mental and physical condition while at work and to perform their jobs in a satisfactory fashion. In instances in which the use of alcohol or other drugs interferes with these goals, appropriate action will be taken.

Altura Engineering and Design has no intention or desire to intrude into the personal lives of its employees. However, it is recognized that off-the-job, as well as on-the-job, involvement with alcohol and drugs can have an impact on the workplace and our ability to achieve our goal of maintaining a drug-free work environment. Employees are expected to report for work with no alcohol or other drugs (as described below) in their bodies, in their possession or contained in their automobile or belongings. While employees may make their own lifestyle choices Altura Engineering and Design will not accept the risks or performance problems which substance abuse can create. Additionally, the absence of drugs or alcohol will prevent their abuse at the workplace and deter the illegal elements drug and alcohol abuse fosters.

Company Policy

Illegal Drugs - The possession, sale, or use of illegal drugs (defined as any drug or drug-like substance whose sale, use or possession is unlawful) is inconsistent with the Altura Engineering and Design objective of operating in a safe and efficient manner. Accordingly, no officer, employee, agent, contractor or visitor shall use or have in his or her possession illegal drugs during working hours or on company property at any time. No such substances shall be stored in any vehicles located on company premises. No illegal drugs will be stored in any company vehicle at any time. Additionally, no officer, employee, agent or contractor shall report to work while under the influence of illegal drugs. Any employee who engages in such conduct will be disciplined and/or terminated.

Alcoholic Beverages - The use of alcoholic beverages by employees or contractors during working hours, on company property, or while operating company vehicles is also inconsistent with the objective of working in a safe and efficient manner. Accordingly, no employee, agent, or contractor shall use or possess alcoholic beverages during working hours, on company property or while in company vehicles. Serving alcoholic beverages at company functions, the sole exception to this policy must be authorized in advance by the appropriate senior officers of Altura Engineering and Design. Additionally, no officer, employee, agent, or contractor shall report to work at any time with identifiable amounts of alcohol in their blood, breath or urine. Employees in violation of this policy will be disciplined and/or terminated.

Prescription Drugs - An employee under the influence of a legally prescribed controlled substance which could significantly affect job performance or safety has an obligation to inquire and determine whether the legal drug the employee is taking may or will affect the employee's ability to safely and efficiently perform the employee's job duties. If the employee is using such a drug at the direction of a physician, dentist or other licensed practitioner, the employee is required to obtain a written statement of any work restrictions. Any such information must be reported to Management prior to commencing work under the influence of any such drug. Employees taking any controlled substance prescribed by a licensed physician must have the drug in its original container, which identifies the drug, dosage, date of prescription, and authorizing physician. An employee may continue to work, even though under the influence of a legal drug, if Management has determined that given reasonable accommodations, the employee does not pose a threat to his or her own safety or the safety of co-workers, customers, or the public. If reasonable accommodation cannot be made, the employee may be required to take a leave of absence or comply with other appropriate action as determined by Management.

Drug and Alcohol Screening

Applicants considered for Employment - All applicants considered for employment will be tested for drugs prior to the required pre-employment physical. Applicants will be requested to sign a consent/release form authorizing the drug screening test and the submission of its results to Altura Engineering and Design only. Applicants who refuse to participate or have positive drug test results will not be considered for employment at that time. These applicants who subsequently reapply for employment will be required to successfully pass a drug screening test at their expense, at a facility of Altura Engineering and Design choice, before they are considered as a prospective employee. Results from the drug test will be communicated only to Altura Engineering and Design hiring officer. Pre-employment specimens will be discarded upon completion of test results.

Fitness for Duty - Employees whose performance indicates that they are unfit for duty or whose actions become suspect regarding the possibility of abusing drugs or alcohol or those employees involved in any "on-the-job" accident will be required to participate in a drug and/or alcohol test.

Random Drug and Alcohol Testing - Following the inception date of this policy, all employees will be requested to participate in a drug and/or alcohol test procedure, at company expense. Any employee failing to participate in this testing procedure may be terminated. All participants whose in-house test results are positive will be required to be re-tested at a company specified testing facility and/or any other licensed practitioner. Positive results at this second procedure will mandate disciplinary action, up to and including termination. All employees will be subject to random drug and/or alcohol testing procedures, as indicated by the test facility, employee schedules and company policy. These random tests will be unannounced. Therefore, some employees may experience back to back testing as generated by random selection. Any employee failing to comply with these random test procedures may be terminated.

Notice to Employees Regarding Workplace Searches

Altura Engineering and Design reserves the right to perform necessary searches of all individuals and their personal effects, including items stored on company property (e.g. lockers, personal vehicles) while on company premises, and company owned vehicles at any time. Such searches may be conducted without prior notice. Refusal to submit to a necessary search will result in disciplinary punishment.

Notice of Conviction

An employee convicted under a criminal drug statute for a violation occurring in the workplace must notify the Drug and Alcohol Program Administrator or management/human resource representative no later than five days after the conviction. Failure to provide notice within the required time frame will result in disciplinary action and/or termination.

Statement of Employment Condition

As described above, it is the intent of this company to establish a safe, healthy and enjoyable environment for all its employees; to that end, we are committed to taking the appropriate measures to provide a company environment free of drugs and alcohol. It is our hope that this environment will attract the conscientious and law-abiding employee while deterring the illegal elements. It is therefore mandatory and a condition of employment with this company that each individual accepts and agrees to abide by the policies set forth in this document. Failure to accept these policies by signature of this document will mandate termination.

Post-Accident Testing

Drug & Alcohol Free Workplace Policy

Any employee involved in an on-the-job accident or injury under circumstances that suggest possible use or influence of drugs or alcohol in the accident or injury event may be asked to submit to a drug and/or alcohol test when allowed or required by regulation. "Involved in an on-the-job accident or injury" means not only the one who was injured, but also the employee(s) who potentially contributed to the accident or injury event in any way.

Inception Dates/Disciplinary Actions

Altura Engineering and Design drug/alcohol policy is effective October 2024. All employees are subject to drug testing analysis as part of pre-employment, post-accident (when allowed or required by regulation), random, reasonable cause and/or return to duty requirements.

ILLEGAL DRUGS - Possession of during working hours will result in immediate disciplinary action, up to and including termination.

ALCOHOLIC BEVERAGES - Use of during working hours is absolutely prohibited and will result in immediate disciplinary action, up to and including termination.

PRESCRIPTION DRUGS - Any employee who tests positive as a result of a prescribed drug must provide verification that the prescription is theirs. If documentation (physician's verification) cannot be produced the test will be classified as positive. If second test is positive the employee may be terminated.

INHALANTS - Verified abuse of inhalants will be grounds for disciplinary action up to and including termination.

FITNESS OF DUTY - Refusal of drug/alcohol test will be grounds for disciplinary action up to and including termination.

MASS/RANDOM TESTING - Any employee who tests positive for illegal drugs will receive disciplinary action up to and including termination.

ALCOHOLIC BEVERAGES - No alcoholic beverages will be allowed at company parties/functions without the consent of Management.

WORKPLACE SEARCHES - Possession of illegal contraband on company property or in company vehicles will be grounds for termination. Refusal to workplace searches will be grounds for disciplinary action up to and including termination.

NOTIFICATION OF CONVICTION - Any employee convicted of a criminal drug statute offense will receive disciplinary action and may be terminated.

While we do not sponsor, participate, or endorse any specific drug treatment or education programs, such programs are available through public and private sector(s). Employees who abuse drugs are a danger to themselves, their co-workers, and the company facilities in our area. Affected employees are encouraged to seek assistance for themselves and their dependents.

Drug & Alcohol Free Workplace Policy

Altura Engineering and Design

DRUG-FREE WORKPLACE POLICY

APPLICANT/EMPLOYEE ACKNOWLEDGMENT

I acknowledge that I have received a copy of Altura Engineering and Design Drug-Free Workplace Policy. I also acknowledge I have been informed of Altura Engineering and Design policy of maintaining a drug-free workplace.

I have also been informed that I must, as a condition of employment, abide by the terms of Altura Engineering and Design Drug-Free Workplace Policy, and that I must report any criminal drug statute conviction committed in the workplace to my supervisor within five (5) days of such conviction. I understand and agree that I may be subject to substance abuse testing and searched in accordance with this and other applicable Company policies. I understand that should I fail to abide by this policy, including but not limited to submitting to a substance abuse test or search, that I may be terminated.

I have read the policy, I understand what is required of me under the policy, and I agree to abide by it.

Print or Type Employee's Name

Print or Type Supervisor's Name

Employee's Signature

Supervisor's Signature

Date

Date

Driving Safety Policy

Official Vehicle Use

Altura Engineering and Design requires that an operator hold a valid driver's license for the class of vehicle that they are authorized to operate. Only authorized employees will drive a motor vehicle in the course and scope of work or operate a company-owned vehicle.

Responsibility

Each supervisor is responsible for restricting the use of company-furnished vehicles to official company business only. They are also responsible for limiting use of such vehicles to properly authorized personnel. Only authorized employees will be allowed to operate mobile equipment. Authorization to operate mobile equipment will be issued to employees qualifying under appropriate training and proficiency testing.

Use of an official vehicle for an employee's personal convenience or benefit constitutes misuse and is prohibited. Employees who misuse company vehicles are subject to disciplinary action and financial responsibility for any accident. Drivers will not use cellphones, or manipulate radios or other equipment which may cause distraction while in motion. Drivers will not exceed posted speed limits and will maintain a safe distance between other vehicles at all times. Drivers will not operate a motor vehicle while under the influence of alcohol, illegal drugs, or prescription or over-the-counter medications that might impair their driving skills.

All drivers of company vehicles are responsible for reporting any damage or deficiency to management. Repairs, adjustments, and maintenance can only be accomplished if the driver adequately documents and reports these items. At the beginning of each shift, the operator will inspect and check the assigned equipment, reporting immediately to their supervisor any malfunction of the clutch or of the braking system, steering, lighting, or control system and locking/tagging out the equipment if necessary. The vehicle will be fit for the purpose, and will be maintained in safe working order. Loads will be secure and will not exceed the manufacturer's specifications and legal limits for the vehicle. Failure to report unsafe vehicle conditions can result in an accident.

Safety Belts

Unauthorized personnel will not be permitted to ride on equipment unless it is equipped to accommodate riders safely. Employees operating or riding in company-furnished vehicles, or personal vehicles on official company business, are required to wear safety belts at all times. The driver should instruct the passengers to fasten their safety belts before operating the vehicle.

Accidents and Moving Violations

Any moving violation or any accident involving Altura Engineering and Design vehicles (including private, rented, or leased vehicles used on official company business) must be reported to the driver's immediate supervisor. If the driver is unable to make a report, another employee who knows the details of the accident must make the report.

It is Altura Engineering and Design' policy that employees should not admit to responsibility for vehicle accidents occurring while on official business. It is important that such admissions, when appropriate, be reserved for Altura Engineering and Design and its insurance carrier. The law requires that each driver involved in a vehicle accident must show their license on request by the other party. Be sure to obtain adequate information on the

drivers involved as well as on the owner of the vehicles. Names, addresses, driver's license numbers, vehicle descriptions, and registration information are essential. In addition, a description of damages is needed for completion of accident reports. If the accident is investigated by off-site police agencies, request that a copy of the police report be sent to Altura Engineering and Design or obtain the name and department of the investigating officer.

In case of collision with an unattended vehicle (or other property), the driver of the moving vehicle is required by law to notify the other party and to exchange information pertaining to the collision. If unable to locate the other party, leave a note in, or attached to, the vehicle (or other property) giving the driver's name, address, and vehicle license number.

The driver of any Altura Engineering and Design vehicle involved in an accident must also complete a company Motor Vehicle Accident Report and submit it to their supervisor within one work day of the accident.

The supervisor should interview the driver and complete the supervisor's portion of the report. The completed form and vehicle must be taken to the Administration Office so that damages may be estimated and repairs scheduled.

Forms for obtaining appropriate information about an accident are carried in the job trailer or may be obtained from Administration. The responsible Safety Coordinator will receive copies of all accident reports and will prepare any required OSHA reports

Vehicle Safety Policy

The purpose of this policy is to ensure the safety of those individuals, who drive Altura Engineering and Design company vehicles. Vehicle accidents are costly to our company, but more importantly, they may result in injury to you or others. It is the driver's responsibility to operate the vehicle in a safe manner and to drive defensively to prevent injuries and property damage. As such, Altura Engineering and Design endorses all applicable state motor vehicle regulations relating to driver responsibility. Altura Engineering and Design expects each driver to drive in a safe and courteous manner pursuant to the following safety rules. The attitude you take when behind the wheel is the single most important factor in driving safely.

Safety Procedures

- Drivers must obey all traffic signs and reduce speed at railroad crossings.
- Drivers must stay on the permitted route when carrying a permit load.
- The drivers will not let anyone to ride on the outside of the truck at any time. No one is allowed to ride the winch line, boom or any other lifting device without a safety harness and a man basket.
- Drivers will use a ladder to climb. DO NOT CLIMB UP OR DOWN THE POLES OF THE TRUCK.
- Drivers will make sure employees stay clear of the truck when it is in motion.
- The driver is responsible for all speeding tickets and an accumulation of more than three moving violations will result in termination.
- Abuse to equipment and reckless driving will result in disciplinary action and/or termination.
- Failure to maintain proper inflation in tires and oil level in the motor will result in disciplinary action up to and including termination.
- Continual damages to tires will result in disciplinary action up to and including termination.
- All drivers will plan vacations well in advance to accommodate the needs of Altura Engineering and Design. The truck supervisor must be notified in advance and approve any vacation.
- The driver is responsible for properly filling out of the Driver's Log. Falsification of driver's logs will result in termination of the driver.
- Company vehicles are to be driven for company business ONLY. Unapproved personal use of company vehicles is prohibited. No unauthorized persons are allowed to ride in company vehicles.
- Any employee who has a driver's license revoked or suspended will immediately notify their supervisor and discontinue operation of the company vehicle. Failure to do so may result in disciplinary action, including termination.
- All accidents involving company vehicles, regardless of severity, must be reported to the police and your supervisor. An accident report is required to be filled out by the driver and turned in to your supervisor for review and investigation. Failing to stop after an accident and/or failure to report an accident may result in disciplinary action, including termination.
- Employees do not have permission to drive, operate or be within a company vehicle while using, possessing, transporting, or selling intoxicating beverages, illegal drugs or firearms, or any other weapons. **EMPLOYEES ARE NOT AUTHORIZED TO OPERATE A COMPANY VEHICLE WHILE INTOXICATED OR UNDER THE INFLUENCE OF ANY ILLEGAL DRUGS.**
- All drivers and authorized employees operating or riding in company vehicles must wear seat belts, even if air bags are available.
- All drivers of Altura Engineering and Design will follow all safety procedures. Failure to comply with these rules may result in disciplinary action up to and including termination.
- Drivers are responsible for the security of company vehicles used by them. The vehicle engine must be shut off, ignition keys removed, and doors locked whenever the vehicle is left unattended

- Report, in writing, any mechanical difficulties or repair needs to your vehicle to your Supervisor.
- Altura Engineering and Design may revoke any employee's driving privileges when, at Altura Engineering and Design's sole discretion; it is determined that such revocation is in the best interest of Altura Engineering and Design.
- Drivers are to refrain from placing outgoing calls, texting or responding to calls, pagers, while the vehicle is in motion. This prohibition of cell phone or similar device use includes receiving or placing calls, text messaging, surfing the internet, receiving or responding to emails checking for phone messages, or any other purpose related to your employment.
- We recognize that other distractions occur during driving, however curbing the use of cell phones, while driving is one way to minimize the risk of accidents.
- Drivers are required to utilize hard hats, steel toed boots, and safety glasses at all times while on location.

Driver Eligibility

- Drivers must have a valid driver's license for the type of vehicle to be operated, and keep the license(s) with them at all times while driving. All Commercial Driver's License (CDL) drivers must comply with all applicable D.O.T. regulations, including successful completion on medical, drug, and alcohol evaluations.
- New applicants for driving are required to fill out the "Driver Application Supplement" with their application.
- Company vehicles are to be driven by authorized employees ONLY, except in emergencies or in case of repair testing by a mechanic. Other employees and family members are not authorized to drive the company vehicle. Only qualified employees who have executed this Driver Use Agreement will be allowed to drive or operate a company vehicle.
- Motor Vehicle Records will be ordered periodically to assess driving records. An unfavorable record will result in the loss of company vehicle driving privileges or employment. A standard method of evaluation for all prospective and current drivers' MVR will be used.
 - One (1) or more type 'A' violations in the past 2 years (as defined below).
 - Three (3) or more ticketed accidents in the last 2 years.
 - Three (3) or more 'B' violations in the past 2 years.
 - Any combination of accidents and type 'B' violations which equal four (4) or more in the last two years.

Type 'A' Violations:

- Driving While Intoxicated
- Driving While Under the Influence of Drugs
- Negligent Homicide Arising out of the use of a Motor Vehicle (gross negligence)
- Operating During a period of Suspension or Revocation
- Using a Motor Vehicle for the commission of a Felony
- Aggravated Assault with a Motor Vehicle
- Operating a Motor Vehicle Without the Owners Authority (grand theft)
- Permitting an Unlicensed Person to Drive
- Reckless Driving while texting
- Speed Contest (Racing)
- Hit and Run (Bodily Injury or Property Damage)

Type 'B' Violations

- All Moving Violations not listed as Type 'A' Violations.

General Shop and Work Area Safety

Accepted safety and health precautions will be practiced in the use of general shop machines, fixed and portable power tools, and other hand held equipment so that all employees using such equipment will be protected against personal injury. It is also Altura Engineering and Design' policy to institute practices which will minimize the danger of injury to non-operators or other personnel who may be in the area and to minimize the risk to visitors.

Responsibilities

Altura Engineering and Design' supervisors must recognize factors in the workplace with accident potential. The supervisor will provide frequent inspections of job sites, work methods, materials, and equipment used. Any unsafe equipment and material will be tagged and rendered inoperative or physically removed from its place of operation. The supervisor will permit only qualified personnel to operate equipment and machinery according to safe work practices.

Supervisors are responsible for:

- Ensuring safe working conditions.
- Providing necessary protective equipment.
- Ensuring that required guards and protective equipment are provided, used, and properly maintained.
- Ensuring that tools and equipment are properly maintained and used.
- Planning the workload and assigning employees to jobs which they are qualified to perform and ensuring that the employees understand the work to be done, the hazards that may be encountered, and the proper procedures for doing the work safely.
- Taking immediate action to correct any violation of safety rules observed or reported to them.
- Ensuring workers exposed or potentially exposed to hazardous chemicals/materials have access to appropriate Safety Data Sheets (SDS).
- Being familiar with all procedures for safe use and guarding of machines, PPE required, shielding against possible injury to other employees or visitors and enforcing safe practices.
- Training new employees by providing and requiring manuals to be studied and personally instructing and requesting the assistance of veteran employees already familiar with required safety precautions.
- Posting signs indicating the use of powered machines by "Authorized Personnel Only" and requiring the employees under their supervision to assist in the enforcement of this policy. No one is allowed to use fixed or portable powered shop machines or welding equipment without sufficient training to the supervisor's satisfaction.
- Designating a person to be responsible for general management of a specific shop area and notifying the Safety Coordinator of the person selected.
- Designating a qualified person to be responsible for each major fixed powered machine or tool, posting the name on or near the apparatus, and notifying the Safety Coordinator accordingly.
- Coordinating with the Safety Coordinator to plan and conduct safety meetings with employees as often as needed and warranted. Topics to be discussed at each session will be selected to fit current operations and any unsafe trends. Supervisors will also lead the discussion and encourage each employee to participate, and they may assign one employee on a rotating basis to make a short presentation of the topic to get discussion started.
- Providing appropriate marking of shop floor areas to identify restricted work areas or "approved operator only" yellow floor lines.
- Making periodic inspections of shop areas and other industrial areas, noting all deficiencies, and initiating corrective actions.

General Shop and Work Area Safety

- Ensuring that all painting operations or other operations are conducted in well ventilated areas asking for assistance from the Safety Coordinator in making this determination and to provide necessary respirators when appropriate.

Employees will be thoroughly trained in the use of protective equipment, guards, and safeguards for chemicals and safe operation of equipment, machines, and tools they use or operate. Only employees who have been trained and those undergoing supervised on-the-job training (OJT) will be allowed to use shop equipment, machines, and tools.

Employees are responsible for:

- Complying with OSHA standards, company policies, and good safe practices when using fixed and portable power tools, equipment, and hand-held equipment.
- Cleaning up when finished using equipment.
- Maintaining the tools, equipment, and work area in an orderly and safe manner.
- Properly training new users of equipment for which they are responsible.
- Sharing responsibility with the supervisor for identifying and marking shop floor areas.
- Not using or permitting use of defective equipment or tools in disrepair. Malfunctioning equipment and damaged hand tools will be reported and repairs made before using the equipment or tools. If repairs are not possible, the equipment or tools will be discarded.

The Safety Coordinator is responsible for:

- Ensuring OSHA standards, company policies, and good safe practices are carried out.
- Assisting supervisors and employees in defining hazards and designating safe practices.
- Conducting routine and periodic inspections of shop areas for compliance to OSHA standards.
- Conducting periodic inspections of employee hand tools and portable power tools.
- Assisting the supervisor in planning and conducting safety meetings.

Shop Procedures

All portable and fixed powered shop machines and tools will be equipped with approved guarding devices. Guards are to be in place while using the machine. Equipment must also be properly electrically grounded before use.

Proper PPE will be provided (safety glasses, goggles, or shields) and used during grinding or other work that may produce flying particles. Company-approved dust respirators will be used for work that produces airborne dust particles. Eye protection is required during electrical or electronic hardware repair, installation, and open front operation.

Approved face, eye, and body protection will be used during any burning or welding operation. Also, sufficient shielding that provides protection to others in the immediate area will be used.

No flammable materials (paints, solvents, or chemicals) will be stored within the immediate area of any burning or welding operation. Flammable materials must be stored in OSHA and company approved cabinets.

Any employee using portable fixed tools must not wear loose clothing. Anyone with long hair must tie back the hair or wear acceptable hair protection while operating equipment. All stock must be clamped down; attempting to hold stock with hands will not be permitted.

General Shop and Work Area Safety

Before any employee performs service or maintenance on a machine or equipment where the unexpected energizing, start up, or release of stored energy could occur and cause injury, the machine or equipment will be made safe. Locking out and tagging out energy isolating devices and otherwise disabling the machines or equipment will accomplish this. (See Lock-Out / Tag-Out Policy).

Clean-up must be done immediately following use of power equipment or hand tools.

All burning or welding operations outside of the shop area requires a Hot Work permit from the Safety Coordinator.

Good housekeeping will be maintained in the shop area. Material will be stored in such a manner that there is no danger from sliding, falling, striking against, or cutting. Scrap stock must be cleaned from floor and work benches following each job or at the end of each day.

Personal Protective Equipment

Personal protective equipment is not a substitute for engineering controls or feasible work or administrative procedures. While these controls are being implemented – or if it has been determined that control methods are not feasible – PPE is required whenever there are hazards that can do bodily harm through absorption, inhalation, or physical contact. This equipment includes respiratory and hearing protective devices, special clothing, and protective devices for the eyes, face, head, and extremities. All PPE will be of a safe design and constructed for the work to be performed, and maintained in a sanitary and reliable condition.

Eye protection is required when a possibility of injury from chemicals or flying particles exists. Examples of operations requiring the use of eye protection include:

- Chipping, grinding, and impact drilling.
- Welding or helping in welding of any type.
- Cleaning with compressed air.
- Tinning or soldering lugs or large joints.
- Riveting, grinding, or burning metals.
- Handling chemicals, acids, or caustics.

Face shields will be thoroughly washed with soap and water before being worn by another person.

Appropriate hearing protection will be used where employees are in designated hazardous noise areas with operating noise sources or using tools or equipment which are labeled as hazardous noise producers. The Safety Coordinator will be contacted for noise level surveys and guidance on the type of hearing protection required.

Rubber protective gloves will be worn by personnel working in battery shops or where acids, alkalis, organic solvents, and other harmful chemicals are handled.

Electrical workers' gloves are designed and will be used to insulate those workers from shock, burns, and other electrical hazards. These gloves will not be the only protection provided and will never be used with voltages higher than the insulation rating of the gloves.

Multi-use gloves will be worn to protect the hands from injuries caused by handling sharp or jagged objects, wood, or similar hazard-producing materials. These gloves are usually made of cloth material with chrome leather palms and fingers or synthetic coating. All-leather gloves are also acceptable.

General Shop and Work Area Safety

Non-skid shoes will be worn where floors may be wet or greasy. Where there is reasonable probability of foot or toe injury from impact and compression forces, safety footwear will be worn.

Various airborne hazards exist that personnel may encounter, and respiratory protection may be required. The Safety Coordinator will be consulted for guidance on the type of protection required.

Hard hats will be worn by all personnel working below other workers and in areas where sharp projections or other head hazards exist.

Natural or synthetic rubber or acid-resisting rubberized cloth aprons will be worn by personnel handling irritating or corrosive substances. Aprons will normally be worn with acid sleeves and gloves for greater body protection against skin injuries.

Insulating matting will be used by workers for additional resistance to shock where potential shock hazards exist, such as areas where floor resistance is lowered due to dampness; areas where high voltages (above 600 volts) may be encountered; or areas with electrical repair or test benches.

Shop supervisors will ensure that shop personnel use the protective clothing and equipment that will protect them from hazards of the work they perform. It is the responsibility of workers to keep their PPE in a clean, sanitary state of repair and use the equipment when required.

Workers will keep their hands and face clean; change clothes when they are contaminated with solvents, lubricants, or fuels; and keep their hands and soiled objects out of their mouths. No food or drink will be brought into or consumed in areas exposed to toxic materials, chemicals, or shop contaminants. Workers will wash their hands before eating or smoking after exposure to any contaminant.

Workers will not wear rings, earrings, bracelets, wristwatches, or necklaces in the vicinity of operating machinery and power tools. Additionally, long full beards, unrestrained long hair, and loose clothing can become caught in tools or machinery and cause serious personal injury. Highly combustible garments or coveralls made of material such as nylon will not be worn in or around high temperature equipment or operations such as boiler operations, welding, or any other work with open-flame devices.

Facility Layout

Proper layout, spacing, and arrangement of equipment, machinery, passageways, and aisles are essential for orderly operations and avoiding congestion.

Equipment and machinery will be arranged to allow an even flow of materials. Sufficient space should be provided to handle the material with the least possible interference from or to workers or other work being performed. Machines should be placed so it is not necessary for an operator to stand in a passageway or aisle. Additionally, machine positioning should allow for easy maintenance, cleaning, and removal of scrap. Clear zones will be established and should be of sufficient dimensions to accommodate typical work. Marking of machine clear zones may be yellow or yellow and black hash-marked lines, two to three inches wide. Machines designed for fixed locations will be securely anchored. If pieces of stock scheduled to be worked exceeds workplace or clear zone floor markings, rope or stanchions may be used to temporarily extend the workplace. Machines with shock mounting pads will be securely anchored and installed according to manufacturer's instructions.

General Shop and Work Area Safety

Passageways or aisles will be provided and marked to permit the free movement of employees bringing and removing material from the shop. These passageways are independent of clear zones and storage spaces. They will be clearly recognizable.

Where powered material handling equipment is used, facility layout will provide enough clearance in aisles, on loading docks, and through doorways to permit safe turns. Aisles will be at least three feet wider than the widest vehicle used or most common material being transported.

Illumination

Adequate illumination will be provided to ensure safe working conditions.

Portable lamps will have UL approved plugs, handles, sockets, guards, and cords for normal working conditions.

For work in boilers, condensers, tanks, turbines, or other grounded locations that are wet or may cause excessive perspiration, a low voltage lighting system should be used either from a battery system or low-voltage lighting unit. In situations where these lighting systems are not available, a vapor-proof 110 volt lighting system will be used.

Flashlights for use near energized electrical equipment and circuitry will have insulated cases.

At least 50 foot-candles of illumination will be provided at all work stations. However, fine work may require 100 foot-candles or more. This can be obtained with a combination of general lighting plus supplemental lighting.

Exits and Exit Markings

Every exit will have "EXIT" in plain legible letters not less than six inches high with the strokes of the letters not less than three-quarters of an inch wide.

Doors, passageways, or stairways which are neither exits nor ways to an exit (but may be mistaken for an exit) will be clearly marked "NOT AN EXIT" or by a sign indicating their actual use (for example: "STORAGE ROOM" or "BASEMENT").

When the direction to the nearest exit may not be apparent to an occupant, an exit sign with an arrow indicating direction will be used.

Exit access will be arranged so it is unnecessary to travel toward any area of high hazard potential in order to reach the nearest exit unless the path of travel is effectively shielded by suitable partitions or other physical barriers.

Exit signs will be clearly visible from all directions of escape and will not be obstructed at any time. If occupancy is permitted at night, or if normal lighting levels are reduced at times during working hours, exit signs will be suitably illuminated by a reliable light source.

A door from a room to an exit or to a way of exit access will be the side-hinged swinging type. It will swing out in the direction of travel if fifty or more persons occupy the room or the exit is from an area of high hazard potential.

Areas around exit doors and passageways will be free of obstructions. The exit route will lead to a public way. No lock fastening device will be used to prevent escape from inside the building.

General Shop and Work Area Safety

Where occupants may be endangered by the blocking of any single exit due to fire or smoke, there will be at least two means of exit remote from each other.

Exits, exterior steps, and ramps will be adequately lighted to prevent mishaps. Separate lighting will not be required if street or other permanent lighting gives at least one foot-candle of illumination on the exit, steps, or ramp.

Housekeeping

Good housekeeping will be maintained in all shops, yards, buildings, and mobile equipment. Supervisors are responsible for good housekeeping in or around the work they are supervising. As a minimum:

Material will not be placed where anyone might stumble over it, where it might fall on someone, or where it may rest on or against any support unless the support can withstand the additional weight.

Aisles and passageways will be kept clear of tripping hazards.

Nails will be removed from loose lumber or the points turned down.

Ice will be removed from all walkways and work areas where it may create a hazard or interfere with work to be done. If ice cannot be removed readily, sand or other approved materials will be applied.

Trash and other waste materials will be kept in approved receptacles. Trash will not be allowed to accumulate and will be removed and disposed of as soon as practicable at least once per shift or more often if needed.

Disconnect switches, distribution panels, or alarm supply boxes will not be blocked by any obstruction which may prevent ready access.

Machinery and equipment will be kept clean of excess grease and oil and, operating conditions permitting, free of excessive dust. Pressure gauges and visual displays will be kept clean, visible, and serviceable at all times. Drip pans and wheeled or stationary containers will be cleaned and emptied at the end of each shift.

Fire Prevention

All shop services personnel will receive fire prevention training as part of their general training.

Supervisors in charge of operations where fuels, solvents, or other flammable liquids are used will be constantly alert for hazards and unsafe acts. Fuels such as gasoline will never be used to clean floors or clothing, and open solvent or gasoline containers will not be kept near electrical equipment. The use of low flashpoint petroleum solvents will be avoided whenever possible. Open flames, open element heaters, equipment not properly grounded, and non-explosion-proof electrical equipment used in the presence of flammable or combustible liquids will be avoided.

Fire extinguishers of at least a 20 BC or greater rating will be installed in shop areas. The number of extinguishers depends upon the size and layout of the facility. Fire extinguishers will meet OSHA requirements by being kept fully charged and in their designated areas; being located along normal paths of travel; not being obstructed or obscured from view; and being visually inspected at least monthly to ensure that they are in their designated places, have not been tampered with or actuated, do not have corrosion or other impairments, are accessible and not obstructed,

General Shop and Work Area Safety

are operable and safe, are hydrostatically sound, and are placed so the maximum travel distance (unless extremely hazardous conditions exist) does not exceed 75 feet for Class A or 50 feet for Class B locations.

Supervisors will ensure that employees remove construction debris and rubbish from the job site upon completion of the job or daily if extended beyond one day. Hazardous materials will not be left at job sites unless properly stored. Work being performed on job sites will not endanger building occupants.

General Shop and Work Area Safety

Material Storage

All unnecessary accumulation of materials and supplies in the shop area will be avoided. The presence of unnecessary material in the shop could cause such incidents as tripping, falling, or slipping. This could be especially hazardous around equipment that is in operation. The only material in the shop area will be that actually being used. The only place materials should accumulate in quantity is in storerooms and material holding areas.

The storage of materials will not create a hazard. Materials stored in tiers will be stacked, strapped, blocked, or interlocked and limited in height so they are stable and secure against sliding or collapse. Storage racks will have sufficient capacity to bear the loads imposed on them.

Stored materials will not obstruct fire extinguishers, alarm boxes, sprinkler system controls, electrical switch boxes, machine operations, emergency lighting, first aid or emergency equipment, or exits.

Heavy materials and equipment should be stored low and close to the ground or floor to reduce the possibility of injury during handling.

All passageways and storerooms will be clean, unobstructed, dry, and in sanitary condition. Spills will be promptly removed.

Where mechanical handling equipment such as lift trucks are used, safety clearance will be provided for aisles at loading docks, through doorways, and wherever turns or passages must be made. No obstructions that could create a hazard are permitted in aisles.

Use of Tools

Hand Tools

Incidents at the job site involving hand tools are usually the result of misuse. Hand tools are precision tools capable of performing many jobs when used properly. Prevention of incidents involving hand tools on the job site becomes a matter of good instruction, adequate training, and proper use.

Hand tool safety requires that the tools be of good quality and adequate for the job. All tools will be kept in good repair and maintained by qualified personnel.

Racks, shelves, or toolboxes will be provided for storing tools which are not in use.

When personnel use hand tools while working on ladders, scaffolds, platforms, or work stands, they will use carrying bags for tools not in use. Workers will not drop tools.

Supervisors will frequently inspect all hand tools used in the operation under their supervision. Defective tools immediately will be removed from service. Some common tool defects include handles, tangs, and mushroomed heads:

Handles

When handles of hammers, axes, picks, or sledges become cracked, split, broken, or splintered, they will be immediately replaced. Tool handles will be well-fitted and securely fastened by wedges or other acceptable means.

General Shop and Work Area Safety

Wedges (always used in pairs) will be driven into the handle when repairing a sledgehammer or maul to prevent the head from accidentally flying off if the handle shrinks.

Tangs

Files, wood chisels, and other tools with tangs will be fitted and used with suitable handles covering the end of the tang. Ends of the handles will not be used for pounding or tapping.

Mushroomed Heads

Cold chisels, punches, hammers, drift pins, and other similar tools have a tendency to mushroom from repeated poundings. They will be dressed down as soon as they begin to crack and curl.

When dressing tools, a slight bevel of about three-sixteenths of an inch will be ground around the head. This will help prevent the heads from mushrooming.

When tool heads mushroom, the material is highly crystallized; with each blow of the hammer, fragments are likely to break off.

Portable Power Tools

Portable power tools increase mobility and convenience but are frequently more hazardous to use than their stationary counterparts. Personnel who are required to use portable power tools in their work will be thoroughly trained in safe operating practices. Safe operating procedures will be set up for each type of tool consistent with the manufacturer's instructions.

Use of Compressed Air Sources

Compressed air has the appearance of a relatively harmless gas. However, to avoid accidents, compressed air must be used correctly. The improper or inadvertent connection of items not designed for shop air pressure to a shop air supply may cause serious personal injury and more than likely will damage the item being connected.

The following rules and practices are suggested to avoid personal injury, equipment damage, and potential environmental impact:

- All personnel assigned to shops with air compressors will be familiar with compressor operating and maintenance instructions.
- Compressed air is not to be used to blow dirt, chips, or dust from clothing.
- Air compressors will be maintained strictly in accordance with the manufacturer's instructions.
- Do not use compressed air to transfer materials from containers when there is a possibility of exceeding the safe maximum allowable working pressure of the container.
- The maximum working pressure of compressed air lines will be identified in psi. Pipeline outlets will be tagged or marked showing maximum working pressure immediately adjacent to the outlet.
- Do not use compressed air to transfer materials from standard 55-gallon drums. Use a siphon with a bulk aspirator on a pump.
- Never use compressed air where particles can be accelerated by the air stream.
- Compressed air used for cleaning must only be permitted with effective chip guarding and personal protective equipment to protect the operator and other employees from the hazards of the release of compressed air and flying debris. Do not use compressed air to clean machinery or parts unless absolutely necessary and only with the proper personal protective equipment, an effective chip guard and air pressure set at no more than 30 p.s.i.
- Never apply compressed air to any part of a person's body.

General Shop and Work Area Safety

- Do not use a compressed air line that does not have a pressure regulator for reducing the line pressure.
- Keep the hose length between tool housing and the air source as short as possible.
- Where possible, attach a short length of light chain between the hose and the housing on air-operated tools. This keeps the hose from whipping should the hose-tool coupling separate.
- Inspect air supply and tool hoses before using. Discard and label unfit hoses. Repair hoses where applicable.
- Turn valves off and vent pressure from a line before connecting or disconnecting it. Never work on a pressurized line.
- Do not connect air supply respirators or supplied-air suits to the compressed air supply system of any building. Such compressed air is unsafe to breathe.
- Do not attach pneumatic tools, process, or control instruments to breathing air lines. The potential contamination to personnel and systems is hazardous.

WARNING: It is dangerous to pressurize any container not designed for that purpose.

Short Service Employee Program

General Policy

The purpose of the Short-Service Employee policy of Altura Engineering and Design is to assure that workers with less than six months experience are identified, adequately supervised, trained, and managed so as to prevent injury to themselves or others, property damage, or environmental harm.

Any worker with less than six months service in the same job/position with Altura Engineering and Design will be considered a short-service employee (SSE). Experienced workers who are new to a location will be considered by the Supervisor or the Safety Coordinator, for inclusion in the SSE program based on the specifics of their assignment.

Factors to consider would include significant differences in:

- Job responsibilities/duties from previous assignments/employers
- Work processes/practices from previous assignments/employers
- Equipment/tools from previous assignments/employers
- Their Skill level, and
- Their Familiarity with co-workers

Short-Service Employee Requirements

All Altura Engineering and Design SSEs, regardless of job function, shall participate in any necessary site-specific orientations before performing work on project locations. These employees must also complete any additional specific training required by their job assignment that is being visited. SSE requirements may also include the following:

- Altura Engineering and Design SSEs will wear a hard hat with a distinctive difference in appearance (color, Stripe, Decal, etc.) whenever they are in the field that will allow quick and sure identification of the SSE by other team members. The method used to identify SSEs should be communicated to the Owner Client. This also serves as a reminder of each person's responsibility for the safety of others. Short Service Employees shall be monitored for compliance with health, safety, and environmental policies and procedures. Once the Short Service Employee has demonstrated competency and compliance with HSE policies and procedures, the contractor may remove the hi-visibility identifier.
- All SSE personnel must be assigned an experienced mentor to assist the employee during his/her SSE period. It is the mentor's responsibility to closely supervise the assigned SSE and prevent him/her from performing tasks for which he/she is not properly trained. A mentor may only be assigned to one crew that includes Short Service Employees, and he/she must remain on site with them. Each SSE's mentor must be designated on the daily Jobsite Hazard Analysis (JSA) forms.
- Formal meetings between the SSE, his/her supervisor and mentor will take place one month and three months after the hire or transfer date (more frequently if necessary). The purpose of these meetings is to provide performance feedback to the SSE and evaluate his/her progress in understanding workplace hazards and Altura Engineering and Design health, environmental, and safety (HES) policies. A final meeting is held at the six-month point to make a formal determination whether the SSE can work without posing a hazard to himself/herself or others. When the supervisor and mentor have agreed to this, employees are removed from the SSE program.
- If concerns remain about the employee's ability to work safely after six months, the supervisor evaluates the situation and develops a forward plan for the employee in consultation with Human Resources. To be removed from SSE status, an employee must exhibit safe behavior for six months (i.e., incident-free performance, proactive participation in HES programs such as incident reporting including near misses,

Short Service Employee Program

Behavior-Based Safety (BBS), Job Safety Analysis (JSA) development, safety meetings) and have a general awareness and working knowledge of Altura Engineering and Design's HES policies. Release from SSE status requires the approval of both the employee's mentor and the supervisor. Documentation should be maintained for a period of one year after an employee has been removed from SSE status.

Working with Experienced Crews

Prior to starting work, the contractor shall notify the Owner Client (project coordinator, contractor contact, and/or on-site supervisor) if Short Service Employees are present on work crews.

Because of the nature of SSE status, a single person "crew" cannot be an SSE. Working multiple SSEs on a crew has the potential to increase the risk of crew injuries; therefore: Two to five-person crews can have only one SSE per crew, and crews with six to ten persons or more should not exceed 2 SSEs. Exceptions to these requirements require a plan to mitigate the risks and written approval of the Safety Coordinator. Exceptions for crews with more than 50% SSEs require the approval of the Safety Coordinator, and supervisor. For purposes of this policy, a crew is defined as those workers working at a single location who are employed by Altura Engineering and Design.

Any subcontractors employed by Altura Engineering and Design must manage their Short Service Employees in accordance with the requirements of the above Short Service Employee program.

Subcontractor Management Plan

Purpose

The purpose of this program is to ensure that Altura Engineering & Design, LLC continues to improve subcontractor health, safety and environmental performance and to establish a standard for pre-qualification, evaluation/selection and development of our subcontractors.

Scope

This program applies to all subcontractors and all Altura Engineering & Design, LLC locations.

General Requirements

All Altura Engineering & Design, LLC subcontractors are to be managed in accordance with this program.

The use of subcontractors must be pre-approved by Altura Engineering & Design. Approval requirements include:

- A formal safety review of the subcontractor being performed by Altura Engineering & Design, LLC safety department.
- The scope of the review was commensurate with the hazards and risk exposure.
- Subcontractor has been/will be oriented to the safety policies, expectations and requirements of Altura Engineering & Design, LLC.
- The subcontractor agrees to abide by our Drug and Alcohol policy and onsite safety rules throughout the duration of the work.

Any subcontractor that has a "Non-Approved" safety status will not be used on any Altura Engineering & Design site.

Procedure

Pre-Qualification of Subcontractors

Subcontractors will be pre-qualified by reviewing their safety programs, safety training documents and safety statistics.

Evaluation Safety Metrics

Acceptable safety metrics will be used as criteria for prequalifying and selecting subcontractors. The safety metrics and scoring will consider:

- Altura Engineering & Design, LLC Subcontractor Safety Pre-Qualification Form responses and subcontractor safety program documents review 60% (Rated from 0-60 total points)
- Subcontractor safety training documents review 20% (Rated from 0-20 total points)
- Subcontractor safety statistics review 20% (Rated from 0-20 total points)

Evaluation Rating and Acceptance

The subcontractor rating system will have five designations:

- Equal to or Greater than 90 points = A – no restrictions.
- Between 85 and 89 points = B – Mitigation plan must be documented and approved by Altura Engineering & Design, LLC Safety.
- Between 81 and 84 points = C – Mitigation plan must be documented and approved by Altura Engineering & Design, LLC Safety; management approval in writing.

- Between 71 and 80 points = D – Mandatory commitment meeting with senior subcontractor management present; mitigation plan documented and approved by Altura Engineering & Design, LLC Safety; management approval in writing; trained subcontractor safety personnel on site during work regardless of number of workers.
- Less than 70 points = F – not to be used.

Once each subcontractor has been evaluated and scored, Altura Engineering & Design safety will provide management the scores/ranking.

Altura Engineering & Design, LLC reserves the right to change a subcontractor's status to "Non-Approved" if the subcontractor shows insufficient progress towards accepted mitigation plan or other agreed upon criteria.

Subcontractor Involvement

Contractors are required to follow or implement the work practices and systems described below while performing work at Altura Engineering & Design, LLC worksites:

- Attend a safety orientation, pre-job meeting or kick-off meeting provided by Altura Engineering & Design, LLC prior to any work beginning
- Monitor employees for substance abuse and report nonconformities to ALTURA ENGINEERING & DESIGN, LLC.
- Ensure personnel have the required training and competency for their work
- Participate in Altura Engineering & Design, LLC tailgate safety meetings, job safety analysis or hazard assessments and on the job safety inspections.
- Perform a pre-job safety inspection that includes equipment
- Participate in the BBS hazard reporting system (Behavior Based Safety)
- Report all injuries, spills, property damage incidents and near misses
- Comply with onsite and Owner Client safety rules
- Implement Altura Engineering & Design, LLC safety practices and processes as applicable
- Clean up and restore the worksite after the job is over
- Ensure compliance with regulations at all times
- Post job safety performance reviews shall be conducted for subcontractors.

SUBCONTRACTOR SAFETY PRE-QUALIFICATION FORM			
GENERAL INFORMATION			
1. Subcontractor Information:			
Subcontractor Name:		Telephone Number:	
Street Address:		Fax Number:	
City:		Website Address:	
Province/State:		Postal Code/Zip:	
2. Officers			
President:			
Vice President:			
Treasurer:			
3. How many years has your organization been in business under your present firm's name?			
4. Parent Firm Name:			
City:	Province/State:	Postal Code/Zip:	
Subsidiaries:			
5. Under current management since (Date): (please enter date as mm/dd/yyyy)			
6. Contact for Insurance Information:			
Title:	Telephone:	Fax:	Email:
7. Insurance Carrier(s):			
Name	Type of Coverage	Telephone	
8. Worker's Compensation Account Status (Please enclose a copy of your workers' compensation insurance certificate.)			
Account Number:		Industry Code:	
9. Contact for requesting bids:			
Title:	Telephone:	Fax:	Email:
10. Contractor Evaluation form completed by:			
Title:	Telephone:	Fax:	Email:

The insurance requirements are as follows:

- Evidence all coverage has been placed with carriers rated not less than A-, and show complete insurance carrier names as they appear in the AM Best Property & Casualty Guide, or list the AMBest and NAIC numbers.
- List complete policy numbers. Binders are acceptable for 60 days.
- State that Altura Engineering & Design, its subsidiaries and affiliates and their respective officers, directors, employees, agents and representative are included as Additional Insured and certificate holders are granted a Waiver of Subrogation on all policies. Any required endorsements must be provided.
- Name Altura Engineering & Design, its subsidiaries and affiliates and their respective officers, directors, employees, agents and representatives as Certificate Holder.
- Worker's Comp, when required, must meet or exceed the required Statutory limits of your state. Please indicate this to be true on your certificate by marking the 'Statutory' box. Please note that for the following states, a separate certificate from your State Worker's Compensation Fund is required: North Dakota, Ohio, Washington and Wyoming.

If appropriate, please complete the following section and return this form to the address shown on the front of this notice.

AED

Name _____ Business _____

My Company Is no longer doing business with Altura Engineering & Design, LLC.

Automobile- My company has no company-owned autos.

Workers' Compensation- I certify that my company has not employees that fall within the jurisdiction of any state (s)

Workers' compensation Laws in which work is to be performed.

Authorized Signature _____ Date _____

Printed Name _____ Title _____ Phone Number _____

Also, as needed, please complete or correct the following information and return with your certificate:

Your Email Address: _____ Your Agent's Email Address: _____ Your Telephone #: _____ Your Agent's Telephone #: _____
Your Fax #: _____ Your Agent's Fax #: _____

Subcontractor Management Plan

HEALTH, SAFETY AND ENVIRONMENTAL PERFORMANCE

Provide the following data for your firm using your record keeping forms from the past three (3) years. If the data is not available, please reply with Not Available-N/A

Safety Performance Definitions and Guidance

Hours Worked- Employee hours worked last three years. Please report actual scheduled total hours worked and total overtime hours worked. If actual hours worked are not available for certain individual hours worked may be estimated. A default of 2000 hours per individual per year can be used as an estimate.

Recordable Incidents- Recordable cases are those that involve any work-related injury or illness, including, death but excluding first-aid injuries.

Lost Workday Cases- A lost workday case is a medical case that involves fatalities, days away from work cases or restricted work activity cases.

Days Away from Work Case- Where the employee is away from scheduled work day one day or more after the day of a work-related injury or illness. The day of the incident does not count as lost workday. Sop count when total days away and restricted duty days reach 180 or employee leaves the firm.

Restricted Work Activity Case-Where the employee as result of work-related injury or illness:

Assigned to another job on a temporary or permanent basis or

Worked at their permanent job less than a full day

Could not perform routine functions associated with their permanent job

The day of the incident is not counted as a Restricted Duty day. The count stops when total days away or restricted duty days reach 180 or if employee leaves the firm.

Motor Vehicle Incident- A motor vehicle is any mechanically or electrically powered devices (excluding one moved by human power), upon which or by which any person or property may be transported upon a land roadway.

Motor Vehicle Incident- Includes any event involving a motor vehicle that is owned, leased or rented by the firm that results in death, injury or property damage unless the vehicle is properly parked.

Health and Safety Incidents	2019	2020	2021
a. Total Hours worked			
b. Total Recordable Incidents # Fatalities # Medical Aids # Days Away from Work cases # Restricted Work Activity Cases			
c. Total Recordable Incident Rate (TRIR) Total # recordable Incidents x 200,000 Total # Hours worked			
d. Lost Workday Cases (LWC) # Fatalities # Days Away from Work Case # Restricted Work Activity Case			
e. Lost Workday Incident Rate (LWDR) Total # Lost Workday Incidents x 200,000 Total # Hours Worked			
f. Motor Vehicle Incidents (MVI) # Motor Vehicles Incidents # Miles driven			
g. Motor Vehicle Incident Frequency Rate (MVIFR) Total # of Firm's Motor Vehicle Incidents x 1,000,000 Total # miles driven			

Subcontractor Management Plan

Environmental Incidents	2019	2020	2021
Total # Spills to Water a. Petroleum Spills # spills Sheen (est. volumes as 0.1 To < 1bbl. # spills 1 bbl. To < 100 bbls. # spills 100 bbls. Or more b. Chemical Spills # spills to 1 bbl./160 kg. to <100 bbls./16,000 kg. # spills 100 bbls./16,000 kg. or more.			
Total # Spills to Land a. Petroleum spills # spills 1 bbl. To < 100 bbls. # spills 100 bbls. or more b. Chemical Spills # spills 1 bbl./160 kg to < 50 bbls./8,000 kg # spills 50 bbls./8,000 kg. or more			
Enforcement Actions			
Citations # Health and Safety # Environmental Please provide details			
Fines Total # fines Total \$\$ Paid Please provide details			
Highest ranking HSE professional in the firm: Name/Title:	Telephone Numbers:	Email:	
Do you have a written Basic Safety / HSE Program?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Does your Basic Safety/HSE Program include the following? a. HSE Policy statement signed by management b. Management Involvement and Commitment c. Hazard Identification and Risk Control d. Rules and Work Procedures e. Training f. Communications g. Incident and Accident Reporting and Investigation	Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/>	No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>	

Subcontractor Management Plan

Does the program include work practices and procedures such as?		
a. Permit to Work including Isolation of energy	Yes <input type="checkbox"/>	No <input type="checkbox"/>
b. Confined Space Entry	Yes <input type="checkbox"/>	No <input type="checkbox"/>
c. Injury and Illness Recording	Yes <input type="checkbox"/>	No <input type="checkbox"/>
d. Fall Protection	Yes <input type="checkbox"/>	No <input type="checkbox"/>
e. Personal Protective Equipment	Yes <input type="checkbox"/>	No <input type="checkbox"/>
f. Portable electrical/Power Tools	Yes <input type="checkbox"/>	No <input type="checkbox"/>
g. Motor Vehicle/Driving Safety	Yes <input type="checkbox"/>	No <input type="checkbox"/>
h. Compressed Gas Cylinders	Yes <input type="checkbox"/>	No <input type="checkbox"/>
i. Electrical Equipment Grounding assurance	Yes <input type="checkbox"/>	No <input type="checkbox"/>
j. Powered Industrial vehicles (Cranes, Forklifts, Etc.)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
k. Housekeeping	Yes <input type="checkbox"/>	No <input type="checkbox"/>
l. Accident/Incident Reporting and Investigations	Yes <input type="checkbox"/>	No <input type="checkbox"/>
m. Unsafe condition Reporting	Yes <input type="checkbox"/>	No <input type="checkbox"/>
n. Emergency Preparedness, Including Evacuation Plan	Yes <input type="checkbox"/>	No <input type="checkbox"/>
o. Waste Disposal and Pollution Prevention	Yes <input type="checkbox"/>	No <input type="checkbox"/>
p. Regular Workplace Inspection / Audits	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do you have a drug and Alcohol program?		
a. Pre-employment Testing	Yes <input type="checkbox"/>	No <input type="checkbox"/>
b. Reasonable Cause Testing	Yes <input type="checkbox"/>	No <input type="checkbox"/>
c. Post-rehabilitation/Return to Work Testing	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do you have a Job Safety Analysis (JSEA) process in place?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is there a Root Cause Analysis process used for investigations, near misses, environmental spills?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is there a Management of Change (MOC) Process in place?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do you have programs for the following?		
a. Respiratory Protection	Yes <input type="checkbox"/>	No <input type="checkbox"/>
b. Where applicable, have employees been:		
➤ Trained	Yes <input type="checkbox"/>	No <input type="checkbox"/>
➤ Fit tested	Yes <input type="checkbox"/>	No <input type="checkbox"/>
➤ Medically approved	Yes <input type="checkbox"/>	No <input type="checkbox"/>
c. Hazard communication/WHMIS	Yes <input type="checkbox"/>	No <input type="checkbox"/>
d. Programs for potential high hazard work such as Highly Hazardous Chemicals; Explosives and Blasting Agents	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do you have a corrective action process for addressing individual/employee safety and health performance deficiencies?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Medical		
Do you have personnel trained to perform first aid and CPR?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Personal Protective Equipment (PPE)		
a. Is applicable PPE provided for employees?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
b. Do you have a program to assure that PPE is inspected and maintained?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Subcontractor Management Plan

HSE Meetings			
Do you hold site HSE meetings for? <ul style="list-style-type: none"> • Field Supervisors <input type="checkbox"/> • Employees <input type="checkbox"/> • New Hires <input type="checkbox"/> • Subcontractors <input type="checkbox"/> 	Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/>	No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>	Frequency
Inspections and Audits			
a. Do you conduct internal HSE inspections? b. Do You conduct internal HSE program audits? c. Are corrections or deficiencies to internal HSE program or equipment communicated and documented until closure?	Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/>	No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>	
Equipment and Materials			
a. Do you own or lease Equipment and Materials? If yes, please complete the following questions: b. Do you have a system for establishing applicable health, safety, and environmental specifications for acquisition of materials and equipment? c. Do you conduct inspections on operating equipment (e.g., cranes, forklifts) in compliance with regulatory requirements? d. Do you maintain operating equipment in compliance with regulatory requirements? e. Do you maintain the applicable inspection and maintenance certification records for operating equipment? f. Do you document corrections or deficiencies from equipment inspections and maintenance?	Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/>	No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>	
Subcontractor Management			
a. Do you subcontract any work? If the answer is yes, please complete the following questions: b. Do you have a written contractor safety management process c. Do you use HSE performance criteria in selection of subcontractors?	Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/>	No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>	

Subcontractor Management Plan

<p>d. Do you evaluate the ability of subcontractors to comply with applicable HSE requirements as part of the selection process?</p> <p>e. Do your subcontractors have a written HSE Program:</p> <p>f. Do you include your subcontractors in:</p> <ul style="list-style-type: none"> ➤ HSE Orientation ➤ HSE Meetings ➤ HSE Equipment Inspections ➤ HSE Program audits ➤ Are corrections or deficiencies documented? 	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>		
Employee and Trades Training				
<p>a. Have employees been trained in appropriate job skills?</p> <p>b. Are employees Job skills certified where required by regulatory or industry consensus standards?</p> <p>c. List trades/crafts which have been certified</p>	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>		
Health, Safety and Environmental Orientation				
<p>a. Do you have an HSE Orientation Program for new hires and newly hired or promoted supervisors?</p> <p>b. Does the program provide instruction on the following:</p> <ul style="list-style-type: none"> ➤ New worker orientation ➤ Safe Work Practices ➤ Safety Supervision ➤ Toolbox meetings ➤ Emergency Procedures ➤ First Aid Procedures ➤ Fire protection and Prevention ➤ Safety Intervention ➤ Hazard Communication/WHMIS 	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>
Health, Safety and Environmental Training				
<p>a. Do you know the regulatory HSE training requirements for your employees?</p> <p>b. Have your employees received the required HSE training and re-training</p> <p>c. Do you have a specific HSE training program for supervisors?</p>	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>		
Training records				
<p>a. Do you have HSE and training records for your Employee's?</p> <p>b. Do the training records include the following:</p> <ul style="list-style-type: none"> ➤ Employee identification ➤ Date of training ➤ Name of trainer ➤ Method used to verify understanding 	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>		

Fitness for Duty Policy

Purpose

To establish Altura Engineering and Design's expectations for an employee's fitness for duty.

Scope

This policy affects and applies to all Altura Engineering and Design employees.

Policy

- It is the goal of Altura Engineering and Design to provide a safe workplace for all employees. To accomplish this goal, Altura Engineering and Design has adopted the following fitness for duty policy:
- Employees shall receive training specific to their assigned task. The training will be provided by personnel deemed qualified by Altura Engineering and Design, such as supervisors, management, or third-party resources. The employee's level of competency for the task being performed shall be evaluated in accordance with the established Short Service Employee (SSE) policy.
- All employees are expected to be physically and mentally fit to perform their jobs in a safe manner at all times. If you are not able to safely perform your job due to fatigue or any other condition, or you are taking any medication that might affect your ability to do your job, you are to inform your supervisor immediately.
- When allowed and required by regulation, pre-employment physicals will be included in the hiring process, and also when changing into certain job functions and different environments to ensure that employees are physically capable of performing their job function.
- All employees must follow established safe work procedures required by our clients and Altura Engineering and Design.
- Employee's activities and behaviors shall be monitored to determine if the employee is fit for duty or should be removed from the work site. If a supervisor believes you are not fit to perform your duties, you may be sent home, relieved of certain duties, assigned to different duties, assigned to light duty, requested to take a medical examination, or asked for an explanation.
- In accordance with the consent, you signed when employed, you may be requested to undergo a random medical examination to determine your fitness for duty upon hire, or when there is a change in certain job functions or environments.
- All employees shall be subject to drug and alcohol screening as outlined in Altura Engineering and Design's Drug-Free Workplace Policy. Drug and alcohol screening will include pre-employment, post-accident, suspicion, and random screening. Drug screening will be conducted as prescribed by Non-D.O.T. regulations, when applicable.
- Any employee who refuses to cooperate with a determination of whether he or she is fit for duty will be subject to corrective action, up to and including termination.
- If you are not fit for duty, you may be eligible for benefits, such as vacation, leave, unpaid FMLA, workers' compensation, group health care, or others. If you are not able to perform some duties but can perform others, an attempt may be made to reasonably accommodate your restricted activity.
- This policy will be interpreted and applied so as to conform to applicable law, including the Americans with Disabilities Act and the Family Medical Leave Act.
- A written request for reasonable accommodation must be provided by the employee to the supervisor to forward to the human resources manager.

Case Management and Return to Work

Altura Engineering & Design has contracted Axiom Medical to monitor and manage the Injury Case Management for Altura Engineering & Design employees. Altura Engineering & Design will work with Axiom Medical to enable the worker to return to work as soon as practicable after a work-related injury, in either a modified or full duty function as prescribed by the treating medical professional. Altura Engineering & Design will follow the guidance and recommendations provided by Axiom Medical, and the treating medical professionals, in regards to any limitations or restrictions required for the worker's return to work, following a work-related injury.

Administration

The Human Resources Manager will administer this policy.

Process Safety Management (PSM) – Contractor Responsibilities Program

Purpose

The purpose of the Process Safety Management (PSM) program is to prevent or minimize consequences of catastrophic releases of toxic, reactive, flammable or explosive chemicals in various industries such as refineries. The requirements of a PSM program are outlined in 29 CFR 1910.119. The facility's employees will perform work at job sites that are covered by this standard. Therefore, the purpose of this written program is to ensure that employees are trained in the practices necessary to conduct work at PSM-covered work sites and to ensure they abide by the safe work practices of the employers who hire them to perform various jobs.

General

Contractors under the PSM program are those who are involved in the installation or maintenance of equipment and systems at a facility that has one of the following:

- A process which involves a chemical at or above the specified threshold quantities.
- A process which involves a flammable liquid or gas (as defined in 1910.1200) on site in one location in a quantity of 10,000 pounds (4535.9 kg) or more except for:
 - Hydrocarbon fuels used solely for workplace consumption as a fuel (e.g., propane used for comfort heating, gasoline for vehicle refueling), if such fuels are not a part of a process containing another highly hazardous chemical covered by this standard.
 - Flammable liquids stored in atmospheric tanks or transferred which are kept below their normal boiling point without benefit of chilling or refrigeration.

As contractors covered under the PSM program, employees will be provided necessary information concerning the hazardous processes, equipment, and procedures of the particular job site at which they are working.

Specific Requirements

Prior to allowing this facility's employees to commence work in a process covered under PSM, the following requirements must be completed by the PSM company:

- Obtain and evaluate information regarding the facility's safety performance and programs (written documentation required).
- Inform this facility's Site Foremen or other designated facility employees of the known potential fire, explosion, or toxic release hazards related to the work area and processes of the company.
- Explain the applicable provisions of the emergency action plan to this facility's employees.
- Provide the Site Foremen with copies of local safety programs, safety and emergency procedures and a copy of the PSM program.
- Complete all the requirements of the company's Contractors Liability Agreement.
- Inform this facility that a periodic performance evaluation will be conducted to ensure that employees are fulfilling their obligations.
- Inform this facility that a contract employee injury and illness log related to work in process areas must be maintained on site for the duration of the contract work.

This facility will provide information to the contract employer relating to any unique hazards presented by employees' work or any hazards found by employees.

Process Safety Management (PSM) – Contractor Responsibilities

Training

Prior to the start of any work at a facility covered under the PSM standard, this facility will assure that each employee is trained in the work practices necessary to safely perform his or her job. This facility will provide the following documentation to each PSM covered facility at which work is performed:

- The safety program information and other documentation required by the company's Contractors Liability and Safety Agreement.
- The PSM Facility's Management of Change procedures and processes for job task or processes that create additional hazards and are not stated and/or approved in the PSM.
- Certification that this facility has informed employees of potential fire, explosion, or toxic release hazards may that exist at or near their work area at the facility, and that this facility has explained the company's Emergency Action Plan to its employees.
- Safety Data Sheets will be used to discuss process safety information for the particular site at which this facility's employees will work.
- Training documentation concerning training provided to employees to ensure they understand the safe work practices necessary to safely perform tasks.
- Certification that this facility has explained the Hot Works Permit Program of the company for which this company's employees are working and other permits the company uses that will be needed during their time on company property.
- Agreement to advise the company for which this company's employees are working of any unique hazards presented by work and found during work.
- Certification that materials, parts and equipment to be installed meet industry and engineering standards for the application used.

This facility will assure that its employees have been instructed in known potential fire, explosion, or toxic release hazards related to his/her job and the applicable provisions of the emergency action plan. The Site Foreman will be responsible for ensuring that each employee has received and understands the required training. Training will be documented and will consist of the employee's name, the date of training, and the means used to verify that the employee understood the training.

Safe Work Practices

This facility's employees will be required to abide by PSM employer's safety work practices during operations such as lockout/tag out, confined space entry, opening process equipment or piping, and controls over entrance to the facility. Safe work practices will be covered during site-specific training courses. Training will be documented. The contract employer shall assure that each contract employee is trained in the work practices necessary to perform his/her job.

Hot Work

Before cutting or welding is permitted at a work site, the area must be inspected by the individual responsible for authorizing cutting and welding operations at the company for which this facility is working. This facility's employees will not be allowed to perform hot work until a hot work permit is obtained from the employer's designated representative. The permit shall document that provisions of CFR 1910.252 (a) have been met. See the Hot Work written program for more information about safe work practices.

Management of Change

The PSM employer shall establish and implement written procedures to manage changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures; and, changes to facilities that affect a covered process. The procedures shall assure that the following considerations are considered prior to any change: the technical basis for the change, the impact on safety and health, modification to operating procedures, necessary time period for the change, and authorization requirements for the change.

Process Safety Management (PSM) – Contractor Responsibilities

Altura Engineering and Design employees shall follow the PSM requirements of the facility, including the procedures and processes for Management of Change. Employees whose job tasks will affect, or be affected by, a change in the process, shall be informed of, and trained in, the change prior to start-up of the process or affected part of the process.

Incident Investigations

Employees must immediately report all accidents, injuries and near misses to their Site Foreman who will then notify the correct company individuals. An incident investigation must be initiated within 48 hours. Resolutions and corrective actions must be documented and maintained for five years.

Trade Secrets

This facility's employees must respect the confidentiality of trade secret information when any Process Safety Information is released to them.

Fatigue Management

Purpose

To ensure our employees recognize the effect of fatigue as related to safely being able to perform work and to establish guidelines for work hours and equipment to reduce fatigue in our business and at our client locations.

Scope

This program applies to all Altura Engineering & Design, LLC (Altura) projects and operations.

Policy

The guiding principles of fatigue management shall be incorporated into the normal management functions of the business and include the following:

- Employees must be in a fit state to undertake work
- Employees must be fit to complete work
- Employees must take minimum periods of rest to safely perform their work

These principles will be managed through:

- The appropriate planning of work tasks, including driving, vehicle and equipment maintenance, loading and unloading and other job-related duties and processes
- Providing appropriate equipment to help reduce stress and fatigue
- Regular medical checkups and monitoring of health issues as required by legislation
- The provision of appropriate sleeping accommodations where required
- Ongoing training and awareness of employee health and fatigue issues

Roles and Responsibilities

The following addresses the roles and responsibilities of workers to report tiredness/fatigue to supervision and that supervision take appropriate action to assist the worker.

Altura Management

- Management accepts responsibility for the implementation of this fatigue management policy.
- Management is responsible for the implementation and maintenance of this program.

Roles and Responsibilities of Employees

- Employees need to be rested prior to starting work.
- Employees need to monitor their own performance and take regular periods of rest to avoid continuing work when tired.
- Employees must present in a fit state free from alcohol and drugs
- Employees must not chronically use over-the-counter, prescription drugs and any other product which may affect an employee's ability to perform their work safely, including fatigue that sets in after the effects of the drug wear off.
- Employees shall report tiredness/fatigue and lack of mental acuity to supervision and supervisory personnel shall make safety critical decisions and take appropriate actions to prevent loss including replacement of tired employees, changing schedules or forcing work stoppages.

Work Hour Limitations to Control Fatigue and Increase Mental Fitness

Altura will set work hour limitations and manage work schedules to control fatigue, allow for sufficient sleep and increase mental fitness.

1. No Workers shall work more than:
 - a. 14 hours per day. In cases where the maximum daily work hours may be exceeded, the supervisor shall develop an individual plan which:
 - i. Assesses the personal travel situation for the individual(s) following completion of work and the need for alternate arrangements
 - ii. Ensures individual(s) have adequate rest prior to returning to work
 - b. 12 Days Continuous. If this limit is reached, a minimum 36-hour rest period is required before returning to work
2. For activities outside the normal (client facility shutdowns or turnarounds, special projects), the supervisor shall conduct a risk assessment to ensure adequate controls are in place to manage fatigue.

Analysis of Work Tasks to Control Fatigue

Work tasks to control fatigue must be analyzed and evaluated periodically. Altura will make any necessary changes to equipment, training or procedures based on the evaluation.

Initial and Annual Training for Workers on Fatigue and Controlling Fatigue

Altura is committed to ensuring that all employees are competent to perform their tasks and must provide initial and annual training on how to recognize fatigue, how to control fatigue through appropriate work and personal habits and reporting of fatigue to supervision. Training shall include the following topics:

- Basic sleep, circadian & fatigue physiology
- Recognizing signs of fatigue and symptoms of sleep disorders
- Sleep & alertness strategies
- Supervisor training covering how to detect fatigue

A record of individual fatigue training will be maintained.

Heat Illness Prevention Plan

Purpose

The Heat Illness Prevention Plan establishes procedures and provides information which is necessary to ensure that workers are knowledgeable in the prevention and recognition of heat stress to ensure their own safety and the safety of others.

It is the policy of Altura Engineering and Design to prevent heat illnesses among our employees. To accomplish this objective, the following policy and procedures have been established.

Supervisors and employees will recognize safety and health hazards of working in high heat, factors that increase the risk of heat-related illness, signs and symptoms of illness, first aid, and preventive measures that decrease the risk of heat-related illness.

Supervisors Must:

1. **Monitor Temperature:** Monitor employees and take actions to reduce heat illness risk when temperatures approach 80°F. At temperatures above 90°F, heat risk reduction needs to be a major concern.
2. **Provide Fresh Water Daily:** All employees who work in a hot environment will be provided with water adequate to prevent dehydration and heat illness. This will be accomplished by assuring that piped, potable drinking water is available in or near all fixed facility work sites. In work areas where piped, potable drinking water is not available, sanitary portable containers (5 gallons or larger) containing cool potable drinking water will be provided and checked regularly to ensure availability of drinking water. Containers will be cleaned and sanitized on a regular basis; damaged containers should be replaced. Employees are encouraged to consume one cup of water every 15-20 minutes during periods of severe or extreme heat.
3. **Establish Means of Providing Shade:** Employees suffering from heat illness, or feeling that a preventative recovery period is needed, must be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than 5-minutes. For employees working outside, access to shade must be permitted at all times. Sitting in a vehicle or piece of equipment is not acceptable, unless the air conditioner is providing cool, forced air. A designated area, which allows for shade, should be established at all job site locations.
4. **Enforce Rest Breaks:** All employees must adhere to mandatory rest breaks.
5. **Supervisor Training:** All supervisors will receive training on Heat Illness Prevention, how to recognize those illnesses, and the proper first aid for each illness prior to supervising any employees. Supervisors should also learn the appropriate methods for seeking emergency medical assistance. Supervisors will be trained in the factors that can make employees more susceptible to heat illness and methods to protect the employees when working in a hot environment.
6. **Provide Prompt Medical Attention:** Supervisors must be able to recognize the symptoms of heat illness. Employees displaying serious symptoms of heat illness must receive medical attention, and should be escorted to the nearest designated treatment facility (or call 911).
7. **Provide Employee Training:** All employees must receive training on Heat Illness Prevention, how to recognize those illnesses, and the proper first aid for each illness. Employees will also learn the appropriate methods for seeking emergency medical assistance. Employees will be trained in the factors that can make them more susceptible to heat illness and methods to protect themselves when working in a hot environment.

Educational material will be distributed to employees on an annual basis, in both English and Spanish.

Heat Illness Prevention Plan

Supervisors must incorporate discussion on Heat Illness Prevention during safety meetings on a regular basis during the summer season. Additional training information is provided at the end of this policy:

Record Keeping

Training records will be kept for each employee who attends annual heat illness prevention training. Records of any heat-related illness will be maintained with the employee's medical and/or workers compensation records.

Heat Illness Prevention

Heat related illnesses are avoidable if the employees are trained and the right actions are taken before, during, and after working in either hot indoor or outdoor conditions. High temperatures and humidity can stress the body's ability to cool itself, making heat illness a big concern during hot weather months. Every employee whose job duties require them to work in the outdoors during summer months are exposed to elevated heat conditions and therefore are susceptible to heat illness. The three major forms of heat illnesses are: heat cramps, heat exhaustion, and heat stroke. Heat stroke can be a life-threatening condition. This document will describe the three major forms of heat illness, how to recognize them, and what actions to take to provide first aid before medical care is provided.

The employee's personal contributing factors must be taken in to account when preventing heat illness. An employee's weight, age, and physical fitness, as well as previous instances of heat related illnesses, can directly increase their susceptibility to heat related illnesses. Alcohol consumption prior to a work period can lead to dehydration and other related heat illnesses and should be avoided.

Heat Cramps

Description: heat cramps are the most common type of heat related injury and probably have been experienced by nearly everyone at one time or another. Heat cramps are muscle spasms which usually affect the arms, legs, or stomach. Frequently they do not occur until sometime later after work, at night, or when relaxing. Heat cramps are caused by heavy sweating, especially when water is not replaced quickly enough. Although heat cramps can be quite painful, they usually don't result in permanent damage.

Prevention/First Aid: drink electrolyte solutions such as Gatorade or plenty of water during the day and try eating more fruits such as bananas to help keep your body hydrated during hot weather. Contact your supervisor immediately if a person becomes ill.

Heat Exhaustion

Description: heat exhaustion is more serious than heat cramps. It occurs when the body's internal temperature regulating system is overworked, but has not completely shut down. With heat exhaustion, the surface blood vessels and capillaries, which originally enlarge to cool the blood, collapse from loss of body fluids and necessary minerals. This happens when one does not drink enough fluids to replace what the body is sweating away.

Symptoms Include: headache, heavy sweating, intense thirst, dizziness, fatigue, loss of coordination, nausea, impaired judgment, loss of appetite, hyperventilation, tingling in hands or feet, anxiety, cool moist skin, weak and rapid pulse (120-200 bpm), and low to normal blood pressure.

Prevention/First Aid: the employee suffering these symptoms should be moved to a cool location such as a shaded area or air-conditioned building. Have them lie down with their feet slightly elevated. Loosen their clothing, apply cool, wet towels or fan them. Have them drink water or electrolyte drinks. Try to cool them down, and have them

Heat Illness Prevention Plan

checked by a medical professional. Victims of heat exhaustion should avoid strenuous activity for at least a day, and they should continue to drink water to replace lost body fluids. Immediately contact a supervisor or management, or 911 if the person becomes non-responsive, refuses water, vomits, or loses consciousness.

Heat Stroke

Description: heat stroke is a life-threatening illness with a high death rate. It occurs when the body has depleted its supply of water and salt, and the victim's core body temperature rises to deadly levels. A heat stroke victim may first suffer heat cramps and/or heat exhaustion before progressing into the heat stroke stage, but this is not always the case. It should be noted that, on the job, heat stroke is sometimes mistaken for a heart attack. It is therefore very important to be able to recognize the signs and symptoms of heat stroke - and to check for them anytime an employee collapses while working in a hot environment.

Symptoms Include: a high body temperature ($\geq 103^{\circ}\text{F}$); a distinct absence of sweating (usually); hot red or flushed dry skin; rapid pulse; difficulty breathing; constricted pupils; any/all the signs or symptoms of heat exhaustion such as dizziness, headache, nausea, vomiting, or confusion, and possibly more severe systems including; bizarre behavior; and high blood pressure. Advance symptoms may be seizure or convulsions, collapse, loss of consciousness, and a body temperature of over 108° F .

Prevention/First Aid: it is vital to lower a heat stroke victim's body temperature. Quick actions can mean the difference between life and death. Pour water on them, fan them, or apply cold packs. Call 911 to get emergency medical aid as soon as possible.

Precautions to Prevent Heat Illness

Condition yourself for working in hot environments. Start slowly then build up to more physical work. Allow your body to adjust over a few days (acclimatization).

Assure that adequate water and shade are available at the job site before work begins.

Drink plenty of liquids. Hydration is a continuous process. Don't wait until you're thirsty! By then, there's a good chance that you're already on your way to being dehydrated. Electrolyte drinks are good for replacing both water and minerals lost through sweating, particularly when you are not yet acclimated. Never drink alcohol, and avoid caffeinated beverages like coffee and soda as these liquids can have the opposite effect and can actually increase the level of dehydration.

Take frequent breaks, especially if you notice you're getting a headache or you start feeling overheated.

Wear lightweight, light colored clothing when working out in the sun.

Immediately report all unsafe conditions to your supervisor.

Asbestos Awareness

Purpose

The purpose of this procedure is to advise employees in areas where asbestos is suspected on an awareness level basis about the properties and dangers of asbestos, general guidelines, and training requirements and to provide basic precautions and protections for employees to avoid exposure to asbestos containing material (ACM) or presumed asbestos containing material (PACM).

Scope

This procedure applies to Altura Engineering and Design operations where employees whose work activities may be in the vicinity of asbestos containing materials during their work activities. When work is performed on a non-owned or operated site, the operator's program will take precedence, however, this document covers Altura Engineering and Design employees and contractors and will be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Key Responsibilities

Managers/Supervisors

- Ensure owners or operators are notified of PACM.
- Prohibit Altura Engineering and Design employees from working until material in question is confirmed as non-asbestos or abated.
- Ensure proper employee asbestos awareness training is completed at least once a year.

All Employees

- All employees are required to act in strict compliance with the requirements of this program and delay or discontinue work if there is ever an unresolved concern regarding exposure to asbestos.
- Immediately report any suspected asbestos containing material to their supervisor.

Awareness Level Requirements and Information

Asbestos Exposure Control

Depending on the exposure level Altura Engineering and Design is required to develop and train workers on an Asbestos Exposure Controls Plan.

Background of Asbestos

The word asbestos is derived from a Greek word that means inextinguishable or indestructible. Asbestos is a naturally occurring mineral that is found throughout the world. Asbestos has several characteristics that make it desirable for many commercial uses. The fibres are extremely strong, flexible, and very resistant to heat, chemicals and corrosion. Asbestos is also an excellent insulator and the fibres can be spun, woven, bonded into other materials, or pressed to form paper products. For these reasons and because it is relatively inexpensive asbestos has been widely used for many years and now is found in over three thousand different commercial products.

Exposure to asbestos fibres can cause serious health risks. The major risks from asbestos come from inhaling the fibres. Asbestos is composed of long silky fibres that contain hundreds of thousands of smaller fibres. These fibres

can be subdivided further into microscopic filaments that will float in the air for several hours. Asbestos fibres can easily penetrate body tissues and cause disabling and fatal diseases after prolonged exposure.

Although exposure to asbestos is potentially hazardous, health risks can be minimized. In most cases the fibres are released only if the ACM is disturbed. Intact and undisturbed asbestos materials do not pose a health risk. The mere presence of asbestos does not mean that the health of occupants is endangered. When ACM is properly managed, release of fibres into the air is prevented or minimized, and the risk of asbestos related disease can be reduced to a negligible level. However, asbestos materials can become hazardous when they release fibres into the air due to damage, disturbance, or deterioration over time.

The ability to recognize the kinds of material that contain asbestos, knowing under what conditions they are dangerous, and understanding basic safety precautions, are all important in keeping exposures to a minimum.

Health Effects of Asbestos

The most dangerous exposure to asbestos is from inhaling airborne fibres. The body's defenses can trap and expel many of the particles. However, as the level of asbestos fibres increase many fibres bypass these defenses and become embedded in the lungs. The fibres are not broken down by the body and can remain in body tissue indefinitely. Exposure to asbestos has been shown to cause respiratory diseases such as lung cancer, asbestosis, mesothelioma and various types of cancer of the stomach and colon.

Possible Locations Where Employees May Be Exposed to Asbestos During Their Job Functions

Asbestos materials are used in the manufacture of heat-resistant clothing, automotive brake and clutch linings, and a variety of building materials including insulation, soundproofing, floor tiles, roofing felts, ceiling tiles, asbestos-cement pipe and sheet and fire-resistant drywall. Asbestos is also present in pipe and boiler insulation materials, pipeline wrap and in sprayed-on materials located on beams, in crawlspaces, and between walls.

Client owned and/or operated equipment and facilities, where surfacing material or insulation is present, must be confirmed non-asbestos before Altura Engineering and Design employees disturb that material. Where surfacing material or insulation cannot be confirmed non-asbestos, the client or owner must test, and where necessary abate, the material before Altura Engineering and Design employees are permitted to work.

Types of Asbestos

Asbestos can be defined as friable or non-friable. Friable means that the material can be crumbled with hand pressure and is therefore likely to emit fibres. The fibrous or fluffy sprayed-on materials used for fireproofing, insulation, or sound proofing are considered to be friable and they readily release airborne fibres if disturbed.

Materials such as vinyl-asbestos floor tile or roofing felts are considered non-friable and generally do not emit airborne fibres unless subjected to sanding or sawing operations. Asbestos cement pipe or sheet can emit airborne fibres if the materials are cut, abraded or sawed, or if they are broken during demolition operations.

Identifying Asbestos

There are many substances that workers contact that may contain asbestos and have the potential to release fibres. Only rarely can asbestos in a product be determined from labeling or by consulting the manufacturer. The presence of asbestos cannot be confirmed visually in many cases. The only way to positively identify asbestos is through laboratory analysis of samples. If the presence of asbestos is suspected always assume that it is an asbestos containing material and have it analyzed.

Employees will abide warning signs and labels and will not disturb the asbestos containing material. Signs and labels should identify the material which is present, its location, and appropriate work practices which, if followed, will ensure that ACM and/or PACM will not be disturbed Altura Engineering and Design will ensure that employees working in and adjacent to regulated areas comprehend the warning signs.

General Safety Precautions

The following general precautions will reduce exposure and lower the risk of asbestos related health problems:

- Drilling, sawing, or using nails on asbestos materials can release asbestos fibres and should be avoided.
- Floor tiles, ceiling tiles or adhesives that contain asbestos should never be sanded.
- Use care not to damage asbestos when moving furniture, ladders, or any other object.
- Know where asbestos is located in your work area. Use common sense when working around products that contain asbestos. Avoid touching or disturbing asbestos materials on walls, ceilings, pipes, ducts or boilers.
- All asbestos containing materials should be checked periodically for damage or deterioration. Report any damage, change in condition or loose asbestos containing material to a supervisor.
- All removal or repair work involving asbestos must be done by specially trained personnel.
- Asbestos should always be handled wet to help prevent fibres from being released. If asbestos is soaked with water or a mixture of water and liquid detergent before it is handled, the fibres are too heavy to remain suspended in the air.
- In the presence of asbestos dust above the PEL, the use of a respirator approved for asbestos work (HEPA) is required. A dust mask is not acceptable because asbestos fibres will pass through it.
- Dusting, sweeping, or vacuuming dry asbestos with a standard vacuum cleaner will put the fibres back into the air. A vacuum cleaner with a special high efficiency filter (HEPA) must be used to vacuum asbestos dust.
- If a HEPA vacuum is not used clean-ups must be done with a wet cloth or mop. The only exception to this would be if the moisture presents an additional hazard such as around electricity.

Remember, the mere presence of asbestos itself does not create a health hazard unless the material is disturbed and releases fibres to the atmosphere. Protect yourself and others by being aware of where asbestos is located, the dangers involved and using common sense when working around ACM.

Multiple Contactor Worksites

Altura Engineering and Design does not want our employees exposed by asbestos work being performed by other companies. When working on multi-contractor worksites Altura Engineering and Design employees will be protected from exposure. If employees working adjacent to Class I asbestos jobs are exposed to asbestos due to the inadequate containment of such jobs Altura Engineering and Design will either remove the employees from the area until the enclosure breach is repaired or perform an initial exposure assessment.

Personnel Air Monitoring

Depending on the exposure level Altura Engineering and Design is required to perform air sampling.

Medical Surveillance Program

All Altura Engineering and Design employees who are exposed to asbestos at the regulated will be included in the Altura Engineering and Design medical surveillance program.

- 224 -

Altura Engineering and Design
Reviewed: October 2024

Updated: October 2024

Revised: October 2024

Respiratory Protection

The only circumstances that will necessitate Altura Engineering and Design employees using respiratory equipment for protection against asbestos is during the asbestos exposure assessment process, while confirming (via personnel monitoring) that the engineering controls and work practices designed and employed for a particular work activity are adequate to maintain exposure levels below the PEL/excursion limit. Asbestos work that requires respiratory equipment beyond the PEL should be performed by a qualified contractor.

Waste Disposal

Asbestos waste, scrap, debris, bags, containers, equipment, and contaminated clothing should be collected and disposed of in sealed, labeled impermeable bags of greater than 6 mils thickness or other closed, labeled, impermeable containers.

Training

Asbestos awareness training is required for employees who work in areas that contain or may contain asbestos and Altura Engineering and Design will ensure the training is documented.

Asbestos awareness training is required for employees whose work activities may contact ACM or PACM but do not disturb the ACM or PACM during their work activities.

Subcontractors performing work will comply with the requirements of this standard and all applicable regulatory and environmental regulatory requirements.

Benzene Awareness Program

General

Altura Engineering and Design will ensure that all potential sources of benzene within the facility(s) or host employers are evaluated. This standard practice instruction is intended to address comprehensively the issues of evaluating and identifying potential sources of benzene, evaluating the associated potential hazards at different locations (i.e., paint shop, refining site, field maintenance etc.) communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

Responsibility

The safety coordinator is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The safety coordinator is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

Written Program

Altura Engineering and Design will review and evaluate this standard practice instruction in accordance with the following:

- On an annual basis;
- When changes occur to governing regulatory sources that require a revision;
- When changes occur to related company procedures that require a revision;
- When facility operational changes occur that require a revision;
- When there is an accident or close-call that relates to this area of safety;
- Anytime the procedures fail.

Effective implementation of this program requires support from all levels of management. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of the number of workers employed or the number of work shifts. It is designed to establish clear goals and objectives.

Hazard Overview

Benzene is a clear, colorless liquid with a pleasant, sweet odor. The odor of benzene does not provide adequate warning of its hazard. Benzene can affect your health if you inhale it or if it comes in contact with your skin or eyes. Benzene is also harmful if you happen to swallow it. Routes of entry into the body include inhalation and skin absorption.

Aspiration of small amounts of liquid benzene immediately causes pulmonary edema and hemorrhaging of pulmonary tissue. This poses a serious problem for exposed workers and their employer. Various OSHA Standards establish uniform requirements to ensure that the hazards of toxic and flammable liquids in U.S. workplaces are evaluated, safety procedures are implemented, and that the proper hazard information is transmitted to all affected workers. Benzene affects primarily the respiratory system.

Systemic absorption may cause various blood disorders including, pancytopenia, aplastic anemia, and leukemia. Inhalation and skin absorption of high concentrations can affect central nervous system function.

Benzene is also a highly flammable liquid and vapors may form explosive mixtures in air. Fire extinguishers must be readily available. Smoking is prohibited in areas where benzene is used or stored.

Health Effects

Short-term (acute) overexposure: If you are overexposed to high concentrations of benzene, well above the levels where its odor is first recognizable, you may feel breathless, irritable, euphoric, or giddy. You may experience irritation in eyes, nose, and respiratory tract. You may develop a headache, feel dizzy, nauseated, or intoxicated. Severe exposures to benzene may cause convulsions and loss of consciousness.

Long-term (chronic) exposure: Repeated or prolonged exposure to benzene, even at relatively low concentrations, may result in various blood disorders, ranging from anemia to leukemia, an irreversible, fatal disease. Many blood disorders associated with benzene exposure may occur without symptoms.

DOT Overview

The Department of Transportation regulates Benzene as a flammable liquid. Containers are to be labeled as FLAMMABLE LIQUID, and their transport vehicles are similarly placarded.

General Requirements

Altura Engineering and Design will establish benzene operational procedures through the use of this document.

Facility Evaluation- The employer should evaluate the facility(s) to determine if any work area meets the criteria for designation as a Regulated Benzene Hazard Area.

Regulated Areas- The employer should establish a regulated area wherever the airborne concentration of benzene exceeds or can reasonably be expected to exceed the permissible exposure limits, either the 8-hour time weighted average exposure of 1 PPM or the short-term exposure limit of 5 PPM for 15 minutes.

PPE- Respirators are required for those operations in which engineering controls or work practice controls are not feasible to reduce exposure to the permissible level. You must wear appropriate protective clothing (such as boots, gloves, sleeves, aprons, etc.) over any part of your body that could be exposed to liquid benzene. You must wear splash proof safety goggles if it is possible that benzene may get into your eyes.

Employee Notification and Signage

This employer should post signs at entrances to regulated areas such as no smoking in area. The signs should bear the following legend:

**DANGER
BENZENE
CANCER HAZARD
FLAMMABLE - NO SMOKING
AUTHORIZED PERSONNEL ONLY
RESPIRATOR REQUIRED**

Containers. This employer should ensure that labels or other appropriate forms of warning are provided for containers of benzene within the workplace. There is no requirement to label pipes. The labels should comply with the requirements of 29 CFR 1910.1200 (Hazard Communication Standard) and in addition should include the following legend:

DANGER
CONTAINS BENZENE
CANCER HAZARD

Training

Types of Training. The company will determine whether training required for specific jobs will be conducted in a classroom or on-the-job. The degree of training provided will be determined by the complexity of the job and the benzene exposure hazards associated with the individual job.

Initial Training. Prior to job assignment, the employer will provide training to ensure that the hazards associated with benzene are understood by employees and that the knowledge, skills and personal protective equipment required are acquired by employees. The training will at a minimum include the following:

- Each authorized employee will receive training in the recognition of applicable hazards involved with the particular job and job site, as well as the methods and means necessary for safe work;
- The specific nature of the operation which could result in exposure to benzene;
- The purpose, proper selection, fitting, use and limitation of personal protective equipment (PPE);
- Each authorized employee will be informed where benzene is used in host facility and aware of additional plant safety rules such as but not limited to the contingency plan provisions.

Lead Awareness

This procedure applies to Altura Engineering and Design's operations where employees whose work activities may contact lead containing materials but do not disturb the material during their work activities. When work is performed on a non-owned or operated site, the operator's program will take precedence, however, this document covers Altura Engineering and Design employees and contractors and will be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Purpose

The purpose of this procedure is to advise employees in areas where lead is suspected on an awareness level basis about the properties and dangers of lead, general guidelines, and training requirements. For more information, refer to the Lead procedure for Altura Engineering and Design in this policy.

Responsibilities

Managers and Supervisors

- In coordination with the Safety Manager, develop and implement annual lead awareness training.
- Ensure personnel are aware of work that has the potential of exposure to lead.
- Identify possible locations where lead in the workplace may be found.
- Inform the Safety Manager of upcoming work involving known or suspected lead-containing materials, allowing the Safety Manager to provide any necessary monitoring or other required actions.
- Ensure employees comply with the lead awareness requirements.

Safety Manager

- Coordinate annual lead awareness training activities, as applicable.

Employees

- Comply with the lead awareness requirements and direct any questions or concerns to the Safety Manager.
- Attend required annual training, as applicable.
- Review safety data sheets or consult with the supervisor to identify any container with lead-containing material.

Training

Lead awareness training is required for Altura Engineering and Design employees whose work activities may contact lead containing materials but do not disturb the material during their work activities. Lead awareness training is required at time of hire, during orientation, or before assignment to areas containing lead. Refresher training for affected employees will be provided annually. All training will be documented including dates of training, employee name, and trainer name.

Health Effects of Lead

Common symptoms of acute lead poisoning are loss of appetite, nausea, vomiting, stomach cramps, constipation, difficulty in sleeping, fatigue, moodiness, headache, joint or muscle aches, and anemia. Long term (chronic) overexposure to lead may result in severe damage to the blood-forming, nervous, urinary, and reproductive systems.

- 232 -

Altura Engineering and Design
Reviewed: October 2024

Updated: October 2024

Revised: October 2024

Locations

Each worksite will create a list of possible locations of lead containing materials such as leaded paints, leaded solders, pipes, batteries, circuit boards, cathode ray tubes, leaded glass, and demolition/salvage materials.

The list is to be provided to the Safety Manager on a quarterly basis and revised as lead containing materials are added or eliminated from the previous list.

General Requirements

Each worksite will create a site-specific compliance program. The site-specific compliance program should address means of engineering and work practice controls, air monitoring, a description of each operation in which lead is emitted. The written program must be revised and updated annually.

Employees must abide by any signs/labels/assessment reports indicating the presence of lead containing materials and will not disturb the lead containing material. Appropriate work practices will be followed to ensure the lead containing materials are not disturbed. Regulated access signs are to demarcate the lead exposure regulated work areas. The signs should read as follows:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

General Work Practices

When working on multi-contractor worksites Altura Engineering and Design employees will be protected from exposure. No employee should be exposed to lead at concentrations greater than fifty micrograms per cubic meter of air averaged over an 8-hour period. If employees working immediately adjacent to a lead abatement activity are exposed to lead due to the inadequate containment of such job, Altura Engineering and Design will either remove the employees from the area until the enclosure breach is repaired or perform an initial exposure assessment.

If the initial determination or subsequent air monitoring reveals employee exposure to be at or above the action level but below the permissible exposure limit the employer will repeat air at least every 6 months. The employer will continue air monitoring at the required frequency until at least two consecutive measurements, taken at least 7 days apart, are below the action level at which time the employer may discontinue monitoring for that employee.

Employee's hands and faces should be washed if lead containing materials are contacted. Any possible contact with lead containing material must be reported immediately to the supervisor or Safety Manager.

Lunch room, hygiene, shower, and changing facilities must be provided when exposures are above the PEL.

If air is re-circulated back into the workplace, the system must be equipped with a HEPA (high efficiency particulate air) and backup filter, and a system to monitor the lead level will be installed. Full shift personal samples should be representative of the employee's regular, daily exposure to lead.

When using mechanical means to remove lead-containing paints or coatings, use equipment which is equipped with a HEPA collection system.

Whenever possible, use a wet system to reduce airborne dust.

Whenever possible, substitute lead material with non-leaded material.

Respirators will be used during the time period required to install or implement control if engineering and work practices are insufficient as well as for emergency use.

If respirators are required, they will be NIOSH certified and all employees will follow Altura Engineering and Design Respiratory Protection Program.

When affected employees are exposed to lead, appropriate personal protective equipment, such as gloves, hats, goggles, and disposable shoe covers, will be provided at no cost to the employee.

Employee Notification

Affected employees will be notified of the results of any monitoring performed within 15 working days, either individually in writing or by posting the results in an appropriate location that is accessible to affected employees. Whenever the results indicate that the representative employee exposure, without regard to respirators, exceeds the permissible exposure limit, in the written notice will be included a statement that the permissible exposure limit was exceeded and a description of the corrective action taken or to be taken to reduce exposure to or below the permissible exposure limit.

Medical Surveillance Program

Employees who are or may be exposed above the action level for more than 30 days will be placed in a medical surveillance program. Medical examinations and procedures should be performed by or under the supervision of a licensed physician. The medical surveillance is provided without cost to the employees.

Blood sampling and monitoring should be conducted every 6 months until two consecutive blood samples and analysis are acceptable. The sampling and monitoring should be performed at least monthly during the removal period. Any employee with elevated blood levels should be temporarily removed with Medical Removal Protection benefits. Employees should be notified in writing within five days when lead levels are not acceptable.

Ammonia Awareness Program

Purpose:

To establish awareness for employees who may due to their job responsibilities come in contact with Ammonia.

Definition:

Ammonia (NH₃) is one of the most commonly produced industrial chemicals in the United States. It is used in industry and commerce, and also exists naturally in humans and in the environment. Ammonia is essential for many biological processes and serves as a precursor for amino acid and nucleotide synthesis. In the environment, ammonia is part of the nitrogen cycle and is produced in soil from bacterial processes. Ammonia is also produced naturally from decomposition of organic matter, including plants, animals and animal wastes.

Some Chemical/Physical Properties of Ammonia are:

- At room temperature, ammonia is a colorless, highly irritating gas with a pungent, suffocating odor.
- In pure form, it is known as anhydrous ammonia and is hygroscopic (readily absorbs moisture).
- Ammonia has alkaline properties and is corrosive.
- Ammonia gas dissolves easily in water to form ammonium hydroxide, a caustic solution and weak base.
- Ammonia gas is easily compressed and forms a clear liquid under pressure.
- Ammonia is usually shipped as a compressed liquid in steel containers.
- Ammonia is not highly flammable, but containers of ammonia may explode when exposed to high heat.

Ammonia is Widely Used as Refrigerant in Industrial Facilities such as:

- Meat, poultry, and fish processing facilities,
- Dairy and ice cream plants,
- Wineries and breweries,
- Fruit juice, vegetable juice, and soft drink processing facilities,
- Cold storage warehouses,
- Other food processing facilities,
- Seafood processing facilities aboard ships, and
- Petrochemical facilities.

How can people be exposed to ammonia?

Most people are exposed to ammonia from breathing its gas or vapors. Since ammonia exists naturally and is also present in cleaning products, exposure may also occur from these sources. Lubbock Electric Company employees may specifically be exposed to ammonia while working on or near industrial refrigeration machinery rooms, equipment and piping.

How does ammonia act in the body?

When ammonia enters the body as a result of breathing, swallowing or skin and eye contact, it reacts with water to produce ammonium hydroxide. This chemical is very corrosive and damages cells in the body on contact.

What are the specific signs and symptoms of ammonia poisoning?

Ammonia is corrosive. The severity of health effects depends on the route of exposure, the dose and the duration of exposure. Exposure of the eyes to ammonia may cause burning, tearing, temporary blindness and severe eye damage. Exposure of the skin to ammonia may cause severe burns and blistering. Exposure of the respiratory tract

(mouth, nose and throat) to ammonia may cause runny nose, coughing, chest pain, severe breathing difficulties, severe burns and death.

Swallowing ammonia can cause burns to the mouth, throat and stomach. Skin or eye contact with concentrated ammonia can also cause irritation and burns.

How are employees protected from ammonia exposure?

Employees should be provided with and required to use impervious clothing, gloves, face shields and other appropriate protective clothing necessary to prevent any possibility of skin contact with liquid anhydrous ammonia or aqueous solutions of ammonia containing more than 10% by weight of ammonia. Similar precautions should be taken to prevent the skin from becoming frozen from contact with vessels containing liquid anhydrous ammonia.

What can you do if you think you may have been exposed to a large release of ammonia?

If you have been exposed to a large release of ammonia such as from a tanker truck rollover or from a leaking tanker rail car, take the following steps:

- Quickly move away from the area where you think you were exposed. If the release was indoors, go outside. If you are near a release of ammonia, emergency coordinators may tell you to either evacuate the area or to "shelter in place." To "shelter in place" means to remain indoors to avoid being exposed to the chemical. While indoors, shut and lock all doors and windows; turn off air conditioners, fans and heaters; and close fireplace dampers.
 - Quickly remove any clothing that may have ammonia on it. If possible, clothing that is normally removed over the head (like t-shirts and sweaters) should be cut off the body to prevent additional contact with the agent.
 - Place your clothing inside a plastic bag and seal the bag tightly.
- Do not handle the plastic bag, and wait for instructions on proper disposal. Disposing of your clothing in a sealed bag helps protect you and other people from any additional exposure.
- Store the bagged clothing in a secure location away from people, especially children.
- Quickly wash any ammonia from your skin with large amounts of soap and water, and flush your eyes with large amounts of water.
 - Remove and dispose of contact lenses.
 - Wash eyeglasses with soap and water before wearing.
 - Do not use bleach to remove ammonia from your skin.
- If needed, seek medical attention right away.

How is ammonia poisoning treated?

To reduce the effects from exposure to ammonia, it is important to wash eyes and skin as quickly as possible with large amounts of water.

There is no antidote for ammonia poisoning, but ammonia's effects can be treated, and most victims recover. People who experience serious signs and symptoms (such as severe or constant coughing, or burns in the throat) may need hospital care.

What if an employee is visiting a Customer site?

Employees should be aware of clients' contingency plans and provisions. Employees must be informed where ammonia is used in the host facility and aware of additional plant safety rules.

Stop Work Authority Program

In order to maintain a safe and secure work environment against any risk or exposure to personal harm, this program formally establishes the Stop Work Authority (SWA) of all Altura Engineering and Design employees and contractors to suspend individual tasks or group operations when the control of Health, Safety, and/or Environment (HSE) risks are not clearly established or understood. It is the policy of Altura Engineering and Design that:

- All employees have the authority and obligation to stop any task or operation where concerns or questions regarding the control of health, safety, or environmental concerns exist.
- No work will resume until all stop work issues and concerns have been adequately addressed.
- Any form of retribution or intimidation directed at any individual or contractor for exercising their authority as outlined in this program will not be tolerated.

As with any policy, accountability for non-compliance will follow established company procedures and requirements.

Roles and Responsibilities

Persons in the following roles have responsibilities in support of this program:

- **Employees** are responsible to initiate a “stop work” intervention when warranted, and support the intervention of others and properly report all “stop work” actions.
- **Supervisors** are responsible to create a culture where Stop Work Authority is exercised freely, honor request for “stop work”, work to resolve issues before operations resume, recognize proactive participation and ensure that all “stop work” actions are properly reported with required follow-up completed.
- **Senior Management** must establish the clear expectation to exercise Stop Work Authority, create a culture where Stop Work Authority is exercised freely, resolve Stop Work Authority conflicts when they arise, and hold those accountable that choose not to comply with established Stop Work Authority policies.
- **Safety Coordinator** is responsible for monitoring compliance with the requirements of this program, maintaining associated documents, processes, and training materials, identifying trends, sharing of lessons learned, and notifying of actions if required.

Intervention Protocol

In general terms, the Stop Work Authority process involves a stop, notify, correct, and resume approach for the resolution of a perceived unsafe work action or condition.

Much like behavior-based safety processes, a workforce that clearly understands how to initiate, receive, and respond to a “stop work” intervention is more likely to participate. Though obvious to some, the following protocol creates an environment where people know how to act and respond. When an unsafe condition is identified the Stop Work Intervention will be initiated, coordinated through the supervisor, initiated in a positive manner, affected personnel and supervision of the stop work issue will be notified, the issue will be corrected, and work will resume when safe to do so.

Though situations may differ, the following steps should be the framework for all stop work interventions.

Protocol Instruction

When a person identifies a perceived unsafe condition, act, error, omission, or lack of understanding that could result in an undesirable event, a “stop work” intervention will be immediately initiated with the person(s) potentially at risk.

1. If the supervisor is readily available and the affected person(s) are not in immediate risk, the “stop work” action should be coordinated through the supervisor. If the supervisor is not readily available or the affected person(s) are in immediate risk, the “stop work” intervention should be initiated directly with those at risk.
2. “Stop work” interventions should be initiated in a positive manner by briefly introducing yourself and starting a conversation with the phrase “I am using my Stop Work Authority because....” Using this phrase will clarify the user’s intent and set expectations as detailed in this procedure.
3. Notify all affected personnel and supervision of the stop work issue. If necessary, stop associated work activities, remove person(s) from the area, stabilize the situation, and make the area as safe as possible.
4. All parties will discuss and gain agreement on the stop work issue.
5. If determined and agreed that the task or operation is OK to proceed as is (i.e., the stop work initiator was unaware of certain facts or procedures) the affected persons should thank the initiator for their concern and proceed with the work.
6. If determined and agreed that the stop work issue is valid, then every attempt should be made to resolve the issue to all affected person’s satisfaction prior to the commencement of work.
7. If the stop work issue cannot be resolved immediately, work will be suspended until proper resolution is achieved. When opinions differ regarding the validity of the stop work issue or adequacy of the resolution actions, the location’s “person in charge” will make the final determination. Details regarding differences of opinion and resolution actions should be included in the documented report.
8. Positive feedback should be given to all affected employees regarding resolution of the stop work issue. Under no circumstances should retribution be directed at any person(s) who exercise in good faith their Stop Work Authority as detailed in this program.
9. All stop work interventions and associated detail will be documented and reported as detailed in this program.

Reporting

All “stop work” interventions exercised under the authority of this program will be documented as a near miss utilizing existing reporting protocols. The near miss report will contain the words “STOP WORK” at the beginning of the incident description in order to differentiate it from traditional near miss reports.

“STOP WORK” reports will be reviewed by supervisors in order to:

- Measure participation;
- Determine quality of interventions and follow-up;
- Trend common issues and identify opportunities for improvement;
- Facilitate sharing of lessons learned;
- Feed recognition programs.

The Safety Coordinator will regularly publish incident details regarding the number of “stop work” actions reported by location as well as details regarding common trends, corrective measures, and lessons learned.

Follow-Up

It is the desired outcome of any “stop work” intervention that the identified safety concerns be addressed to the satisfaction of all involved persons prior to the resumption of work. Although most issues can be adequately resolved

Stop Work Authority Program

in a timely fashion at the job site, occasionally additional investigation and corrective actions may be required to identify and address root causes.

“Stop Work” interventions that require additional investigation or follow-up will be handled utilizing existing protocols and procedures for incident investigation and follow-up.

Stop Work reports will be reviewed by the Safety Coordinator and management in order to measure participation, determine quality of interventions and follow-up, trend common issues, identify opportunities for improvement, and facilitate sharing of lessons learned.

Recognition

In order to build and reinforce a culture in which Stop Work Authority is freely exercised and accepted, supervisors and management are encouraged to positively recognize employee and contractor participation in the program. Minimally, each supervisor should informally recognize individuals when they exercise their authority to “stop work” or demonstrate constructive participation in a “stop work” intervention. This informal recognition needs be no more than an expression of appreciation for a job well done or the awarding of a nominal item of recognition. Additionally, formal recognition of selected examples of “stop work” interventions and those responsible should be made during regularly scheduled safety meetings.

Training

Training regarding this Stop Work Authority Policy and Program will be conducted as part of all new employee and contractor orientations. Additionally, a review of the Stop Work Authority Policy will be completed as part of regularly scheduled safety meetings.

Documentation of all training and reviews will be maintained as per established procedures.

Preventive Maintenance Program

The Altura Engineering and Design preventive maintenance program applies to all facilities and equipment that could cause serious physical harm to employees if equipment safety-related components fail. The preventive maintenance program includes facilities related safety equipment, and non-facilities items such as vehicles, material handling gear, noise mufflers on equipment, etc. Ultimately, the preventive maintenance program is focused on ensuring a formal process for maintaining safety features of equipment exists, and verifying building components are operating properly in order to prevent occupational injuries and illnesses as a result of exposure to safety and health related hazards.

Altura Engineering and Design requires that a site have a comprehensive preventive maintenance system that includes the following components:

- A written preventive and predictive maintenance system for monitoring and maintaining workplace equipment
- A defined equipment repair and replacement schedule that follows manufacturer's recommendations to prevent failure and creation of hazards/hazardous condition
- A system for documenting records of maintenance and repairs
- A preventive maintenance program that considers safety and health components of equipment
- Defects observed in machinery or equipment will be reported to a supervisor and must be repaired or replaced before being used again

Applicability

The preventive maintenance program applies to all facilities and departments at Altura Engineering and Design that house operations or equipment that could cause serious physical harm to employees if equipment safety-related components fail.

The program does not supersede any or regulatory requirements. Where items are subject to preventive maintenance requirements under multiple programs, the more stringent program/requirement will apply.

All supervisors/directors must maintain documentation or have access to records that verify preventive maintenance schedules and the records of last maintenance inspections of equipment.

An inventory of Altura Engineering and Design's machinery/ equipment should be established and kept current. When new machinery or equipment is acquired, it must be added to the inventory. Equipment may be added or removed from the mandatory preventive maintenance list as site operations and safety and health findings warrant change.

All equipment will receive visual inspections specifically for the purpose of identifying safety-related preventive maintenance issues, and to identify any hazardous conditions associated with the equipment. In addition, the need for equipment maintenance is also identified during routine self-inspections and by employees during daily visual pre-use equipment inspections.

Responsibilities

Management: Management is responsible to hold site personnel responsible for executing guidelines set in the preventative maintenance program.

- Plan, schedule, and complete preventive maintenance inspections and scheduled maintenance actions for assigned items in a timely manner, in accordance with manufacturer's recommendations and/or other applicable guidance. Utilize engineers or other appropriately qualified personnel to establish periodic inspection and preventive maintenance requirements for required items when manufacturers' recommendations and/or other applicable guidance have not been established.
- Document the completion of preventive maintenance activities for assigned items using logs/systems approved by the Safety Office.

Safety Coordinator: The Safety Coordinator will:

- Verify that all industrial equipment at the site goes through an initial pre-use analysis/machine check to ensure all safety features are operating properly.
- Verify that preventive maintenance inspections include the evaluation of equipment components designed to protect workers' safety and health.
- Provide technical oversight concerning the occupational safety and health aspects of the preventive maintenance program.
- Review and approve systems used by all departments for preventive maintenance planning and recordkeeping.
- Receive training in preventive maintenance topics as appropriate to their assigned duties.

Supervisors: It is the responsibility of the supervisors to do the following:

- Maintain an inventory of all equipment in their facility that requires preventive maintenance based on either manufacturer's guide or Altura Engineering and Design preventive maintenance policy.
- Coordinate preventive maintenance activities with responsible parties
- Inform the Safety Coordinator when new equipment is purchased that requires periodic preventive maintenance.
- Ensure all employees performing preventive maintenance receive appropriate item specific preventive maintenance training.

Employees: It is the responsibility of the employee to do the following:

- Not perform maintenance on equipment without authorization
- Conduct a visual inspection of equipment prior to use to ensure safety-related features are functioning properly.
- Immediately notify supervisors of facility/equipment failures and/or problems noted in visual inspections.
- Never bypass safety features or remove guards.

Documenting/Tracking Maintenance Activity

Preventive maintenance performed on machinery or equipment must be documented and retained for the life of the machinery or equipment.

Property Maintenance Program

The purpose of this section is to establish the policy for property maintenance.

Altura Engineering and Design goal is to provide its customers and employees with a safe facility. The following guidelines will help management determine if repairs are necessary.

Guidelines for Property Maintenance and Repair

Property maintenance and repair will be performed to meet the standards of safety and any applicable codes such as the Occupational Safety and Health Administration (OSHA) and the National Fire Protection Association (NFPA). OSHA and NFPA include:

- National Electric Code;
- Flammable Liquids Code;
- Life Safety Code;
- National Fuel Gas Code;
- Uniform Fire Code (UFC);
- Building Officials and Code Administrators International Building Code (BOCA);
- Americans With Disabilities Act (ADA).

Property maintenance must also ensure continued operation of the business. Management must promptly fix, repair, train employees, and give warnings of safety hazards. Management must promptly fix or repair any item necessary for the continued operation of the business. In the event an accident occurs, the employees involved and their supervisors will complete and sign accident report forms as soon as possible but by no later than the end of that shift.

Manual Lifting

Altura Engineering and Design employees perform a task that may require manually lifting and/or carrying a wide variety of items. It is the policy of Altura Engineering and Design that all management and employees will utilize the safe lifting techniques and principles stated in this program to minimize the potential of back injury or pain.

Procedure

Safe Lifting Techniques: The following points outline good lifting practices and procedures, safe lifting techniques that may be taught to workers to minimize their risk of back injury and pain. These practices are written with the lifter in mind. Lifting remains an important function despite the level of mechanization found in the workplace, so attention must be directed toward safe lifting practices. Before manual lifting is performed, a hazard assessment must be completed. The assessment must consider size, bulk, and weight of the object(s), if mechanical lifting equipment is required, if two-man lift is required, whether vision is obscured while carrying and the walking surface, and path where the object is to be carried.

The basics of good lifting are:

- Size up the load before you lift.
- Test by lifting one of the corners or pushing.
- Bend the knees; it is the single most important aspect of lifting.
- If it's heavy or feels clumsy, get a mechanical aid or help from another worker. When in doubt, do not lift alone!

When performing the lift:

- Place your feet close to the object and center yourself over the load.
- Get a good handhold.
- Lift straight up, smoothly and let your legs do the work, not your back!
- Avoid overreaching or stretching to pick up or set down a load.
- Do not twist or turn your body once you have made the lift.
- Make sure beforehand that you have a clear path to carry the load.
- Set the load down properly.
- Always push, not pull, the object when possible.
- Change the lifting situation if possible, to minimize a lifting hazard.
- If it is a long load, get some help.
- Split the load into several smaller ones, when you can, to achieve manageable lifting weight.

Avoid lifts from below the knees or above the shoulders by using mechanical aids, positioning yourself so that the object to move is within an acceptable lifting range (between the shoulders and knees), and/or getting help from your co-workers.

Manual Lifting Equipment

Manual lifting equipment for carrying or moving loads are to be used whenever possible to minimize lifting and bending requirements. Supervisors will enforce the use of manual lifting equipment when appropriate.

Manual lifting equipment can include the use of:

- Hoists
- Dollies

- Jacks
- Hand trucks
- Carts
- Cranes
- Other mechanical devices

When the use of manual lifting equipment is impossible or impractical, manual lifting equipment should be utilized or awkward loads. Only trained and/or qualified operator(s) should operate equipment.

Other Safe Work Techniques

Work issues other than lifting are related to back pain or injury. You can avoid them or improve work techniques related to them.

Catching objects and working low – When catching falling or tossed objects, your feet should be firmly planted, with your back straight and your knees slightly bent. Your legs should absorb the impact not your back. If you are working on something low, bend your knees. Keep your back as straight as possible. Bending from the waist can lead to back pain. If you have to use your back, keep your knees bent and your back flat. In both of these situations, frequent rest breaks are necessary to keep from getting back fatigue.

Extended sitting/standing – Certain tasks require long hours of standing or sitting. These conditions can create back problems. Get up and stretch frequently if you are required to sit for long periods. If standing, ease the strain on your lower back by changing foot positions often, placing one foot on a rail or ledge. However, keep your weight evenly balanced when standing. Do not lean to one side.

Other materials handling tasks – Tasks such as lowering, pushing, pulling, and carrying can create hazards to the back as well. If the task feels uncomfortable or unnatural, utilize the alternative materials-handling techniques listed in this Back Safety and Lifting Plan.

Housekeeping – Poor housekeeping: slippery floors, crowded work conditions, tools or other hazards on the floor can create slip, trip, or fall hazards that can result in back injury.

Poor posture at work – Be aware of proper posture when sitting, standing, or reclining. When sitting, your knees should be slightly higher than your hips and your shoulders and upper back should be straight. When lying down or sleeping, keep your knees slightly bent. Sleeping on your stomach can lead to morning backache.

Poor lighting – Poor lighting in the work area can lead to poor work practices that result in injuries of many types. Make sure lighting is adequate for the task at hand; replace burnt out bulbs, and point out hazardous areas to your immediate supervisor.

Other Back Safety Issues

Factors unrelated to work can affect back safety, including such things as physical conditions and posture, athletic or home-improvement activity, and tension and stress.

Posture – Whether you are standing, sitting, or reclining, posture affects the amount of strain put on your back. The wrong posture increases strain on the back muscles and may bend the spine into positions that will cause trouble. When standing correctly, the spine has a natural “S” curve. The shoulders are back and the “S” curve is directly over the pelvis. Good sitting posture should put your knees slightly higher than your hips. Your hips should be to the rear of the chair with your lower back not overly arched. Also, your shoulders and upper back should not be

rounded. Reclining posture is important, too. Sleep on your side with knees bent or sleep on your back. Sleeping on your stomach, especially on a sagging mattress with your head on a thick pillow, puts too much strain on the spine, resulting in morning backache.

Poor physical condition – Your physical condition can lead to back pain. If you are overweight, and especially if you have developed a potbelly, extra strain on your spine results. An estimate is that every extra pound up front put 10 pounds of strain on your back. When you are out of shape, the chances for chronic back pain are greater. Infrequent exercise is a major factor, too. A sudden strain on generally unused back muscles leads to trouble, particularly when there is a sudden twisting or turning of the back. Proper diet and exercise are the sensible way to help avoid back problems.

Stress – Stress is another factor that may lead to back pain. Tied in with your general physical condition, stress created from work or play can cause muscle spasms that affect the spinal nerve network. Although, stress is part of everyone's life and a certain amount of stress is normal, excessive stress causes backache. The solution is a balanced life style with time to relax.

Repetitive trauma – People often think back injuries result from lifting heavy or awkward objects. However, many back injuries do not come from a single lift, but occur from relatively minor strains over time. Back injuries, as with other cumulative trauma disorders (CTD) may arise from repeated major injuries. (Repetitive, low-grade strains usually do not cause CTDs.) As the worker repeats a particular irritating movement, the minor injuries begin to accumulate and weaken affected muscles or ligaments. Eventually a more serious injury may occur. Thus, a specific weight lifted may actually have little to do with any single injury. Remember to use mechanical aids when appropriate along with good lifting techniques, whenever you do any lifting. You can lift safely when performed with caution.

Examination of Work Areas and Processes

Altura Engineering and Design will periodically evaluate work areas and employees' work techniques to assess the potential for and prevention of injuries. New operations should be evaluated to engineer out hazards before work processes are implemented.

Training

Employees will be trained on general principles of ergonomics, recognition of hazards and injuries, procedures for reporting hazardous conditions, methods, and procedures for early reporting of injuries. Additionally, job specific training should be given on safe lifting and work practices, hazards, and controls. Manual lifting training will be documented and made available for review to properly identified employees, owners, or agents.

Reoccurrence of Musculoskeletal Injuries

Musculoskeletal injuries caused by improper lifting must be investigated and documented. Incorporation of investigation findings into work procedures must be accomplished to prevent future injuries. Musculoskeletal Injuries must be recorded and reported as required by 29 CFR Part 1904.

Machine Safeguarding Policy

The purpose of this procedure is to describe the responsibilities and requirements for the safeguarding of equipment and machinery utilized by Altura Engineering and Design employees. This policy applies to all Altura Engineering and Design' operations.

Definitions

Point of Operation: The point where work is performed on the material, such as cutting, shaping, boring, or forming of stock.

Power Transmission Apparatus: All components of the mechanical system which transmit energy to the part of the machine performing the work. These components include flywheels, pulleys, belts, connecting rods, couplings, cams, spindles, chains, cranks, and gears.

Other Moving Parts: All parts of the machine which move while the machine is working. These can include reciprocating, rotating, and transverse moving parts, as well as feed mechanisms and auxiliary parts of the machine.

Hazardous Mechanical Motions and Actions

A wide variety of mechanical motions and actions may present hazards to the operator. These can include the movement of rotating members, reciprocating arms, moving belts, meshing gears, cutting teeth, and any parts that impact or shear. These different types of hazardous mechanical motions and actions are basic in varying combinations to nearly all machines, and recognizing them is the first step toward protecting operators from the danger they present. The basic types of hazardous mechanical motions and actions are:

Motions

- Rotating (including in-running nip points);
- Reciprocating;
- Traversing.

Actions

- Cutting;
- Punching;
- Shearing;
- Bending.

Responsibilities

Management's Responsibility:

- Ensure all machinery is properly guarded.
- Develop and enforce machine guarding policies and procedures.
- Provide training to employees on machine guarding policies and procedures.
- Document training, including machine specific training.
- Ensure that newly purchased or altered equipment meets machine guarding requirements, and that affected employees are trained prior to use.
- Ensuring all tagged "out of service" equipment is repaired or replaced appropriately.

Machine Safeguarding Policy

- 250 -

Altura Engineering and Design
Reviewed: October 2024

Updated: October 2024

Revised: October 2024

Supervisor's Responsibility:

- Train assigned employees on the specific machine guarding policies and procedures in their areas.
- Monitor and inspect to ensure machine guards remain in place and are functional.
- Immediately correct machine guard deficiencies.
- Enforce the machine guarding policies and procedures.

Employee's Responsibility:

- Know how to operate all machinery properly to prevent injuries.
- Do not operate equipment unless you have been properly trained.
- Do not operate equipment unless guards are in place and are functional. Remove from service any malfunctioning equipment and tagging such equipment "out of service."
- Do not remove machine guards unless equipment is locked and tagged.
- Only trained and authorized employees may remove or replace machine guards and lock-out/ tag-out devices.
- Report machine guard problems to supervisors immediately.
- Report any employee who operates a machine without proper guarding.
- Pay attention to the task at hand - use caution when placing or removing material from the point of operation.
- Never use hands to remove material that is stuck or interferes with the operation of a machine, instead, use a push stick or tongs.
- Follow all operating steps and do not take shortcuts.
- Avoid loose clothing, gloves, or jewelry that can get caught in moving parts.

Serious injuries are likely to occur when safety guards and devices are removed. Use safe practices and avoid short cuts. Never remove, disable, or reach through or around a guard. Keep safety in mind when operating hazardous machinery - it can save your life!

Requirements

Safeguards must meet these minimum general requirements:

Prevent contact: The safeguard must prevent hands, arms, and any other part of an operator's body from making contact with dangerous moving parts. A good safeguarding system eliminates the possibility of the operator or another worker placing parts of their bodies near hazardous moving parts.

Secure: Operators should not be able to easily remove or tamper with the safeguard, because a safeguard that can easily be made ineffective is no safeguard at all. Guards and safety devices should be made of durable material that will withstand the conditions of normal use. They must be firmly secured to the machine.

Protect from falling objects: The safeguard should ensure that no objects can fall into moving parts. A small tool that is dropped into a cycling machine could easily become a projectile that could strike and injure someone.

Create no new hazards: A safeguard defeats its own purpose if it creates a hazard of its own such as a shear point, a jagged edge, or an unfinished surface which can cause a laceration. The edges of guards, for instance, should be rolled or bolted in such a way that they eliminate sharp edges.

Create no interference: Any safeguard, which impedes an operator from performing the job quickly and comfortably, might soon be overridden or disregarded. Proper safeguarding can actually enhance efficiency since it can relieve the operator's apprehension about injury.

Allow safe lubrication: If possible, one should be able to lubricate the machine without removing the safeguards. Locating oil reservoirs outside the guard, with a line leading to the lubrication point, will reduce the need for the operator or maintenance operator to enter the hazardous area.

Protective Clothing and Personal Protective Equipment: Engineering controls that eliminate the hazard at the source and do not rely on the operator's behavior for their effectiveness offer the best and most reliable means of safeguarding. Therefore, engineering controls are the first choice for eliminating machine hazards. But whenever engineering controls are not available or are not fully capable of protecting the operator (an extra measure of protection is necessary), operators must wear protective clothing or personal protective equipment.

If it is to provide adequate protection, the protective clothing and equipment selected must always be:

- Appropriate for the particular hazards;
- Maintained in good condition;
- Properly stored when not in use, to prevent damage or loss; and
- Kept clean, fully functional, and sanitary.

Protective clothing is, of course, available for different parts of the body. Hard hats can protect the head from the impact of bumps and falling objects when the operator is handling stock; caps and hairnets can help keep the operator's hair from being caught in machinery. If machine coolants could splash or particles could fly into the operator's eyes or face, face shields, safety goggles, glasses, or similar kinds of protection might be necessary. Hearing protection may be needed when operators operate noisy machines. To guard the trunk of the body from cuts or impacts from heavy or rough-edged stock, there are certain protective coveralls, jackets, vests, aprons, and full-body suits that should be used. Operators can protect their hands and arms from the same kinds of injury with special sleeves and gloves. Safety shoes and boots, or other acceptable foot guards can shield the feet against injury in case the operator needs to handle heavy stock that might drop.

It is important to note that protective clothing and equipment can create hazards. A protective glove which can become caught between rotating parts, or a respirator face-piece which hinders the wearer's vision, for example, require alertness and continued attentiveness whenever they are used.

Other parts of the operator's clothing may present additional safety hazards. For example, loose-fitting shirts might possibly become entangled in rotating spindles or other kinds of moving machinery. Jewelry, such as bracelets and rings, can catch on machine parts or stock and lead to serious injury by pulling a hand into the danger area.

Periodic Review

All equipment will be inspected periodically to ensure the appropriate safeguards are in place and being properly maintained. The training program will be reviewed to ensure the equipment and safeguards in use are incorporated with the employee training, and the training provided is effective.

Follow up

Machine guarding will be added to the Preventive Maintenance (PM) schedule per machine so that it will be checked on a regular basis.

New Equipment

It is the responsibility of the Supervisor to make sure any new equipment coming in has proper guards in compliance with OSHA requirements.

Abrasive Grinding Equipment

One of the most frequently cited OSHA violations for machine guarding is for improper or missing guards on abrasive wheel or grinding equipment. Powered abrasive grinding, cutting, polishing and wire buffing wheels create special safety problems because they may throw off flying fragments or excessive dust. To reduce the exposure to the hazards associated with powered abrasive wheel equipment, the following safety policy should be followed.

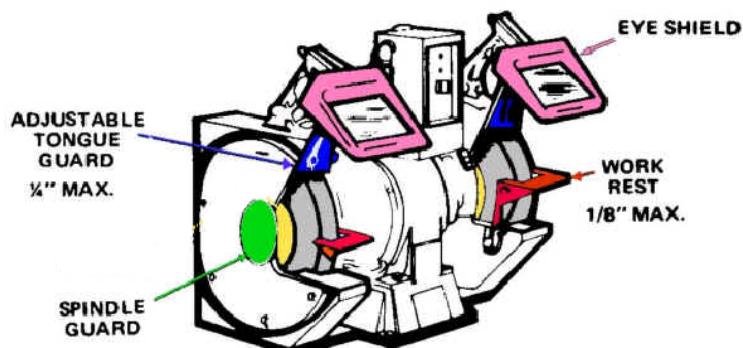
Bench Mounted Grinders

Before an abrasive wheel is mounted, it will be inspected closely and sound- or ring-tested to ensure that it is free from cracks or defects. To test, wheels will be tapped gently with a light non-metallic instrument. If the wheel sounds cracked or dead, they could fly apart in operation and will not be used. A sound and undamaged wheel will give a clear metallic tone or "ring." To prevent the wheel from cracking, the user will be sure it fits freely on the spindle. The spindle nut will be tightened enough to hold the wheel in place, without distorting the flange. Follow the manufacturer's recommendations. Care will be taken to ensure that the spindle wheel does not exceed the abrasive wheel specifications.

Due to the possibility of a wheel disintegrating (exploding) during start-up, the employee will never stand directly in front of the wheel as it accelerates to full operating speed.

The following guards should be in place anytime a bench mounted grinder is used:

- Eye Shield.
- Spindle (side) Guards.
- Adjustable Tongue Guard set with no more than $\frac{1}{4}$ " of clearance.
- Work/Tool Rest set with no more than $\frac{1}{8}$ " of clearance.



Portable Handheld Grinders

Portable grinding tools need to be equipped with safety guards to protect workers not only from the moving wheel surface, but also from flying fragments in case of breakage. Handheld grinders should have the guard in place and positioned between the operator and the grinding wheel. The purpose of the guard is to prevent the operator from being struck by any flying material or debris created by the grinding activity, and in the event of wheel breakage. For this reason, handheld grinders should never be used with a missing guard.

In addition, when using a power grinder:

- Always use eye protection;
- Wearing a dust mask is recommended;
- Turn off the power when not in use;
- Never clamp a hand-held grinder in a vise.

Machine Safeguarding Policy

Only use grinding wheels and attachments of an appropriate size and speed rating as recommended by the manufacturer of the handheld grinder.

Training

Even the most elaborate safeguarding system cannot offer effective protection unless the operator knows how to use it and why. Specific and detailed training is therefore a crucial part of any effort to provide safeguarding against machine-related hazards. Thorough operator training should involve instruction or hands-on training in the following:

- A description and identification of the hazards associated with particular machines and the safeguards themselves;
- How they provide protection, and the hazards for which they are intended;
- How to use the safeguards;
- Why, how, and under what circumstances safeguards can be removed, and by whom (in most cases, repair or maintenance personnel only);
- What to do (e.g., contact the supervisor) if a safeguard is damaged, missing, or unable to provide adequate protection.

This kind of safety training is necessary for new operators and maintenance or setup personnel, when any new or altered safeguards are put in service, or when operators are assigned to a new machine or operation.

Training Levels

Supervisors

Supervisors will receive training on Machine Guarding Requirements.

Employees

Affected employees will receive General Awareness Machine Guarding training on the equipment they will be operating.

Hand and Power Tools Policy

The purpose of the Hand and Power Tool policy is to complement Altura Engineering and Design' training program by setting proper procedures that all employees must follow when working with hand and power tools in order to prevent accidents from occurring in the workplace. Altura Engineering and Design is aligned with OSHA's mission to promote worker safety and health in the workplace. Altura Engineering and Design' Hand and Power Tool Safety Policy aims to protect employees who work in environments that require the use of hand and/or power tools. Each employee will receive the appropriate training in these procedures and strictly adhere to them except when doing so would expose the employee to a greater hazard.

Altura Engineering and Design is committed to providing a safe and healthy work environment for all employees. In pursuit of this goal, this policy provides the minimum requirements to ensure the Hand and Power Tool Safety Program is successfully and consistently implemented. Those regulations applicable to Altura Engineering and Design are included in this written plan; however, it is recommended to review all applicable OSHA and ANSI regulations and standards prior to using hand and power tools.

Responsibilities

Division of HSE (HSE Director)

- Develop and coordinate the implementation of the overall hand and power tools safety program.
- Provide training and written instructions for the use of all hand and power tools.
- Review hazards associated with hand and power tools during audits and inspections.
- Review and update the Hand and Power Tools Safety Tool policy.
- Implementation of the hand and power tool safety program.

Employees

- Comply with the procedures outlined within Altura Engineering and Design' hand and power tool safety program.
- Properly select, use, handle, and store hand and power tools in accordance with the instructions and training received.
- Thoroughly inspect and maintain hand and power tools before and after use.
- Report any hazards observed, which could compromise personal safety or the safety of others to their supervisor immediately.

General Guidelines

While a wide range of hand and power tools may be utilized during a job, the following guidelines should be applied:

- **Select the Right Tool for the Job:** Examples of unsafe practices are: Striking hardened faces of hand tools together (such as using a carpenter's hammer to strike another hammer, hatchet, or metal chisel), using a file for a pry, a wrench for a hammer, using a 'cheater', and pliers instead of the proper wrench.
- **Keep Tools in Good Working Condition:** Wrenches with cracked work jaws, screw drivers with broken points or broken handles, hammers with loose heads, dull saws, and extension cords or electric tools with broken plugs, improper or removed grounding prongs, or split insulation are examples of tools in poor conditions. Ensure tools are properly serviced and maintained according to the tool's instruction manual.
- **Removing Unsafe Tools from Service:** Tools that have deteriorated and are no longer in safe working condition must be taken out of service. When a tool is not in safe working condition, employees are required

to identify the tool as unsafe by marking or locking-out the tool. Once the tool has been locked-out, employees must immediately notify a supervisor to repair or dispose of the tool.

- **Use Tools the Right Way:** Screw drivers applied to objects held in the hand, knives pulled toward the body, and failure to ground electrical equipment are common causes of accidents. Do not use tools for purposes other than its intended use.
- **Place/Keep/Store Tools in a Safe and Secure Place:** Many accidents have been caused by tools falling from overhead and by knives, chisels, and other sharp tools carried in pockets or left in tool boxes with cutting edges exposed. Tools should be kept away from work bench edges or other elevated surfaces that could pose a falling hazard.

Safe Shop and Field Practices

- Establish regular tool inspection procedures and provide good repair facilities to ensure that tools will be maintained in safe condition.
- Establish a procedure for control of tools such as a check-out system at tool cribs.
- Provide proper storage facilities in the tool room and on the job.
- The employer is responsible for the safe condition of tools and equipment used by employees, but the employees have the responsibility for properly using and maintaining tools.

Machine Guards

Hazardous moving parts of a power tool need to be safeguarded. For example, belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded if such parts are exposed to contact by employees. Guards, as necessary, should be provided to protect the operator and others from the following:

- Point of operation
- In-running nip points
- Rotating parts
- Flying chips and sparks

All employees must adhere to the requirements outlined in 29 CFR 1920.241-244 as well as the following guidelines:

- Machine guards will be clean and secured to prevent hazards.
- All emergency STOP buttons will be colored red and easily accessible to the operator.
- All non-current-carrying metal parts of electric equipment will be properly grounded.
- Sufficient clearance must be maintained around equipment to ensure safe operation, maintenance and waste removal.

Hand Tools Guidelines

Hand tools are non-powered tools including wrenches, pliers, hammers, hand saws, etc. Common hazards in regards to hand tools arise from misuse and improper maintenance. The following examples are common examples of misuse:

- Using a screwdriver as a chisel, causing the operator to lose control and resulting in the screwdriver projecting and striking another employee or tool.
- Using tools with handles that have splintered or cracked (i.e. wood handle on a hammer).

- Using a wrench as a hammer.

The follow precautions should be considered when using a hand tool:

- Saw blades and knives should be directed away from aisle areas. Keep blades and knives sharp.
- Floors will be kept clean and dry to prevent slips, trips, and falls around hand tools.
- When near flammable substances, sparks can be a dangerous ignition source. Spark-resistant tools should be used when flammable substances are nearby.

Power Tools Guidelines

Power tools also pose hazardous conditions when not used properly. Depending on the type of power tool, several sources of power may be used such as electric, pneumatic, liquid fuel, hydraulic, and power-actuated. The following precautions should be considered when using power tools:

- Never transport a tool by carrying the cord or hose.
- Never remove prongs from a power cord.
- Always use a Ground Fault Circuit Interrupter (GFCI) with electrical tools.
- Keep cords and hoses away from heat and sharp edges.
- Replace frayed or damaged power cords.
- Disconnect power from tools when not in use, before services, and when changing accessories.
- Avoid loose fitting clothes, ties, or jewelry such as bracelets.
- Keep a well-lit area when operating power tools.

Personal Protective Equipment (PPE)

Employees who use hand and power tools and are exposed to the hazards of noise, vibration, falling, flying, abrasive, and splashing objects, or to harmful dusts, fumes, mists, vapors, or gases must be provided with the appropriate personal protective equipment. While all employees must meet the minimum requirements of Altura Engineering and Design according to the "Personal Protective Equipment Safety Policy" and those of customers where work is being conducted, the following considerations should be evaluated at a minimum in the selection and use of PPE when using hand and portable powered tools:

- Safety glasses or goggles must be worn at all times when using hand and powered tools.
- A face-shield may be used in addition to safety glasses or goggles to protect the face and neck.
- Safety-toe leather shoes should be worn while working with power tools to prevent injury from dropped tools.
- Hearing protection is recommended when using power tools.

Before working with hand and power tools, employees should conduct a Job Hazard Risk Assessment (JHRA) to determine consult the hazard evaluation for the job you will be conducting to determine if additional PPE will be needed.

Training

Employees will be trained on all of the policies and guidelines pertaining to hand and power tools safety, including the proper use of tools, PPE, and guards. Additional training will be conducted in response to the following circumstances:

Hand and Power Tools Policy

- Whenever changes in the workplace or this procedure render previous training obsolete
- When inadequacies in the employee's use and handling indicate that the employee has not retained the requisite understanding or skill
- When any other situations arise in which retraining appears necessary to ensure the proper installment, care, use and handling, and storage.

Control of Hazardous Energy Lockout/Tagout Program

The objective of this procedure is to establish a means of positive control to prevent the accidental starting or activating of machinery or systems while they are being repaired, cleaned, and/or serviced. This program serves to:

- Establish a safe and positive means of shutting down machinery, equipment, and systems.
- Prohibit unauthorized personnel or remote-control systems from starting machinery or equipment while it is being serviced.
- Provide a secondary control system (tagout) when it is impossible to positively lockout the machinery or equipment.
- Establish responsibility for implementing and controlling lockout/tagout procedures.
- Ensure that only approved locks, standardized tags, and fastening devices provided by Altura Engineering and Design will be utilized in the lockout/tagout procedures.

Assignment of Responsibility

The Company Official will oversee and manage Altura Engineering and Design's Plan for Control of Hazardous Energy and will be responsible for implementing the lockout/tagout program. This includes enforcing the program, ensuring compliance with appropriate procedures in all departments, and monitoring compliance.

Authorized Employees are responsible for following established lockout/tagout procedures. An authorized employee is defined as a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered by 29 CFR 1910.147, The Control of Hazardous Energy (lockout/tagout).

Affected Employees (all other employees) are responsible for ensuring they do not attempt to restart or re-energize machines or equipment that are locked out or tagged out. An affected employee is defined as a person whose job requires them to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed.

The Safety Coordinator is responsible for annually reviewing the facility to ensure this policy is being followed.

Lockout Examples

There are many different types of energy covered under this standard, including hydraulic, electrical, mechanical, pneumatic, gravity, chemical, or thermal. Examples of lockout methods are shown below:

- Electrical and electromagnetic lockout - Disconnect the conductors of a circuit from the source of electrical current by:
 - Opening a disconnect switch, removing a fuse, and/or effectively parting terminals and then attaching lock and tag.
 - Bleeding off all residual electrical and electromagnetic charges.
- Hydraulics, air, gas or steam lockout - Close supply valve and blind the supply line when possible.
 - Locks the valves closed and tag the valve.
 - Bleed the line or lines and disconnect.

Control of Hazardous Energy Lockout/Tagout Program

- Mechanical energy - blocks or chains any objects that can be affected by the source of gravity or another source of mechanical energy;
- Stored energy - relieves or restrains energy stored in spring, then lock and tag as appropriate.
- Thermal, chemical, other - Always isolate, lock and tag, dissipate, and restrain as appropriate.

Lockout/Tagout Procedures

The ensuing procedures are to be followed to ensure both compliance with the OSHA Control of Hazardous Energy Standard, as well as the general safety and welfare of our employees.

Preparation for Lockout or Tagout

Employees who are required to utilize the lockout/tagout procedure must be knowledgeable of the different energy sources and the proper sequence of shutting off or disconnecting energy means. All lockout devices must indicate the identity of the employee applying the device. The seven types of energy sources are:

- Electrical (most common form);
- Hydraulic;
- Pneumatic;
- Fluids and gases; and
- Mechanical (including gravity);
- Chemical;
- Thermal.

More than one energy source may be utilized on some equipment and the proper procedure must be followed in order to identify energy sources and lockout/tagout accordingly.

“Lockout Device” is defined as a device that utilizes a lock, either key or combination to hold an energy isolating device in a safe position. If an energy source cannot be locked out, a tagout system will be utilized. All lockout devices must indicate the identity of the employee applying the device.

“Tagout Device” is defined as a warning tag (weather and chemical resistant) standardized in size, color, and with wording warning of hazardous energy (Do Not Start; Do Not Open; Do Not Close; Do Not Energize; Do Not Operate).

Electrical

1. Shut off power at equipment and disconnect energy source.
2. Disconnecting means must be locked or tagged.
3. Activate equipment to verify that correct systems are locked out.
4. All controls must be returned to their safest position.

Points to remember:

- If a machine or piece of equipment contains capacitors, they must be drained of stored energy.
- Possible disconnecting means include the power cord, power panels (look for primary and secondary voltage), breakers, the operator's station, motor circuit, relays, limit switches, and electrical interlocks.
- Some equipment may have a motor isolating shut-off and a control isolating shut-off.
- If simply unplugging the power cord disconnects the electrical energy, the cord must be kept under the control of the authorized employee or the plug end of the cord must be locked out or tagged out.

Control of Hazardous Energy Lockout/Tagout Program

Hydraulic/Pneumatic

1. Shut off all energy sources (pumps and compressors). If the pumps and compressors supply energy to more than one piece of equipment, lockout or tagout the valve supplying energy to the piece of equipment being serviced.
2. Stored pressure from hydraulic/pneumatic lines will be drained or bled when release of stored energy could cause injury to employees.
3. Make sure controls are returned to their safest position (off, stop, standby, inch, jog, etc.).

Fluids and Gases

1. Identify the type of fluid or gas and the necessary personal protective equipment.
2. Close valves to prevent flow, and lockout/tagout.
3. Determine the isolating device, then close and lockout/tagout.
4. Drain and bleed lines to zero energy state.
5. Some systems may have electrically controlled valves. If so, they must be shut off and locked/tagged out.
6. Check for zero energy state at the equipment.

Mechanical Energy

1. Mechanical energy includes gravity activation, energy stored in springs, etc.
2. Block out or use die ram safety chain.
3. Lockout or tagout safety device.
4. Shut off, lockout or tagout electrical system.
5. Check for zero energy state.
6. Return controls to safest position.

Release from Lockout/Tagout

Inspection: Make certain the work is completed and inventory the tools and equipment that were used.

Clean-up: Remove all towels, rags, work-aids, etc.

Replace guards: Replace all guards possible. Sometimes a particular guard may have to be left off until the start sequence is over due to possible adjustments. However, all other guards should be put back into place.

Check controls: All controls should be in their safest position. The work area will be checked to ensure that all employees have been safely positioned or removed and notified that the lockout/tagout devices are being removed.

Remove locks/tags. Remove only your lock or tag.

Maintenance Requiring Undisrupted Energy Supply

Where maintenance, repairing, cleaning, servicing, adjusting, or setting up operations cannot be accomplished with the prime mover or energy source disconnected, such operations may only be performed under the following conditions:

- The operating station (e.g. external control panel) where the machine may be activated must at all times be under the control of a qualified operator.
- All participants must be in clear view of the operator or in positive communication with each other.
- All participants must be beyond the reach of machine elements that may move rapidly and present a hazard.

Control of Hazardous Energy Lockout/Tagout Program

- Where machine configuration or size requires that the operator leave the control station to install tools, and where there are machine elements which may move rapidly, if activated, such elements must be separately locked out.
- During repair procedures where mechanical components are being adjusted or replaced, the machine will be de-energized or disconnected from its power source.

Service or Maintenance Involving More than One Person

When maintenance is performed by more than one person, each authorized employee will place their own lock or tag on the energy isolating source in order to ensure the employees a level of protection equal to that provided by personal lock out or tagout. This will be done by utilizing a multiple lock scissor clamp or a group LOTO box if the equipment is capable of being locked out. If the equipment cannot be locked out, then each authorized employee must place their tag on the equipment. The company official has primary responsibility for all employees working under the protection of a group lockout.

Removal of an Authorized Employee's Lockout/Tagout by the Company

Each location must develop written emergency procedures that comply with 29 CFR 1910.147(e)(3) to be utilized at that location. Emergency procedures for removing lockout/tagout should include the following:

- Verification by employer that the authorized employee who applied the device is not in the facility.
- Make reasonable efforts to advise the employee that their device has been removed. (This can be done when they return to the facility).
- Ensure that the authorized employee has this knowledge before they resume work at the facility.

Testing or Positioning of Machines, Equipment or Components

In situations in which lockout or tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions will be followed and documented:

- Clear the machine or equipment of tools and materials.
- Remove employees from the machine or equipment area.
- Remove the lockout or tagout devices as specified.
- Energize and proceed with testing or positioning.
- De-energize all systems and reapply energy control measures to continue the servicing and/or maintenance.

Shift or Personnel Changes

A high percentage of accidents historically occur shortly after a shift change and are often due to a lack of communication. The company official will coordinate with all affected parties if a shift or personnel change is necessary. Each procedure must specify how the continuity of lockout or tagout protection will be ensured at all times.

When work involving lockout/tagout extends across two or more shifts the continuity of lockout or tagout protection, including provision for the orderly transfer of lockout or tagout device protection between off-going and oncoming

Control of Hazardous Energy Lockout/Tagout Program

employees will be maintained. The recommended procedure for orderly transfer of lockout/tagout responsibility is as follows:

During a shift change, exiting personnel should meet oncoming personnel at the location of the lockout/tagout device. The oncoming authorized employee should place their lock or tag on the energy isolating device before the exiting authorized employee removes their /their lock or tag. If this is not possible, the oncoming authorized employee should place their lock or tag on the energy isolating device immediately after the exiting authorized employee removes their lock or tag. Exiting employees should inform oncoming employees of any problems or concerns regarding the service and maintenance of machinery or equipment.

Procedures for Outside Personnel/Contractors

Outside personnel/contractors will be advised that Altura Engineering and Design has and enforces the use of lockout/tagout procedures. They will be informed of the use of locks and tags and notified about the prohibition of attempts to restart or re-energize machines or equipment that are locked out or tagged out.

Altura Engineering and Design will obtain information from the outside personnel/contractor about their lockout/tagout procedures and inform affected employees of their procedures. The contract employer must advise the host employer of any unique hazards presented by the work, unanticipated hazards, and any measures taken to correct hazards reported to them.

The outside personnel/contractor will be required to sign a certification form. If outside personnel/contractor has previously signed a certification that is on file, additional signed certification is not necessary.

Training and Communication

Each authorized employee who will be utilizing the lockout/tagout procedure will be trained in the recognition of applicable hazardous energy sources, type and magnitude of energy available in the work place, and the methods and means necessary for energy isolation and control.

Each affected employee (all employees other than authorized employees utilizing the lockout/tagout procedure) will be instructed in the purpose and use of the lockout/tagout procedure, and the prohibition of attempts to restart or re-energize machines or equipment that are locked out or tagged out.

Retraining will be provided for all authorized and affected employees at least annually and whenever there is a change in their job assignments; a change in machines, equipment, or processes that present a new hazard; or when there is a change in the energy control procedures.

Additional retraining will also be conducted whenever a periodic inspection reveals or whenever the employer has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

Documentation of training will be implemented and will be retained indefinitely by Altura Engineering and Design.

Periodic Inspection

A periodic inspection (at least annually) will be conducted of each authorized employee under the lockout/ tagout procedure. An authorized person will perform this inspection.

Control of Hazardous Energy Lockout/Tagout Program

The inspection will include a review between the inspector and each authorized employee of that employee's responsibilities under the energy control (lockout/tagout) procedure. The inspection will also consist of a physical inspection of the authorized employee while performing work under the procedures.

The inspector will certify in writing that the inspection has been performed. Altura Engineering and Design will retain the written certification.

Exceptions to OSHA's Lockout or Tagout Requirements

Certain operations, situations, and tasks are not covered under OSHA's General Industry standard for control of hazardous energy (lockout/tagout). These exceptions are summarized below.

The following operations are not covered by 29 CFR 1910.147:

- Construction, agriculture, and maritime employment
- Installations under the exclusive control of electric utilities for the purpose of power generation, transmission distribution, including related equipment for communication or metering
- Exposure to electrical hazards from work on, near, or with conductors or equipment in electric utilization installations (See 29 CFR 1910, Subpart S)
- Oil and gas well drilling and servicing

Normal Production- Normal production operations are not covered by this standard. Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations, are also not covered by this standard if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection.

Cord and Plug-Connected Equipment - Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energizing or startup of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.

Hot Tap Operations - Hot tap operations involving transmission distribution systems for substances such as gas, steam, water, or petroleum products when they are performed on pressurized pipelines, provided that the employer demonstrates that-

- Continuity of service is essential;
- Shutdown of the system is impractical; and
- Documented procedures are followed, and special equipment is used which will provide proven effective protection for employees.

Lockout/ Tagout Sequence

Lockout/Tagout procedures must be followed during the repair or servicing of equipment that may be energized. In general, Lockout/Tagout procedures include:

- Isolating and/or disconnecting energy sources with Lockout/ Tagout devices
- Verifying isolation
- Repairing/servicing isolated equipment
- Removing locks and tags
- Returning to normal service

Control of Hazardous Energy Lockout/Tagout Program

Step	This table describes the Lockout/ Tagout sequence
1	Locate and identify all switches, valves or other energy isolating devices that apply to the equipment to be locked and tagged out. More than one energy source may be involved. This identification should be done as part of the work order system.
2	Notify all affected employees (at least verbally) that a Lockout/ Tagout system is going to be used. Explain the circumstances.
3	If the equipment is operating, shut it down with normal stopping procedures (i.e., press stop button, close valve, etc.)
4	If applicable, open the electrical disconnect switch (es), etc. so that all electrical energy sources are disconnected /isolated from equipment.
5	Blind valves or other isolating devices so energy sources (mechanical, hydraulic, etc.) are disconnected or isolated from equipment. Note - double block and bleed valves are suitable in place of blinds.
6	Each individual involved in the repair or maintenance operation must place a lock and tag on each energy isolating device. As an alternative method, the Facility Manager (or the trained designee) may place a single lock and tag upon each energy isolating device after de-energization. The keys are then placed in a lockbox. After each authorized employee assigned to the job is satisfied that all sources of potentially hazardous energy have been isolated and locked out, they then affix their personal lock and tag to the lockbox.
7	Dissipate or restrain stored energy, such as in capacitors, flywheels, springs, hydraulics, air, gas, steam, water, gravity, etc.

Verification of Isolation

To ensure that equipment will not operate and to verify that energy sources are disconnected, operate the push button or other normal operating controls. Note: always return the operating controls to a "neutral" or "off" position after performing this test. Never leave a "command" which will lead to an unexpected or undesired operation of the equipment as soon as power is restored.

Removing Locks and Tags

The following table describes the procedures for removing locks/tags:

Step	Action
1	After servicing and/or maintenance are complete and the equipment is ready for normal operations, check area around equipment to ensure that no one is exposed.
2	Notify all affected employees of the intent to remove locks/ tags.

Control of Hazardous Energy Lockout/Tagout Program

3	<p>After all tools have been removed from the equipment, guards have been reinstalled, employees are clear, and the controls are in neutral, each person removes their lock and tag. If a lockbox procedure was used, each person removes their lock and tags from the lockbox, and then the Facility Manager or designee removes the lock and tag from each energy isolating device. It is a serious violation of safety for any person to remove another person's lock and/or tag (except as provided below). When an employee has left their lock and/or tag on an energy isolating device or on a lockbox for an unknown reason and it has to be removed, follow this procedure below:</p> <p>If the employee is at the facility, notify them to remove the lock and/or tag.</p> <p>If the employee has left the facility, make every effort to contact them to determine their reason for not removing the lock/tag before leaving facility.</p> <p>If contacted, the person may be required to return to the facility to remove their lock/tag.</p> <p>If the employee cannot be contacted, the Facility Manager may remove the lock and/or tag after fully checking the equipment to ensure all removal criteria have been met.</p> <p>The employee will be notified of their lock removal prior to their return to the job site.</p>
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Shift Changes

All work involving lockout/ tagout procedures should be completed before the shift change. If the shift is over and the work is not complete, the new shift must place their lock/tags on the equipment as the previous shift's lock/ tags are removed. All off-going shifts will clear the area of tools, advise the new shift of the work being done and the associated hazards and remove their locks/tags in the presence of the oncoming shift. The oncoming shift will verify energy isolation prior to proceeding with the work.

Contractor Policy

All contractors working for Altura Engineering and Design will have and use an effective Lockout/ Tagout procedure, meeting at least the minimum requirements of Altura Engineering and Design procedure. Contractors should provide their own Lockout/ Tagout equipment, but facility may issue locks/ tags to contractors on an as-needed basis.

Contractor Lockout Procedure

This table describes the Lockout/ Tagout procedures for Contractors.

Step	Action
1	Altura Engineering and Design facility manager or designee follows the procedure outlined in this policy to lock and/or tag the equipment.
2	The contractor accompanies Altura Engineering and Design facility manager or designee while the lockout procedure is being performed and attaches their own locks/tags to all energy isolating devices (in addition to Altura Engineering and Design lock/tags).
3	The contractor removes their lock/tags when the work is complete and when all of their employees and equipment are clear.
4	Altura Engineering and Design facility manager or designee removes the lock/ tags from the energy isolating devices.

Control of Hazardous Energy Lockout/Tagout Program

Equipment That Cannot be "Physically" Locked Out

Due to age and/or design, it is not possible to "physically" lock out some equipment. However, make every effort to secure a device to the system, machine, or equipment so it can be physically locked out.

If it is not possible to physically lock out equipment:

- Perform alternate means, such as physically disconnecting and tagging drive chains, shafts, motors, electrical leads or switches, piping, etc.
- Clearly tag each piece of equipment to confirm that it has been disassembled to isolate the energy source.

Ensure that all repaired, modified, or replaced pieces of equipment or machines are designed to accept a lock.

Lockouts must be used wherever possible, since tags do not provide the security of a lock. Tags alone are acceptable means only if there is no way to lock out the equipment.

Definitions

Affected Employee: An employee or contractor that works in the area or on the equipment being locked or tagged out. Training involves why Lockout/ Tagout is important and why they must not remove tags.

Authorized Employee: An employee trained in the recognition of energy sources and the proper methods of isolation, control, and release of the energy and is therefore authorized to place a Lockout or Tagout device on equipment.

Energy Isolating Device: A mechanical device that physically prevents the transmission or release of energy. Examples include:

- Manually operated electrical circuit breaker;
- Disconnect switch;
- Line valve;
- Blind.

Individual Lock: A lock issued to an individual. These locks are to be used only for lockout purposes. If a key is lost, replace the lock, not the key.

Lockout: Locking or blinding and tagging equipment in such a way that it cannot be energized without the lock being removed

Lockout Device: A device that uses a positive means (such as a lock) to hold an energy isolating device (such as a valve or switch) in the safe position and prevent the energizing of the equipment.

Other Moving Parts: All parts of the machine which move while the machine is working. These can include reciprocating, rotating, and transverse moving parts, as well as feed mechanisms and auxiliary parts of the machine.

Point of Operation: That point where work is performed on the material, such as cutting, shaping, boring, or forming of stock.

Control of Hazardous Energy Lockout/Tagout Program

Tagout: The placement of a tagout device on an energy isolating device to indicate that the energy isolating device and the equipment being controlled may not be operated until the tag is removed.

Tagout Device: A unique and standardized warning device capable of being attached to energizing points on equipment. The tags must be durable, standardized, and easily identifiable and attached to the equipment with non-reusable devices. Tags must contain who placed the lock/tag, when the lock/tag was put on, and what system the lock/tag is protecting.

Zero Energy State: A state in which a logged and tagged machine or piece of equipment possesses no unrestrained stored energy of any type. Items such as capacitors and springs can retain energy even with no outside power sources.

Restart Procedures

The steps listed below must be followed to properly release this equipment from a locked or tagged out condition and restart it.

1. Inspect the machine and the immediate area around the machine to ensure that nonessential items have been removed and that the machine components are operationally intact.
2. Check the work area to ensure that all employees have been safely positioned or removed from the area.
3. Verify that the controls are in neutral.
4. Remove the lockout devices and reenergize the machine.
5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

Electrical Installations, Equipment, and Electrical Safety

All electrical work will be conducted in a manner consistent with existing regulations and with good standard practices at Altura Engineering and Design. This section establishes standards for electrical operations.

Because electrical work has the potential for electrocution and catastrophic property damage, extreme caution must be exercised when working with electricity and electrical equipment. Electrical equipment can also cause fire because of its potential as an ignition source for causing fire or explosion.

Fire is frequently caused by short circuits, overheating equipment and failure of current limiters, thermal sensors, and other safety devices. Explosions may occur when flammable liquids, gases, and dusts are exposed to ignition sources generated by electrical equipment.

Requirements

Electrical installations and utilization equipment will be in accordance with the current edition of the National Electrical Code, National Fire Protection Association (NFPA 70); American National Standards Institute (ANSI) Standard C1. This code will also apply to every replacement, installation, or utilization equipment.

Equipment or facilities designed, fabricated for, and intended for use by Altura Engineering and Design personnel will be procured to meet the requirements of the National Electric Code.

Frames of all electrical equipment, regardless of voltage, will be grounded.

Exposed non-current carrying metal parts of electrical equipment that may become energized under abnormal conditions will be grounded in accordance with the National Electrical Code.

Wires will be covered wherever they are joined, such as: outlets, switches, or junction boxes.

Parts of electrical equipment which in ordinary operation produces arcs or sparks will not be operated or used in explosive atmospheres or in close proximity to combustible materials.

Equipment connected by flexible extension cords will be grounded either by a 3-wire cord or by a separate ground wire (except double insulated equipment).

Ground fault circuit interrupters (GFCI) will be used on all 120-volt, single-phase, 15- and 20-ampere receptacle outlets at job sites when the receptacles are not a part of the permanent wiring of the building or structure.

Receptacles on a two wire, single-phase portable or vehicle-mounted generator rated not more than 5 kilowatts, where the circuit conductors of the generator are insulated from the generator frame and all or the grounded surfaces, need not be protected with GFCIs.

Conductors and parts of electrical equipment that have been de-energized but not been locked or tagged out shall be treated as live parts, and the procedures and policies for working on live parts shall be followed.

Only qualified persons may work on electric circuit parts or equipment that have not been deenergized. Such persons shall be capable of working safely on energized circuits and shall be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

Electrical Installations, Equipment, and Electrical Safety

Inspections

Supervisors will ensure that work areas are inspected for possible electrical hazards.

Sufficient workspace will be provided and maintained around electric equipment to permit safe operations and maintenance of such equipment.

Responsibilities

Supervisors

All work hazards must be anticipated and all safeguards utilized.

Supervisor will ensure that all employees are properly trained and instructed in the safe operation of electrical equipment and aware of all hazards associated with the use of these electrical devices.

Supervisors will initiate any necessary administrative action required to enforce safety practices.

Supervisors will request assistance from Altura Engineering and Design management regarding equipment operation which requires unique safety practice instructions.

Employees

Employees will follow Altura Engineering and Design' electrical safety policies and procedures and instructions of responsible supervisors and the Safety Coordinator.

Employees will bring to the attention of the supervisor or Safety Coordinator potential hazardous situations such as discrepancies between instruction, procedures, policies, faulty equipment, or misapplication of devices.

Electrical equipment known to be malfunctioning must be repaired or replaced before use. The repair must be initiated as soon as possible after the malfunction is noted.

Safety Coordinator

The Safety Coordinator will assist supervisors in defining hazardous operations, designating safe practices, and selecting proper application of devices.

When necessary, the Safety Coordinator will obtain from the principle supervisor standard operating procedures for electrical equipment and devices in use.

In coordination with Altura Engineering and Design management and other supervisors, the Safety Coordinator will review and approve standard operating procedures.

The Safety Coordinator will evaluate potential electrical hazards during facility inspections to ensure compliance with existing Altura Engineering and Design policy and other safety guidelines.

The Safety Coordinator will request support from Altura Engineering and Design management on hardware and equipment testing, tagging out of unserviceable equipment, and taking corrective action where necessary.

The following practices are to be followed by all employees:

Electrical Installations, Equipment, and Electrical Safety

Individuals

The user is responsible for obtaining necessary tools and safety equipment from the designated storage area, checking it for discrepancies, returning it to storage in good condition and identifying any faulty equipment to their supervisor. It will be the supervisor's immediate responsibility to replace any faulty safety equipment and notify the Safety Coordinator.

Eye protection is required during any electronic or electrical hardware repair, installation, or open front operation.

Electrical safety shoes, long sleeve non-polyester, low flammability shirts, and insulating gloves will be worn when operating or testing 600 volt or higher equipment.

A protective apron will be worn over polyester or other highly flammable clothing during soldering operations.

Emergency Procedures

In the event of a medical emergency (i.e., shock), contact a member of management, contact local emergency rescue units (911), and direct emergency rescue units to the scene. If there is a person nearby who has received First Aid/CPR training, they should be contacted immediately to give assistance.

Emergency Removal of Tag and Lock

In the event that maintenance work is being performed in accordance with Altura Engineering and Design's Control of Hazardous Energy Lockout/Tagout Program, and an emergency occurred in which the person responsible for removing the tag and lock cannot be located, the general supervisor or the manager of Altura Engineering and Design may remove the device in the presence of the Safety Coordinator. Details for removal are given in the Altura Engineering and Design's Control of Hazardous Energy Lockout/Tagout Program.

Hazards

The extreme hazard of electrical equipment is the potential for electrocution from contacting energized systems; protective shields, protective barriers or insulating materials as necessary shall be provided. When performing electrical work, employees shall wear the appropriate, electrical rated personal protective equipment (PPE). Conductive articles of jewelry and clothing (such as watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts.

When performing electrical work from a portable ladder, the ladder(s) shall have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts.

Electrical equipment can also cause catastrophic property damage because of its potential as an ignition source for causing fire or explosion.

Employees may not enter spaces containing exposed energized parts unless illumination is provided that enables the employees to work safely.

Overhead Powerlines - Minimum Approach Distances

If work is to be performed near overhead lines, the lines shall be deenergized and grounded, or other protective measures shall be provided before work is started. If the lines are to be deenergized, arrangements shall be made with the person or organization that operates or controls the electric circuits involved to deenergize and ground them. If protective measures, such as guarding, isolating, or insulating are provided, these precautions shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment.

Electrical Installations, Equipment, and Electrical Safety

When employees of Altura Engineering and Design are working in an elevated position near overhead lines, the location shall be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:

For voltages to ground 50kV or below - 10 ft. (305 cm).

For voltages to ground over 50kV - 10 ft. (305 cm) plus 4 in. (10 cm) for every 10kV over 50kV.

When employees are working on the ground in the vicinity of overhead lines, the employee may not bring any conductive object closer to unguarded, energized overhead lines than the distances stated above.

Control of Hazardous Energy (Lockout / Tagout)

The procedures specified in this section comply with the requirements for the isolation or control of hazardous energy sources set forth in the OSHA standard (29 CFR 1910.147). The accidental release of energy during maintenance work can and frequently does cause severe injuries, amputations, or death. Energy can be present in the form of electricity, potential energy (due to gravity) stored in elevated masses, chemical corrosivity, chemical toxicity, or pressure.

The only exceptions allowed by OSHA to these requirements are those situations involving "hot tap" or energized electrical work operations. For this exception to be valid, Altura Engineering and Design personnel involved must demonstrate that the continuity of services is essential, that shutdown of the energy source is impractical, and that documented (written) procedures and special equipment have been implemented that will provide proven effective protection. In the event that work on energized electrical components must be performed, the Energized Electrical Work Permit (EEWP) must be utilized. All safe practices must be followed and the proper PPE worn at all times. There is a sample flowchart at the end of this section to aid in determining if work on energized electrical components would require an Energized Electrical Work Permit (EEWP) to be completed. A sample of the Energized Electrical Work Permit can be found in the forms section of this manual.

These procedures apply to all maintenance or installation operations conducted on company premises.

Tagout Devices

Tags affixed to energy-isolating devices do not provide the physical restraint that a lock would provide. Any tag so attached to an energy-isolating device must not be removed without authorization of the person attaching it, and it must never be bypassed, ignored, or otherwise defeated. Tags must be legible and understandable in order to be effective. Tags must be made of materials that will withstand environmental conditions encountered in the workplace. When utilized, tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use. Tagout devices must be substantial enough to prevent inadvertent or accidental removal.

Tagout devices must warn against hazardous conditions if the machine or equipment is energized and must include appropriate warnings such as:

DO NOT START

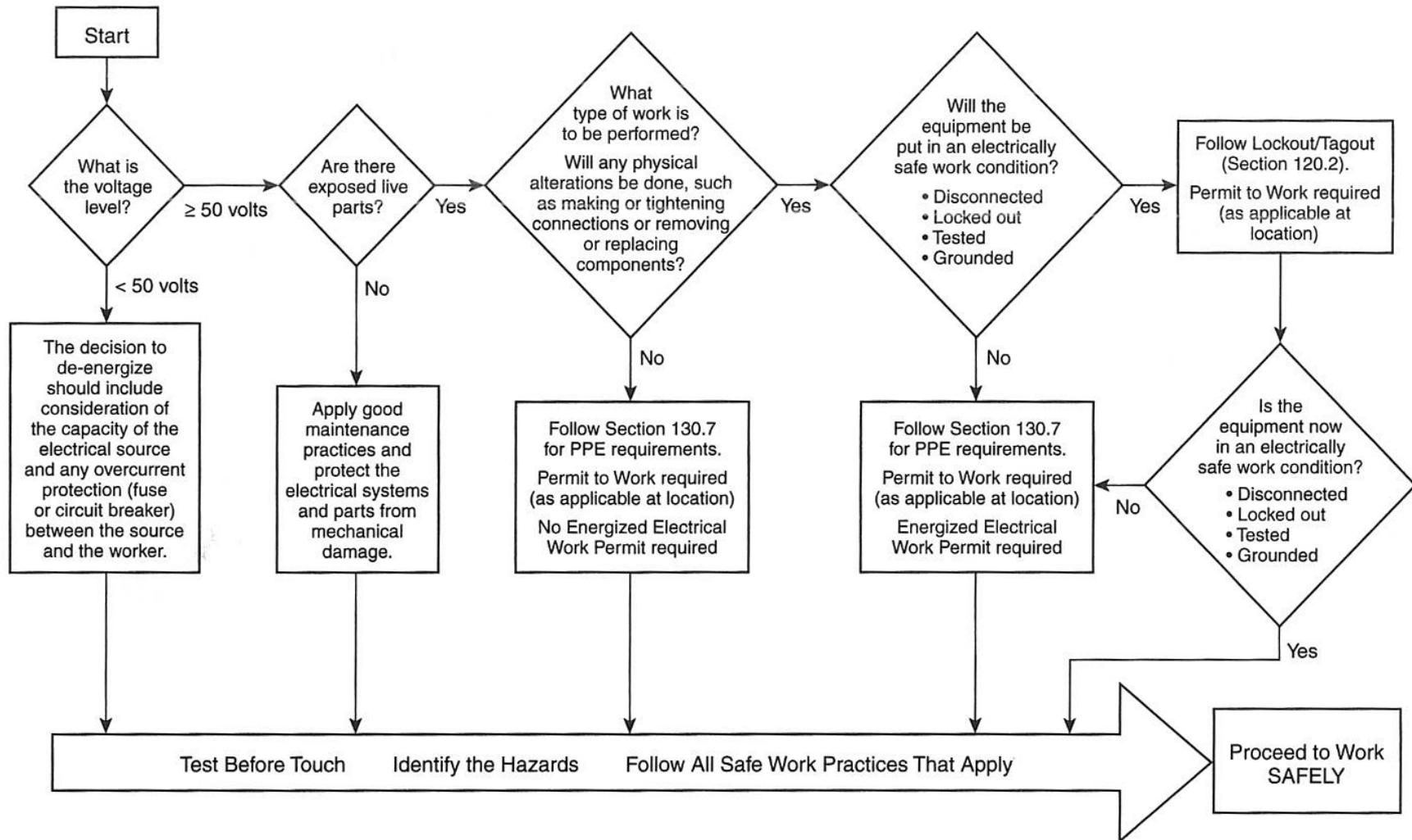
DO NOT ENERGIZE

DO NOT OPEN

DO NOT OPERATE

DO NOT CLOSE

Refer to Altura Engineering and Design' Control of Hazardous Energy Lockout/Tagout program for additional guidance.



Fall Protection Program

It is the policy of Altura Engineering and Design to take all practical measures possible to prevent employees from being injured by falls from heights. Altura Engineering and Design will take all necessary steps to eliminate, prevent, and minimize fall hazards. Altura Engineering and Design will comply fully with the OSHA regulations for protecting employees from fall hazards (CFR 1910, Subpart D – Walking and Working Surfaces, and CFR 1910, Subpart F – Powered Platforms, Manlifts, and Vehicle Mounted Work Platforms).

This policy will follow the OSHA standard for potential falls from heights of four (4) feet and more. First consideration will be given to the elimination of fall hazards. If a fall hazard cannot be eliminated, effective fall protection will be planned, implemented, and monitored to control the risks of injury due to falling.

All personnel exposed to potential falls from heights will be trained to minimize their exposures. Fall protection equipment will be provided and used by all employees. Managers will be responsible for implementation of a fall protection program for each job site.

Fall Hazard Identification and Evaluation Responsibilities

The Manager/Supervisor will evaluate each situation or work procedure where employees may be exposed to a fall of four (4) feet or more. The Manager/Supervisor will be responsible for developing a plan to eliminate the exposures, if possible, or to select the appropriate fall protection systems and/or equipment.

Examples of Situations Requiring Fall Protection

The following are examples of situations where fall protection will be required. This listing is by no means complete, and there are many other situations where a fall of four (4) feet or more is possible. It should be noted that ladders and scaffolding are not included in this list. They are covered by other OSHA standards and other requirements of our safety program.

Wall Openings

Any employee working near a wall opening (including those with chutes attached) where the outside bottom edge of the wall opening is four (4) feet or more from a lower level, or the wall opening is less than 39 inches (1.0 meter) above the walking/working surface below, will be protected from falling by the use of a guardrail system, a safety net system, or a personal fall arrest system.

Hoist Areas

Each employee in a hoist area will be protected from falling four (4) feet or more by guardrail systems or personal fall arrest systems. If guardrail systems (chain gate or guardrail) or portions thereof must be removed to facilitate hoisting operations, as during the landing of materials, and a worker must lean through the access opening or out over the edge of the access opening to receive or guide equipment and materials, that employee must be protected by a personal fall arrest system.

Ramps, Runways, Open-Sided Floor, Platform 4 Feet or More, Adjacent Floor or Ground Level

Each employee using ramps, runways, and other walkways will be protected from falling four (4) feet or more by guardrail systems.

Powered platforms, Man lifts, and Vehicle-Mounted Work Platforms

Each employee operating a man lift will be protected by the use of personal fall arrest systems. The rails will be standard guardrails with toe boards meeting the provisions of 29 CFR 1910.23.

Fall Protection Systems

When there is a potential fall of 4 feet or more, Altura Engineering and Design will utilize one or more of the following means of providing protection:

Guardrail Systems

Guardrail systems must meet the following criteria. Toprals and midrails of guardrail systems must be at least one-quarter inch nominal diameter or thickness to prevent cuts and lacerations. If wire rope is used for top rails, it must be flagged at not more 6 feet intervals with a high-visibility material. Steel and plastic banding will not be used as top rails or midrails. Manila, plastic, or synthetic rope used for top rails or midrails must be inspected as frequently as necessary to ensure strength and stability.

The top edge height of top rails, or (equivalent) guardrails must be 42 inches plus or minus 3 inches, above the walking/working level. When workers are using stilts, the top edge height of the top rail, or equivalent member, must be increased an amount equal to the height of the stilts.

Screens, midrails, mesh, intermediate vertical members, or equivalent intermediate structural members must be installed between the top edge of the guardrail system and the walking/working surface when there are no walls or parapet walls at least 21 inches high. When midrails are used, they must be installed at a height midway between the top edge of the guardrail system and the walking/working level. When screens and mesh are used, they must extend from the top rail to the walking/working level and along the entire opening between top rail supports. Intermediate members, such as balusters, when used between posts, will not be more than 19 inches apart.

Other structural members, such as additional midrails and architectural panels, will be installed so that there are no openings in the guardrail system more than 19 inches.

The guardrail system must be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction. When the 200-pound test is applied in a downward direction, the top edge of the guardrail must not deflect to a height less than 39 inches above the walking/working level.

Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members will be capable of withstanding a force of at least 150 pounds applied in any downward or outward direction at any point along the midrail or other member.

Guardrail systems will be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging.

The ends of top rails and midrails must not overhang terminal posts, except where such overhang does not constitute a projection hazard.

When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section must be placed across the access opening between guardrail sections when hoisting operations are not taking place.

At holes, guardrail systems must be set up on all unprotected sides or edges. When holes are used for the passage of materials, the hole will have not more than two sides with removable guardrail sections. When the hole is not in use, it must be covered or provided with guardrails along all unprotected sides or edges.

If guardrail systems are used around holes that are used as access points (such as ladder ways), gates must be used or the point of access must be offset to prevent accidental walking into the hole.

If guardrails are used at unprotected sides or edges of ramps and runways, they must be erected on each unprotected side or edge.

Personal Fall Arrest Systems

These consist of an anchorage, connectors, and a body harness and may include a deceleration device, lifeline, or suitable combinations. If a personal fall arrest system is used for fall protection, it must do the following:

- Limit maximum arresting force on an employee to 1,800 pounds when used with a body harness
- All personal fall arrest systems will be inspected before each use by the employee
- Only nylon rope or nylon straps with locking snap hooks are to be used for restraints
- All lanyards will have self-locking snap hooks
- Be rigged so that an employee can neither free fall more than 6 feet nor contact any lower level
- Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet
- Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet or the free fall distance permitted by the system, whichever is less.

The use of body belts for fall arrest is prohibited and a full body harness is to be required.

Personal fall arrest systems must be inspected prior to each use for wear damage, and other deterioration. Defective components must be removed from service.

Calculating Total Distance

It is the total length of shock absorbing lanyard + height of the person + the location distance of the D-ring from the work surface or platform.

Always allow a minimum of 6 feet of clearance above the ground, equipment, etc., at the end of the fall from the fall arrest point.

Positioning Device Systems

These body belt or body harness systems are to be set up so that workers can free fall no farther than 2 feet. They will be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds, whichever is greater.

Covers

Covers located in roadways and vehicular aisles must be able to support at least twice the maximum axle load of the largest vehicle to which the cover might be subjected. All other covers must be able to support at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time. To prevent accidental displacement resulting from wind, equipment, or workers' activities, all covers must be secured. All covers will be color-coded or bear the markings "HOLE" or "COVER."

Protection from Falling Objects

When guardrail systems are used to prevent materials from falling from one level to another, any openings must be small enough to prevent passage of potential falling objects. In general, toe boards are required around all catwalks, and catwalks must have two guardrails.

Training

Employees will be trained in the following areas:

- a) The nature of fall hazards in the work area;
- b) The correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems;
- c) The use and operation of controlled access zones and guardrail, personal fall arrest;
- d) The correct procedures for equipment and materials handling and storage and the erection of overhead protection; and,
- e) The Employees' role in fall protection plans.

Accident Fall Investigation

In the event an employee falls, or some other related, serious incident occurs, (e.g., a near miss) the employer will investigate the circumstances of the fall or other incident to determine if the fall protection program needs to be changed. All fall investigations will be conducted by the supervisor and/or the Safety Coordinator.

The following documentation will be completed as part of the fall investigation:

- a) Interviews with employee and witnesses
- b) Employee injury/accident report
- c) Supervisor injury/accident report

Rescue Procedures

Rescue Methods/Options of Fallen Personnel

In the unlikely event that a fall arrest occurs, all employees will be rescued by on-site personnel with the use of a man lift, scissor lift or ladders where feasible. Alternate rescue would be through the local emergency services.

Enforcement

Altura Engineering and Design has established rules, requirements, policies and procedures for the protection of its employees, the company, and the general public. It is the intent of Altura Engineering and Design to enforce these policies uniformly. Enforcement may require that Altura Engineering and Design impose disciplinary consequences for violations of these rules. Altura Engineering and Design personnel functioning as health and safety and supervisors, are responsible for the equal enforcement of company policies, including this disciplinary policy.

Written Warnings

Written warnings help employees learn how they can improve their performance. Altura Engineering and Design may issue written warnings that explain the violation and a statement of the actions that need to be taken or results that need to be achieved to avoid further problems. Any employee who receives a written warning must immediately acknowledge receipt by signing the warning. An employee who disagrees with the warning may state their disagreement on the written warning notice when it is issued. An employee who believes that a supervisor has not responded fairly to the employee's comments may contact the supervisor's manager.

Safety violation notice(s) will be issued to any employee on the job site violating the fall protection safety rules or regulations.

- a) Subject to discipline.
- b) Documentation of any violations will be kept in the employee's personnel file.
- c) Any employee not following the fall protection program, or a portion of this procedure will be subject to disciplinary action.
- d) Any employee receiving three (3) written warnings may be grounds for termination within (1) years' time of the first written warning.

This disciplinary policy is for informational purposes only and does not in any way bind Altura Engineering and Design to follow a particular course of conduct, except when state or federal law requires otherwise. Altura Engineering and Design, in its sole discretion, may change these policies at any time. Nothing in the policies changes the at-will nature of the employment relationship between an employee and Altura Engineering and Design. An employee may still be terminated with or without cause, with or without notice, at the option of either Altura Engineering and Design or the employee, except as otherwise provided by law.

Working Safely at Elevations

These procedures are designed to prevent the injury of Altura Engineering and Design personnel due to falls or slips any time personnel are working on portable stairs, ladders, or scaffolding or at elevations of more than four feet above grade. Applicable OSHA standards include 29 CFR 1910.21-68.

Barricades

Whenever a common area is disturbed by maintenance, repair, or construction operations and present a hazard to personnel working in or near or traveling through the area, care will be taken to warn these personnel and other engineering series personnel of the potential hazard. Appropriate barriers will be erected around excavations, open manholes or open electrical panels whenever they are to be left unattended.

Written Warning Form

Employee's name: _____

Date of conversation: _____

Specific rule violation or performance problem:

Previous conversations about the rule violation or performance problem:

Specific change in the employee's performance or behavior that is expected:

Employee's comments:

Supervisor's comments:

Employee's signature: _____

-or-

Employee was asked to sign this written warning on _____ but declined to sign.

Supervisor's signature: _____

Date: _____

Fall-Hazard Checklist

Use this checklist to identify fall-hazard areas at your worksite.

Check all boxes that apply. Check "Yes" if hazards exist at your worksite; check "N/A" if not.

Fall-Protection Systems Training Checklist

Use this checklist to identify the fall-protection system training each worker received at your facility.

Name of worker: _____ Date: _____

Fall-protection system	Training received				
	N/A	Installation	Maintenance	Inspection	Disassembly
Inspection(s)					
Guardrail systems					
Personal fall-arrest systems					
Covers					
Fences and barricades					

Working Safely at Elevations

These procedures are designed to prevent the injury of Altura Engineering and Design personnel due to falls or slips any time personnel are working on portable stairs, ladders, or scaffolding or at elevations of more than four feet above grade. Applicable OSHA standards include 29 CFR 1910.21-.68.

Ladders

Hazards

Falls are the primary hazard associated with the use of ladders. Falls result from a number of unsafe acts and conditions such as ladders being set on unstable surfaces, personnel reaching too far out to the sides, personnel standing too high to maintain balance, or personnel using defective ladders.

These hazards are minimized if workers adhere to proper ladder safety practices and if supervisors ensure equipment is used, inspected, and maintained in good condition. Tasks which require frequent use of ladders and involve significant climbing effort must be accomplished by workers capable of the physical exertion required under these conditions.

Ladder Requirements

Portable ladders procured for Altura Engineering and Design will meet the design and construction specification of OSHA 29 CFR 1910.25 for wood ladders and 29 CFR 1910.26 for metal ladders. Portable ladders constructed of reinforced plastic will meet the specifications of ANSI A14.5-1974.

The maximum allowable lengths of portable commercial type II ladders are 3-12 feet for stepladders, 12 feet for platform stepladders, 20 feet for straight ladders, and 36 feet (with a minimum overlap of 3 feet) for extension ladders.

Wooden parts used in construction of ladders should be straight-grained, thoroughly seasoned, smoothly dressed, and free of sharp edges, splinters, checks, decay, and other defects. Rungs must be parallel, level and uniformly spaced. The spacing will not be more than twelve inches.

Wooden ladders will be coated with a suitable protective coating such as boiled linseed oil, clear varnish, or clear lacquer. Wood ladders will not be painted with an opaque coating since possible defects may be covered up.

Portable ladders will be equipped with non-slip bases such as safety feet or spikes depending upon the type of usage.

Personnel will not use portable metal ladders when performing work on or near electrical equipment. The side rails of metal ladders will be stenciled in two-inch (or smaller is necessary to fit on the side rails) red letters: "DANGER - DO NOT USE AROUND ELECTRICAL EQUIPMENT". Wood or reinforced plastic ladders will be used for work on or near electrical equipment. They will be kept clean. Remove all surface buildup or dirt, grease, or oils to avoid creating a ready path for electrical current.

Handle ladders with care. Do not drop, jar, or misuse them. Ladders will be stored in a manner that will provide easy access for inspection and will permit safe withdrawal for use. They will not be stored in a manner that presents a tripping hazard nor where they can fall on someone. They should be stored in a manner that will prevent sagging.

Lubricate metal bearings of locks, wheels, or pulleys as required to keep them working. Replace frayed or badly worn rope. Keep safety feet and other parts in good condition to ensure they work. Maintain ladders in good usable condition. Inspect ladders prior to use.

Ladders with defects which cannot be immediately repaired, will be removed from service for repair or destruction, and will be tagged with a danger tag. Do not attempt to straighten or use a bent ladder made of reinforced plastic. Rungs or steps on metal ladders that are not corrugated, knurled, or dimpled will have skid-resistant materials applied.

Proper Use of Ladders

When possible, portable non-self-supporting ladders will be used at such a pitch that the base of the ladder is placed a distance from the vertical wall that is one-fourth of the working length of the ladder. The ladder will be placed to prevent slipping, or it will be lashed or manually held in position.

Ladders will not be used by more than one person at a time. Ladders specially designed to support greater loads will be used in combination with ladder jacks and scaffold planks when an operation requires more than one person.

Place portable ladders so that the side rails have a secure footing. The top rest for portable rung and cleat ladders will be reasonably rigid and will have adequate strength to support the applied load.

Ladders will not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded.

Do not place ladders on boxes, barrels, or other unstable bases to obtain additional height.

To support the top of the ladder at a window opening, attach a board across the back of the ladder extending across the window to provide firm support against the building walls or window frames.

When ascending or descending, users will face the ladder and use both hands.

Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other defects will not be used. Do not make improvised repairs.

Do not splice short ladders together to provide long sections.

Do not use ladders made by fastening cleats across a single rail.

Do not use ladders as braces, skids, horizontal platforms or scaffolds, or for anything other than their intended purposes.

Do not use a ladder to aid access to a roof unless the top of the ladder extends at least three feet above the point of support at eave, gutter, or roof line.

Always raise extension ladders so that the upper section overlaps and rests on the bottom section. The upper section will always overlap on the climbing side of the extension ladder.

Non-slip bases are not intended as a substitute for care in safely placing, lashing, or holding a ladder that is being used on oily, metal, concrete, or slippery surfaces.

The bracing on the back legs of step ladders is designed solely for increasing stability and not for climbing.

Hooks may be attached at or near the top of ladders to provide added stability.

When the ladder can be knocked over by others who are working in the area, the ladder will be securely fastened. As an alternative, someone will be assigned to steady the bottom, or the area around the ladder will be roped off. Workers will not stand higher than the third rung from the ladder top and will not attempt to reach beyond a normal arm's length.

Scaffolding and Elevated Platforms

Only tube and coupler or tubular scaffolding will be used by Altura Engineering and Design personnel. It will be erected according to OSHA standards as specified in 29 CFR 1910.22, .23, and .28.

All platforms or scaffolds will be inspected by the supervisor before use.

All elevated platforms will be surrounded by a standard guardrail, securely fastened to a stationary object, and have a floor capable of withstanding a working load of 75 pounds per square foot.

Scaffolds with wheels constructed on the base (bottom) section will not be used unless all wheels are intact and at least one wheel on each side is locked to prevent movement.

Know scaffolding safety rules prior to set up, during operations, and for dismantling of scaffolding. Ensure manufacturer's instructions and safety warnings are legible and remain on scaffolding.

Keep equipment in good repair. Inspect the equipment before use for damage or deterioration.

Inspect erected scaffolds regularly to ensure they are maintained in a safe condition.

Provide adequate sills and posts and use base plates.

Anchor wall scaffolds securely between structure and scaffold.

Use caution when working near power lines. Never be any closer than ten feet to electrical power lines.

Use adjusting screws instead of blocking to adjust for uneven grades. Use outriggers where so equipped.

Equip all planked areas with proper guardrails and toe-boards.

Do not ride rolling scaffolding. Do not try to move rolling scaffolding without help.

Do not leave materials and equipment on the platform when moving scaffolding.

Do not extend adjusting screws over twelve inches.

Do not let working platform height exceed four times the smallest base dimension unless guyed or otherwise stabilized.

Do not overload scaffolds.

Do not use ladders or makeshift devices on top of scaffolds to increase height.

Ensure the footing and anchorage for scaffolds are sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Do not use unstable objects such as barrels, boxes, loose bricks, or concrete blocks to support scaffolds or planks.

Ladder Safety Training Policy

The purpose of the Ladder Safety Training Policy is to complement Altura Engineering and Design' fall protection training program by setting proper procedures that all employees must follow when working with ladders and stairs in order to prevent accidents from occurring in the worksite. Each employee will receive the appropriate training in these procedures and strictly adhere to them except when doing so would expose the employee to a greater hazard. This procedure is designed to protect all employees from hazards associated with the installment, care and use of portable as well as fixed ladders and stairs in order to ensure safety under normal conditions of use.

Altura Engineering and Design is committed to providing a safe and healthy work environment for all employees. In pursuit of this goal, this procedure provides the minimum requirements to ensure that the Ladder Safety Program is successfully and consistently implemented. Those regulations applicable to Altura Engineering and Design are included in this written plan; however, it is recommended to review all applicable OSHA and ANSI regulations and standards prior to installing and/or using ladders.

Responsibilities

Safety Coordinator

- Develop and coordinate the implementation of the overall Ladder Safety Program
- Provide training and written instructions for the installment, care and use of ladders and stairs.
- Conduct periodic inspections and evaluations to determine the continued effectiveness of the program.
- Implementation of the Ladder Safety Program.
- Enforce the care, use and storage procedures of ladders and stairs as outlined in this program.

Employees

- Comply with the procedures outlined within Altura Engineering and Design' Ladder Safety program
- Properly select, use, handle, and store ladders in accordance with the instructions and training received.
- Thoroughly inspect and maintain ladders before and after use.
- Report any hazards observed, which could compromise personal safety or the safety of others, to their supervisor immediately.

Definitions

Cleat: Ladder crosspiece of rectangular cross section placed on edge upon which a person may step while ascending or descending a ladder.

Single-Cleat Ladder: Ladder consisting of a pair of side rails, connected together by cleats, rungs, or steps.

Double-Cleat Ladder: Ladder similar in construction to a single-cleat ladder, but with a center rail to allow simultaneous two-way traffic for employees ascending or descending.

Extension Ladder: Self-supporting portable ladder, adjustable in length consisting of a trestle ladder base and a vertically adjustable extension section, with a suitable means for locking the ladders together.

Fixed-Ladder: Ladder that cannot be readily moved or carried because it is an integral part of a building or structure. A side-step fixed ladder is a fixed ladder that requires a person getting off at the top to step to the side of

the ladder side rails to reach the landing. A through fixed ladder is a fixed ladder that requires a person getting off at the top to step between the side rails of the ladder to reach the landing.

Handrail: Rail used to provide employees with a handhold for support.

Rung/Step Ladders: Ladders without a side rail or center rail support. Such ladders are made by mounting individual steps or rungs directly to the side or wall of the structure.

Max Intended Load: Total load of all employees, equipment, tools, materials, transmitted loads, and other loads anticipated to be applied to a ladder component at any one time.

Point of Access: All areas used by employees for work related passage from one area or level to another. Such open areas include doorways, passageways, stairway openings, studded walls, and various other permanent or temporary openings used for such travel.

Portable Ladder: Ladder that can be readily moved or carried.

Riser Height: Vertical distance from the top of a tread to the top of the next higher tread or platform/landing or the distance from the top of a platform/landing to the top of the next higher tread or platform/landing.

Tread Depth: Horizontal distance from front to back of a tread.

Portable Ladders Types

Portable ladders are designed to support one person along with all necessary equipment (tools, materials, etc.). Ladders are constructed under three general classes and the correct ladder must be selected on the type of work and load capacity of the ladder. The following are the general classes:

- Type I - Industrial: heavy-duty with a load capacity not more than 250 pounds.
- Type II - Commercial: medium-duty with a load capacity not more than 225 pounds.
- Type III - Household: light-duty with a load capacity of 200 pounds.
- Type 1A – Extra-heavy industrial ladder that can support 300 lbs.
- Type 1AA – Extra-heavy industrial ladder that can support 375 lbs.

Safe Ladder Practices

- The ladder chosen must be long enough to provide access to the work area without having the employees stand on the top 2 steps of a step ladder or the top 3 rungs of a straight ladder.
- When a straight ladder is used to gain access to an upper landing surface, the side rails should extend at least three feet above the support point at the eave, gutter, or roof line.
- Ensure rungs and cleats are evenly spaced and parallel per OSHA standards while in use.
- Always use ladders on level, stable surfaces (i.e. the ground).
- Do not use ladders on slippery surfaces.
- Use ladders only for their intended purpose (i.e. do not use as scaffolding, etc.)
- When working with electrical equipment, use only fiberglass or wooden ladders, never metal.
- Use the four-to-one (4:1) ratio when using a ladder. To do this, place the ladder so its base is one foot away from what it leans against for every four feet in height to the point where the ladder rests.

Ladder Safety Training Policy

- Where possible, straight ladders should be secured with a rope or wire at the top and blocked at the bottom.
- Do not over-reach, jump or slide a ladder while on it. As a general rule, keep your belt buckle between the rails at all times when on a ladder. Never put one foot on the ladder and the other on an adjacent surface. Ladders will not be moved, shifted, or extended while occupied.
- Always face the ladder and keep three points of contact on the ladder at all times (i.e. both hands and one leg or two legs and one hand)
- Do not carry heavy loads up or down ladders. Tools or materials should be raised by means of a rope after the climber has reached the working position.
- Barricades and warning signs should be posted when ladders are placed near doors or other locations where they could be struck.
- Ladders should not be used by more than one person at a time unless they are designed for such use.
- Extension ladders must have proper overlap.
 - 3 ft. overlap for 0 to 32-foot ladder
 - 4 ft. overlap for 32 to 36-foot ladder
 - 5 ft. overlap for 36 to 48-foot ladder
 - 6 ft. overlap for 48-foot ladder
- Both automatic locks of the extension ladder are to be in proper position before ascending the ladder.
- The area around the top and bottom of the ladder will be kept clear at all times.

Inspection

Prior to use of any ladder, a visual inspection must be performed. Never use a defective ladder. If the ladder is found to be defective, tag or mark it so that it will be repaired or destroyed. Always refer to the manufacturer's specifications for further details on inspecting and maintaining ladders. The following items should always be observed during visual inspections:

- Carefully examine the ladder for broken or missing rungs or cleats, broken side rails, and other damaged parts.
- All cleats, rungs, and side rails must be free of grease, oil, paint, or other slippery substances.
- The ladder should be equipped with feet that are secured in place.
- The joint between steps and side rails must be tight, and all hardware and fittings should be attached firmly. Movable parts should operate freely without binding.
- All wood parts must be free of sharp edges and splinters.
- Visually inspect the ladder to be free of decay or other irregularities.
- Metal ladders must be free of sharp edges, burrs and corrosion.
- Inspect for dents or bends in side rails, rungs or cleats.
- Check step to side rail connections, hardware connections and rivets.
- If a ladder tips over, inspect the ladder for damage before continuing work.

Maintenance

- Damaged ladders must be tagged or marked and withdrawn from service and either repaired or destroyed. Notify the supervisor immediately.
- Fiberglas ladders should have a surface coat of lacquer maintained. If it is scratched beyond normal wear, it should be lightly sanded before applying a coat of lacquer.
- Field repairs and the fabrication of improvised ladders are not permitted.
- Never use or try to straighten a bent or bowed ladder. Remove it from service immediately.
- Wood ladders should be protected with a clear sealer varnish, shellac, linseed oil or wood preservative. Wood ladders should not be painted because the paint could hide defects.

Ladder Safety Training Policy

- If exposed to greases, oils or other slippery substances, the ladder must be cleaned. If the substance cannot be completely removed, the ladder must be removed from service.

Storage

Ladders should be stored in areas free of known hazards, where they can be inspected easily and can be reached without causing accidents. The preferred storage method is to secure ladders to a wall mounted brace.

Training

Employees will be trained on all of the rules and regulations pertaining to ladder and stair safety, including the proper installment, care, use and handling, and storage. Additional training will be conducted in response to the following circumstances:

- Whenever changes in the workplace or this procedure render previous training obsolete.
- When inadequacies in the employee's use and handling indicate that the employee has not retained the requisite understanding or skill.
- When any other situations arise in which retraining appears necessary to ensure the proper installment, care, use and handling, and storage.

Aerial Lift Policy

Purpose

This Aerial Lift Policy is designed to achieve compliance with Occupational Safety & Health Administration (OSHA), Aerial Work Platforms. This standard applies to the construction, operation, maintenance and inspection of manual and powered aerial work platforms.

Scope & Application

This program applies to all Altura Engineering and Design employees using aerial work platforms. Outside contractors using aerial work platforms must also comply with this program or have an equivalent program. Outside contractors must provide the contracting department with a copy of their program prior to performing the required work.

Policy

Prior to using an aerial work platform, the aerial lift procedures which follow, shall be implemented to ensure employees are protected from the hazards associated with aerial work platforms.

Responsibilities

Supervisors:

- Shall implement procedures in accordance with the Aerial Work Platforms Program.
- Shall develop written Standard Operation Procedures for all aerial lifts.
- Ensure employees are trained and aware of this Program.
- Shall ensure employees are informed, trained, and provided with the appropriate fall protection systems and equipment to be protected from potential fall hazards associated with job tasks.
- Shall promptly investigate and report all on-the-job accidents or near misses.
- Contact the Safety Coordinator to request technical assistance and to evaluate health and safety concerns.

Employees:

- Shall comply with this Program and all departmental Standard Operating Procedures.
- Shall wear appropriate fall protection equipment when required.
- Shall inspect all fall protection equipment prior to use.
- Shall use aerial lift inspection check list.
- Shall report any accidents, near misses or job-related injuries or illnesses to their supervisor and seek prompt medical treatment, if necessary.
- Shall participate in the required training.

Construction

Aerial lifts used at Altura Engineering and Design shall be in compliance with the requirements of the following applicable American National Standards Institute standard:

- ANSI standard A92.2-1990, "Vehicle-Mounted Elevating and Work Platforms"
- ANSI standard A92.3-1990, "Manually Propelled Elevating Work Platforms"
- ANSI standard A92.5-1992, "Boom-Supported Elevating Work Platforms"
- ANSI standard A92.6-1999, "Self-Propelled Elevating Work Platforms"

Aerial work platforms shall not be field-modified for uses other than those intended by the manufacturer unless the modification has been certified in writing by the manufacturer. Directional controls shall be in compliance with all of the following:

- Be of the type that will automatically return to the off or neutral position when released.
- Be protected against inadvertent operation.
- Be clearly marked as to their intended function.

An overriding control shall be provided in the platform which must be continuously activated for platform directional controls to be operational and which automatically returns to the off position when released.

Aerial work platforms shall be equipped with emergency controls at ground level. Emergency ground level controls shall be clearly marked as to their intended function and be capable of overriding the platform controls. All of the following information shall be clearly marked in a permanent manner on each aerial work platform:

- Special warnings, cautions, or restrictions necessary for operation.
- Rated work load.
- A clear statement of whether or not the aerial work platform is electrically insulated.

Rotating shafts, gears and other moving parts that are exposed to contact shall be guarded. Attachment points shall be provided for fall protection devices for personnel who occupy the platform on vehicle-mounted and boom-supported elevating work platforms.

Inspection, Maintenance & Testing

Each aerial work platform shall be inspected, maintained, repaired and kept in proper working condition in accordance with the manufacturer's or owner's operating or maintenance and repair manual(s). Daily and weekly inspections shall be conducted by the operator(s). Monthly, quarterly, and semi-annual inspections shall be conducted and/or overseen by the supervisor. Lift controls shall be tested each day prior to use. Any aerial work platform found not to be in a safe operating condition shall be removed from service until repaired. All repairs shall be made by an authorized person in accordance with the manufacturer's or owner's operating or maintenance and repair manual(s).

If the aerial work platform is rated and used as an insulated aerial device, the electrical insulating components shall be tested for compliance with the rating of the aerial work platform according to ANSI standard A92.2-1990. Testing shall comply with all of the following:

- The test shall be performed not less than annually.
- Written, dated and signed test reports shall be maintained and readily available for inspection.
- The insulated portion of an aerial device shall not be altered in any manner that might reduce its insulating value.
- All danger, caution, and control markings and operational plates shall be legible and not obscured.

Training

Each employee who will operate an aerial work platform shall receive instruction and training regarding the specific equipment before a permit is issued or reissued. The instruction and training shall ensure each operator is in compliance with the minimum following provisions:

- Is instructed by a qualified person in the intended purpose and function of each of the controls.
- Is trained by a qualified person or reads and understands the manufacturers or owner's operating instructions and safety rules.
- Understands by reading or by having a qualified person explain, all decals, warnings and instructions displayed on the aerial work platform.
- Reads and understands the provisions of this section and the permit section or is trained by a qualified person on their content.
- Only authorized person shall operate an aerial lift.

The manufacturer's operating instructions and safety rules shall be provided and maintained in a legible manner on each aerial work platform. Employees shall demonstrate competence in operation of the aerial lift prior to being issued a permit.

Pre-Operational Procedures

Before use on each work shift, the operator of an aerial work platform shall conduct a visual inspection of the aerial lift to check for defects that would affect its safe operation and use. The inspection shall consist of not less than **all** of the following procedures:

- Bent or broken structural members
- Hydraulic or fuel leaks
- Damaged controls and cables
- Loose wires
- Tire condition
- Fuel and hydraulic fluid levels
- Slippery conditions on the platform

Operate all platform and ground controls to ensure they perform their intended functions.

Before the aerial work platform is used and during use, the operator shall use the Daily Aerial Lift Inspection Form and also inspect for **all** of the following:

- Ditches
- Drop-offs
- Holes
- Bumps and floor obstructions
- Debris
- Overhead obstructions
- Power lines
- Any similar conditions to those listed above
- Area around the aerial work platform to assure clearance for the platform and other parts of the unit
- All unsafe items found as a result of the inspection of the aerial work platform or work area shall be corrected before further use of the aerial work platform.
- Any overhead wire shall be considered to be an energized line until the owner of the line or his/her authorized representative ensures that it is de-energized.

When electrical clearances cannot be maintained, the equipment shall not be used.

Operating Procedures

The aerial work platform shall be used only in accordance with the manufacturers or owner's operating instructions and safety rules. Unauthorized personnel are prohibited from operating an aerial lift.

When operating aerial work platforms or other equipment under, over, by or near energized electric power lines the following clearances shall be maintained:

- For lines rated 50 kV, or below, minimum clearance between lines and any part or load shall be 10 feet.
- Where work is performed from an insulated aerial device which is insulated for the work and the work is performed in accordance with the provisions of the OSHA construction safety standards.
- Proximity warning devices may be used, but shall not be used instead of meeting the requirements contained above.
- The manufacturer's rated load capacity shall not be exceeded. The operator shall ensure the load and its distribution on the platform are in accordance with the manufacturer's specifications. The aerial work

platform rated load capacity shall not be exceeded when loads are transferred to the platform at elevated heights.

- Only personnel, their tools and necessary materials shall be on or in the platform. Secure tools and other loose items to prevent injury to persons working on or below the platform.
- Vehicle shall have a reverse signal alarm audible above the surrounding noise level.

The guardrail system of the platform shall not be used to support any of the following:

- Materials
- Other work platforms.
- Employees.
- Personnel shall maintain firm footing on the platform while working on the platform. The use of railings, planks, ladders or any other devices on the platform for achieving additional height is prohibited.
- Fuel gas cylinders shall not be carried on platforms that would allow the accumulation of gases.
- Appropriate fall protection (harness with a lanyard) shall be provided to and used by any occupant of a vehicle-mounted and/or boom-supported elevating work platform.
- A body belt may be used with a restraint device with the lanyard and the anchor arranged so that the employee is not exposed to any fall distance. A restraint device is required where the aerial lift cannot withstand the vertical and lateral loads imposed by an arrested fall.
- Belting off to an adjacent pole, structure or equipment while working from an aerial work platform is prohibited.
- Employees shall not exit an elevated aerial work platform, except where elevated work areas are inaccessible or hazardous to reach. Employees may exit the platform with the knowledge and consent of their supervisor. When exiting to unguarded work areas, fall protection shall be provided and used.
- Only aerial work platforms that are equipped with a manufacturer's installed platform controls for horizontal movement shall be moved while in the elevated position.

Before and during driving while elevated, an operator of a platform shall look in the direction of and keep a clear view of the path of travel and make sure that the path is firm and level. The operator shall also keep a safe distance from all of the following:

- Obstacles
- Debris
- Drop-offs
- Holes
- Depressions
- Ramps
- Overhead obstructions
- Overhead electrical lines
- Other hazards to safe elevated travel
- Pedestrian traffic

Outriggers or stabilizers, when provided, are to be used in accordance with the manufacturer's instructions. Outriggers and stabilizers shall be positioned on pads or a solid surface.

Aerial work platforms shall be elevated only when on a firm and level surface or within the slope limits allowed by the manufacturer's instructions. A vehicle mounted aerial work platform shall have its brakes set before elevating the platform.

A vehicle mounted aerial work platform shall have wheel chocks installed before using the unit on an incline. Climbers shall not be worn while performing work from an aerial work platform. Platform gates shall be closed while the platform is in an elevated position. Stunt driving and horseplay are prohibited. Altering, modifying or disabling safety devices or interlocks is prohibited.

A platform operator shall ensure that the area surrounding the aerial work platform is clear of personnel and equipment before lowering the platform.

Before and during travel, an operator shall do **all** of the following:

- Inspect to see that booms, platforms, aerial ladders, or towers are properly cradled or secured.
- Ensure that outriggers are in a stored position.
- Limit travel speed according to the condition of the surface, congestion, slope, location of personnel and other hazards.

The aerial work platform shall not be positioned against another object to steady the platform. The aerial work platform shall not be operated from a position on a truck, trailer, scaffold or similar equipment. The boom and platform of the aerial work platform shall not be used to move or jack the wheels off the ground unless the machine is designed for that purpose by the manufacturer. If the platform or elevating assembly becomes caught, snagged or otherwise prevented from normal motion by adjacent structures or other obstacles such that control reversal does not free the platform, all personnel shall be removed from the platform before attempts are made to free the platform.

Climbing down the beams assembly (arm set) if the aerial lift fails while the platform is raised is prohibited. Two persons shall be present whenever the aerial lift is used. Employees shall always stand firmly on the floor of the basket and shall not sit or climb on the edge of the basket or use planks, ladders or other devices for a work position.

Persons using alcohol or drugs or who experience dizziness, seizures or who have a fear of heights shall not operate an aerial lift.

Work Alone Policy

Purpose

The practices in this Work Alone policy has been implemented to ensure the safety and protection of Altura Engineering and Design employees in the event an employee is required to travel or work alone at remote locations where there is no routine interaction with other people. This policy describes the responsibilities and actions to be taken to protect employees in the event they have to work alone or in isolation.

Scope

This procedure applies to all Altura Engineering and Design operations.

Policy

It is Altura Engineering and Design standard policy that employees normally do not work alone; all efforts will be made to implement a “buddy system” or team approach to all work performed. In the event situations are to arise that would require an employee to work alone, management shall be consulted and work may proceed only if approved after a risk assessment is conducted and it is determined that working alone can be conducted without increased risk to the worker. Altura Engineering and Design shall take all reasonably practicable steps to reduce, eliminate, or control identified and potential risks to workers who work alone or in isolation. Working alone practices shall include, but not be limited to:

- Specific controls for identified hazards
- Effective communication devices/systems
- An escalation strategy for when contact with a worker is lost
- Rules setting out types of work that cannot be completed while working alone, including, but not limited to:
 - Confined Space Entry work
 - Certain High Voltage electrical work
 - Certain Open System work
 - Certain Energized substation work
 - Work in excavations
 - Work where the use of fall arrest equipment at heights over 4 feet is required
 - Working with quick acting toxic materials (identified by the Safety Data Sheet (SDS))
 - Using supplied air equipment or SCBA
 - Work involving a risk of drowning
 - Work on equipment that cannot be locked out once a guard or other safety mechanism is removed
 - Operation of any motorized or manual materials handling equipment with an obstructed view

The practices shall also ensure that workers do not work alone in hazardous conditions unless appropriate safety precautions are taken, which may include but are not limited to:

- Personal Atmospheric Monitoring.
- Protection from weather conditions.
- Frequent communication at specific intervals.

Workers shall not work alone in conditions that are or may be considered Immediately Dangerous to Life and Health (IDLH).

A Hazard Assessment should be conducted for the work to be performed prior to any employee working alone. The hazard assessment shall address hazards and identify control measures in order to minimize risk associated with working alone including:

- The hazards for each type of work performed.
- The hazards for each worksite where workers will potentially work alone.

- The length of time the worker is out of contact.
- Factors and considerations to ensure the availability of help.

Key Responsibilities

Employer

- Develop and implement site/task specific safe work procedures to eliminate or reduce the identified risks to workers working alone or working in isolation.
- Train workers in the safe work procedures.
- Ensure that workers comply with the safe work procedures.
- Implement a check-in procedure that involves verifying effective means of communications (i.e., cell phone coverage, radios, etc), and the employee being contacted on regularly scheduled intervals to verify status.
- Review and revise the procedures not less than every three years or sooner if circumstances at a workplace change in a way that poses a risk to the safety or health of a worker working alone or in isolation.

Supervisors

- Ensure employees follow the safe work procedures set out by the employer.
- Ensure every vehicle is fitted with a personal First Aid kit.
- Ensure that a Hazard Assessment of the work to be performed has been completed.
- Ensure that check-ins with the lone employee occur as outlined in this policy.

Employees

- Take reasonable care/precautions to look after their own health and safety.
- Ensure that an effective means of communications (examples listed below) is available to establish contact between the employee and a designated contact
- “Check-in/check-out” at the pre-determined intervals
- Safeguard the health and safety of other people affected by their work.
- Cooperate and comply with the health and safety procedures set out by the employer.
- Use tools and other equipment properly in accordance with relevant safety instructions and any training received.
- Ensure to report any accidents, injuries, near misses, and other dangerous occurrences.

If at any time an employee feels the work to be performed or the working conditions are unsafe, the employee shall exercise their stop work authority as outlined in Altura Engineering and Design's Stop Work Authority policy.

Working Alone Controls

Working alone controls may include, but are not limited to:

- Frequent “check-ins/check-outs” at regular intervals with a designated contact person that:
- Are visual or two-way contacts (or, a one-way system may be acceptable if it allows the worker to call or signal for help and will send a call for help if the worker does not reset the device after a predetermined interval)
- Are of a frequency not to exceed 2 hours (in some cases the duration could be shorter based on the Hazard Assessment)
 - Activates the escalation strategy if contact cannot be made, or there are unusual delays in re-establishing contact
 - Provision for emergency rescue and first aid

Effective means of communication include, but are not limited to:

- Portable phone or cell phone

- Walkie-talkie
- Personal alarm or pager
- Periodic site visits
- Electronic methods, such as online web applications
- Check-in system and requirement for updating an individual's status while working alone
- GPS-based communication device (e.g., SPOT Messenger)
- Use of software or hardware to assist with communication in circumstances of poor network coverage

Prior to the employee working alone, a backup form of communication must be established in the event the primary communication is unavailable.

Employee status at check-in should be documented.

Emergency Response

In the event an employee working alone fails to check-in, the designated contact shall begin attempting to contact the employee by using the primary or back up means of communication. If the employee fails to respond or is not able to be contacted, the Safety Coordinator shall be contacted and emergency response procedures will be activated according to company, and/or client location emergency action plans.

Training

Employees are informed of the Altura Engineering and Design Work Alone program. Employees may be informed by communicating the Work Alone Policy via a safety meeting or toolbox talk, reviewing the policy as part of the new employee orientation, and/or posting the policy in a conspicuous location, etc.

Forms

- 305 -

Altura Engineering and Design
Reviewed: October 2024

Updated: October 2024

Revised: October 2024

New Employee Health and Safety Checklist

New Employee Health and Safety Checklist

Submit a copy of the completed form to the safety office when completed.

Employee Name: _____ Hire Date: _____

Supervisor Name: _____ Department: _____

Any questions relating to this form or general safety issues should be directed to the immediate supervisor, the human resources director, or the Safety Coordinator.

Topic	Date	Supervisor's Initials	Employee's Initials
Safe Work Practices and Procedures			
Protective Clothing			
Foot, Ear, & Eye Protection, Fall protection			
Eyewear Issued (safety glasses)			
Baseline Medical Eval Completed			
Non-Workers' Compensation, Disability Plan Explained			
Identification of SDS Locations, Posters, Fire Extinguishers, & Eyewash Stations			
Emergency Evacuation Plan Explained			
Use of Tools & Equipment			
Notes:			

Employee Acknowledgement (Signature): _____

Supervisor (Signature): _____

Date: _____

Safety Meeting Record Attendance Roster

Safety Meeting Record Attendance Roster

Name of Instructor: _____ Date: _____

Facility: Altura Engineering and Design

Printed or Typed Name (Nombre)	Signature (Firma)
1.	
2.	
3.	
4.	
5.	
6.	
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24.	
25.	

Safety Suggestion Form

Name: _____	Date: _____
Description of unsafe condition or practice: 	
Cause or contributing factors: 	
Suggestion for improving safety: 	
Draw a picture to describe the situation:	

Safety Data Sheet Request Form

Please Print

Date of Request: _____

Company Name: _____

Street Address: _____

City: _____ State: _____ Zip Code: _____

Requested by: _____

Product Description

Full Label Name: _____

Manufacturer: _____

Vendor (if known): _____

Vendor's Address: _____

Vendor's Phone: _____

Container Size: _____

Other: _____

Safety Inspection List

Date: _____ Facility: Altura Engineering and Design

Description Code

- #1 Housekeeping Are work areas, aisles, and passageways clean, dry and orderly?
#2 Chemicals Are containers legibly labeled and equipped with closing devices?
#3 Hazardous Waste Are chemicals properly stored in closed containers and properly labeled (identification/accumulation start date?)
#4 PPE Is personal protective equipment being utilized in required areas?
#5 Fire Extinguishers Are fire extinguishers easily accessible, properly placed, and regularly serviced?
#6 Signs Are safety and warning signs posted? Are exits clearly marked?
#7 Machines/Equipment Are machines or equipment in good working order (i.e., no electrical defects) with guards in place?
#8 Hand Tools Are the right hand tools being used for each job?
#9 Electrical Are required grounds on tools and cords? Are breakers properly labeled and fully accessible?
#10 First Aid/Eyewash Are first aid and eye washing stations accessible, identified, fully supplied, and working properly?
#11 Lockout/Tagout Are locks and tags available and being utilized?
#12 Mobile Equipment Are forklifts operated by certified and authorized personnel? Are backup alarms and seatbelts utilized?
#13 Entrances/Exteriors Are entrances, parking lots, and sidewalks free of debris, holes, and tripping hazards?
#14 Storage Are materials, products, or supplies properly and safely stacked to a workable height?
#15 Lighting Is adequate lighting available in all work areas?
#16 Compressed Cylinders Are cylinders properly secured? Are caps in place when not in use?
#17 Ladders Are ladders provided where needed? Are they properly constructed and in good physical condition with no defects?
#18 Stairways/Steps Are stairways and steps in good condition with handrails or guardrails? Do stairways and steps have adequate lighting?
#19 Fire Hazards Are contaminated rags being stored in a closed container? Are used containers that previously stored a flammable chemical being discarded properly?
#20 Fall Protection Is anything used as a fall protection system that prevents a user from falling any distance?
#21 Other

Location/Department	Description Code	Comments/Description
Inspector's Name:	Inspector's Signature:	

Emergency Information (To Be Posted)

Fire Department:	911 (Administration) 806-378-9360
Crime:	911 (Non-Emergency) 806-378-3038
Injury/Illness:	911
Avoid infection of minor injuries; always get medical attention or skilled first aid.	
Medical Contact:	Care Express Urgent Cares
	2329 Ross Osage Dr.
	Amarillo, TX 79103
	806-350-5790
TPA	Axiom Medical 1-800-502-9466
Ambulance:	911
Poison Control:	1 (800) 222-1222
In all cases of fire, crime, accidents, or sickness, promptly notify (After 911 if NOT on property):	

Disciplinary Report Form

Facts of Incident: (Attach additional page if necessary)

Employee Name:	Job Title:
Department:	Supervisor:
Date/Time of Occurrence:	Location:
Type of Offense:	
<input type="checkbox"/> Absenteeism	<input type="checkbox"/> Leaking confidential information
<input type="checkbox"/> Misuse of property/equipment	<input type="checkbox"/> Unsafe behavior/horseplay
<input type="checkbox"/> Theft or fraud	<input type="checkbox"/> Fighting or creating conflict
<input type="checkbox"/> Posting items without permission	<input type="checkbox"/> Failing to follow instructions
<input type="checkbox"/> Bringing illegal drugs/alcohol on site	<input type="checkbox"/> Smoking in undesignated area
<input type="checkbox"/> Leaving work without permission	<input type="checkbox"/> Other

Past Disciplinary Action:

Date _____ Type _____ Was written report prepared? Yes No

Details: _____

Past Disciplinary Action:

Date _____ Type _____ Was written report prepared? Yes No

Details: _____

Consequence if incident occurs again:

Completed by: _____ Date: _____

Employee statement regarding facts of the incident: (Attach additional page if necessary)

Employee acknowledgment: My signature acknowledges that I have received this report and that it has been discussed with me. I understand that my signature is not an admission of the incident or offense. I understand that I may appeal this report by following instructions in the Staff Handbook.

Employee Signature: _____ Date: _____

Witness Signature (if any): _____ Date: _____

Complete immediately and forward within three (3) business days to: Human Resources:

Energized Electrical Work Permit

PART I: TO BE COMPLETED BY THE REQUESTER:

(1) Description of circuit/equipment/job location: _____
Job/Work Order Number _____

(2) Description of work to be done: _____

(3) Justification of why the circuit/equipment cannot be de-energized or the work deferred until the next scheduled outage:

Requester/Title _____

Date _____

PART II: TO BE COMPLETED BY THE ELECTRICALLY QUALIFIED PERSONS DOING THE WORK:

Check when Complete

(1) Detailed job description procedure to be used in performing the above detailed work: _____

(2) Description of the safe work practices to be employed: _____

(3) Results of the shock hazard analysis: _____
(a) Limited approach boundary
(b) Restricted approach boundary
(c) Prohibited approach boundary
(d) Necessary shock personal and other protective equipment to safely perform assigned task

(4) Results of the arc flash hazard analysis: _____
(a) Available incident energy or hazard/risk category
(b) Necessary arc flash personal and other protective equipment to safely perform the assigned task
(c) Arc flash boundary

(5) Means employed to restrict the access of unqualified persons from the work area: _____

(6) Evidence of completion of a job briefing, including discussion of any job-related hazards: _____

(7) Do you agree the above-described work can be done safely? Yes No (If no, return to requester.)

Electrically Qualified Person(s) _____ Date _____

Electrically Qualified Person(s) _____ Date _____

PART III: APPROVAL(S) TO PERFORM THE WORK WHILE ELECTRICALLY ENERGIZED:

Manufacturing Manager _____ Maintenance/Engineering Manager _____

Safety Manager _____ Electrically Knowledgeable Person _____

General Manager _____ Date _____

Note: Once the work is complete, forward this form to the site Safety Department for review and retention

Confined Space Evaluation Form

SPACE LOCATION: _____

SPACE DESCRIPTION: _____

Complete this form for any space which may be considered a confined space.

A confined space is defined as having those characteristics listed in #1 through #3 below.

YES NO 1. Is the space large enough and shaped so an employee can enter and work?

YES NO 2. Does the space have a limited or restricted means for entry or exit?

YES NO 3. Is the space NOT designed for continuous employee occupancy?

If the answers to questions #1 through #3 above are "YES", then the space is a Confined Space. Continue with questions A through E below to determine if and what type of permit is required to enter.

YES NO A. Does the space contain, or have the potential to contain, a hazardous atmosphere, i.e., oxygen deficiency, flammable vapors, toxic gases, or dusts, etc., or pipes, ducts, vents, or other entry points for potentially hazardous substances, or will volatile chemicals be used, or will painting or other work that could create a breathing hazard be performed?

Specify potential or known hazards: _____

YES NO B. Does the space contain a material with the potential for engulfment of a worker, e.g.? grain, sand, or water?

Specify potential or known hazards: _____

YES NO C. Does the space have an internal shape such that a worker could be trapped or suffocated by inwardly converging walls, floor, or ceiling?

Specify potential or known hazards: _____

YES NO D. Does the space contain other recognized safety or health hazards, such as: (check all that apply)

_____ mechanical hazards.

_____ exposed or vulnerable electrical wires or energized equipment.

_____ gas or chemical lines

_____ special hazards related to elevation or falling; or

_____ temperature extremes/heat stress

Specify potential or known hazards: _____

YES, NO E. Will welding, cutting, torch work, or other hot work be performed?

Specify potential or known hazards: _____

If you answered "NO" to all questions A through E, then the space is a Non-Permit Required Confined Space. If you answered "YES" to question A, then classify the Permit as either General or Hazardous, depending on the ability to ventilate the space.

If you answered "YES" to question B, C or D, then classify the Permit as a General if the hazards can be controlled.

If you answered "YES" to question E, then classify the Permit as Hot Work & also issue a Hot Work Safety Permit.

Name: _____ Signature: _____

Department: _____

Confined Space Entry Permit

(Valid for maximum of one eight (8) hour shift and to be posted at work site)

Type of Entry Permit (check one): General Hazardous* Hot Work**

(*Contact safety coordinator) (** Issue Hot Work Safety Permit)

Name of Entry Supervisor: _____ Employee No.: _____

Work to be Performed: _____ Duration: _____

Location of Permitted Confined Space: _____

Pre-Entry Briefing Conducted by: _____
(Print) _____ (Signature) _____

Authorized Entrant(s): _____
(Name) _____ (Employee Number) _____

Attendant/Spotter Name: _____
(If required) _____ (Name) _____ (Employee Number) _____

**** In case of emergency, Attendant will call 911 or on Radio ****

Specific hazards which will be encountered (see reverse): _____

Hazard control methods to be used: _____

Required equipment to be used: (inspected and operational)

Personal Protective :(respirator, clothing, etc.) _____

Air Monitoring: _____

Retrieval/Rescue: _____

Purge/Ventilation: _____

Communication: _____

Special Tools:(approved electrical equipment, non-sparking tools, etc.) _____

Supplied Air / Self-Contained Respirators _____

MONITORING RESULTS

Date/Time	Monitoring Performed By	O2 (%) 19.5–23.5%	LEL (%) < 10%	H2S (ppm) <15ppm	CO (ppm) <35ppm	Other (specify)	Sample Location

This confined space has been evaluated in accordance with the confined space entry procedures. All persons participating in this confined space entry have been trained in confined space entry procedures. The creation or discovery of any work induced hazards or other unforeseen, actual, apparent or potential hazards, requires the space be re-evaluated, additional precautions taken, and a new permit issued, if appropriate. **Hazardous** entries must be reviewed and approved by safety coordinator.

Entry Supervisor Signature (Issued): _____ Date and Time: _____

Entry Supervisor Signature (Closed): _____ Date and Time: _____

Safety Coordinator Authorization (Hazardous Entry Only): _____ Date and Time _____

Employee Incident Report

THIS REPORT IS TO BE COMPLETED IN ITS ENTIRETY BY THE EMPLOYEE

Facility Location: 600 S Tyler St., Suite 2600, Amarillo, TX 79101

Altura Engineering and Design

EMPLOYEE INFORMATION:

Name _____ D.O.B. _____ S.S # _____
Department _____
Occupation _____

Do you want medical attention? Yes No

INCIDENT INFORMATION:

Date of Incident ____ / ____ / ____ Time of Incident _____ A.M. P.M.

Date Incident Reported to Supervisor ____ / ____ / ____

Time Reported to Supervisor _____ A.M. P.M.

Exact location/area of Incident _____

Describe equipment involved _____

Describe what happened (i.e. what you were doing or how the incident occurred, include nature of injury if any):

Body Part (s) involved _____

Have you had a same or similar injury before? yes no IF yes, give details _____

Is the injury a **Work-related** injury? yes no

Was a safety device applicable? yes no Was it used? yes no

Was injury caused by failure to use or observe safety rules or regulations? yes no

Were there witnesses yes no IF yes list below

Witnesses –please complete witness statement(s)

Name _____ Phone _____

Address _____ City _____ State _____ Zip Code _____

Name _____ Phone _____

Address _____ City _____ State _____ Zip Code _____

I, _____ (employee), the undersigned hereby certify that the foregoing statements and answers on this form are complete and true, and that no information has been omitted, and that I made such statements and answers of my own free will. I understand that my Employer does carry workers' compensation insurance, and furthermore, that any payments to me or anyone else for expenses in connection with this incident and resulting in injury not an admission of liability on the part of my employer.

Employee Signature _____ Date: _____

Translated by (if applicable) _____ Date: _____

Any person who knowingly and/or with intent to injure, defraud, or deceive an insurance company or other person files statement of claim containing false, incomplete or misleading information, may be guilty of insurance fraud and subject to criminal and substantial civil penalties.

Supervisor's Statement of Injury

THIS REPORT IS TO BE COMPLETED IN ITS ENTIRETY BY SUPERVISOR

Facility Location: 600 S Tyler St., Suite 2600, Amarillo, TX 79101

Altura Engineering and Design

EMPLOYEE INFORMATION:

Name: _____ Social Security #: _____
Department: _____ Job Title: _____

INCIDENT INFORMATION:

Date of Incident ____ / ____ / ____ Time of Incident _____ A.M. P.M.

Date and Time Incident Reported ____ / ____ / ____ A.M. P.M.

Name of Person/Supervisor Incident Reported to _____

Was the incident reported immediately? yes no

Exact location area where the incident happened _____

Fully describe the incident _____

INJURY INFORMATION:

Describe the injury and part of body affected _____

Was injury caused by failure to use or observe safety rules or regulations? yes no

If yes, explain _____

Time Lost from Work yes no

Date Returned to Work ____ / ____ / ____

MEDICAL PROVIDER:

Was employee sent for medical attention yes no

Name of clinic/hospital/physician: Axiom Medical _____ Phone: 877-502-9466

If not a designated provider, please complete the following:

Address _____ City _____ State _____ Zip _____

Witness

Name _____ Phone _____

Relationship _____ Has witness statement been completed? yes no

I certify that the foregoing statements and answers on this form are complete and true, and that no information has been omitted.

Signature of Supervisor/Manger Completing Report

Supervisor/Manager Name Printed

Supervisor/Manager Signature

Date

Accident Investigation Report

THIS REPORT IS TO BE COMPLETED IN ITS ENTIRETY BY THE ACCIDENT INVESTIGATOR

Facility Location: 600 S Tyler St., Suite 2600, Amarillo, TX 79101

Altura Engineering and Design

EMPLOYEE INFORMATION:

Name: _____ Social Security #: _____

SUPERVISOR INFORMATION:

Name: _____ Title: _____

WITNESSES INTERVIEWED:

Name _____ Phone _____
Relationship _____ Has witness statement been completed? yes no

Name _____ Phone _____
Relationship _____ Has witness statement been completed? yes no

INCIDENT INFORMATION:

Date of Incident ____/____/____ Supervisor Reported to: _____

Brief description of Incident: _____

ACCIDENT REPORT INVESTIGATION INFORMATION:

Name of Investigator: _____ Date of when Report was conducted: ____/____/____

Perceived Cause(s) of Accident: _____

Corrective Action(s) Taken: _____

MACHINERY/EQUIPMENT INVOLVED:

Manufacturer: _____ Equipment age: _____

Serial No: _____ Model: _____

Function: _____ Location: _____

EMPLOYEE TRAINING:

Was employee properly trained relating to safety and health on the job? yes no

Printed name of Accident Investigator

Date

Medical Treatment Authorization

Send a copy of this form to the healthcare provider along with a physician's report and keep the original for the employee's file. Send completed forms to Texas Mutual Insurance Company via online.

Employer Information	
Name:	Altura Engineering and Design 600 S Tyler St., Suite 2600, Amarillo, TX 79101
Phone:	806-318-4076
Policy #:	0001269425
Employee Information	
Name:	Social Security Number:
The above referenced employee has reported sustaining an occupational injury or illness related to his or her employment. You are authorized to provide medically necessary treatment and/or prescription services for conditions related to the reported injury/illness.	
Drug / Alcohol Screen Required?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If this box is signed and dated, the employee is required to submit to a drug/alcohol screen which is only for the initial examination and emergency treatment of the injury noted below. Please conduct a drug/alcohol screen for your panel of controlled substances and alcohol in addition to treating the occupational injury/illness. The results of the drug/alcohol screen must be reported only the employer.	
Authorized supervisor or manager's signature:	
Date:	
Type of injury:	
The attached Physician's Report of Employee Injury ("Report") must be completed by the treating physician. Please provide the employee with a copy of this report and attach a copy to your billing document.	
Your charges for medically necessary services will be paid directly by the employer. To facilitate prompt payment, submit your billing document and a copy of the report to:	
Texas Mutual Insurance Company PO Box 12058 Austin, TX 79711-2058	
Treatment and billing inquiries should be directed to Texas Mutual Insurance (800) 859-5995. For authorization to release medical records and other information relating to the above employee's occupational injury or illness, refer to Form 6, Medical Records Release Authorization.	
Supervisor or manager's printed name:	
Supervisor or manager's signature:	Date:

Employee Acknowledgment of Workers' Compensation Network

I have received information that tells me how to get health care under my employer's workers' compensation insurance.

If I am hurt on the job and live in a service area described in this information, I understand that:

1. I must choose a treating doctor from the list of doctors in the network. Or, I may ask my HMO primary care physician to agree to serve as my treating doctor. If I select my HMO primary care physician as my treating doctor, I will call Texas Mutual Insurance at (800) 859-5995 to notify them of my choice.
2. I must go to my treating doctor for all health care for my injury. If I need a specialist, my treating doctor will refer me. If I need emergency care, I may go anywhere.
3. The insurance carrier will pay the treating doctor and other network providers.
4. I might have to pay the bill if I get health care from someone other than a network doctor without network approval.
5. Knowingly making a false workers' compensation claim may lead to a criminal investigation that could result in criminal penalties such as fines and imprisonment.

Signature _____ Date _____

Printed Name _____

I live at: Street Address _____

City _____ State _____ Zip Code _____

Name of Employer: _____

Name of Network: Texas Mutual Insurance

Network service areas are subject to change. Call (800) 859-5995 if you need a network treating provider.

Please indicate whether this is the:

- Initial Employee Notification
 Injury Notification (Date of Injury: _____ / _____ / _____)

DO NOT RETURN THIS FORM TO Texas Mutual Insurance UNLESS REQUESTED.

Medical Records Release Authorization

Complete forms via online to Texas Mutual Insurance.

Employer Information	
Name:	Altura Engineering and Design
	600 S Tyler St., Suite 2600, Amarillo, TX 79101
Phone:	806-318-4076
Policy #:	0001269425

I hereby authorize _____ (name of physician, hospital, or healthcare provider) to furnish to Texas Mutual Insurance, its employees, agents, and authorized representatives any and all of my medical records and related information pertaining to my care and treatment as the result of my injury, illness, and/or claim for benefits. The medical records and related information includes but is not limited to medical histories, reports, charts, notes, letters, x-rays, films, MRIs, CT scans and reports, itemized bills with treatment codes, insurance and claim records, correspondence, payments, consultations, examinations, prescriptions, diagnosis, tests, and treatments.

I understand that this information is being obtained to assist in the evaluation of my claim for benefits.

I understand that this information may be used to adjust, describe, or report matters about my care and treatment to persons entitled to receive this information.

I understand that I may revoke this authorization at any time by sending written notice to Texas Mutual Insurance except to the extent that Texas Mutual Insurance and _____ (name of physician, hospital, or healthcare provider) have taken action in reliance on this authorization.

I understand that information used or disclosed pursuant to this authorization may be subject to further disclosure and no longer protected by the federal health information privacy regulations. However, Texas Mutual Insurance will take precautions to maintain the confidentiality of the information disclosed pursuant to this authorization. I hereby release Texas Mutual Insurance from any liability or loss due to the release of any such information.

This authorization expires one year from the date of this authorization or the date that my claim is finally closed, whichever occurs first.

Nothing contained herein should affect the treatment, payment, enrollment, or eligibility for benefits in accordance with all applicable laws.

I have had the opportunity to read and consider the contents of this authorization. I confirm that the contents are consistent with my direction. A photocopy of this authorization should have the same validity as the original.

Signed:		Date:	
Name:		Social Security Number:	
Address:		Telephone:	
Relationship or Authority of Personal Representative (if applicable):			

Physician's Report of Employee Injury

Please be advised that this employer carries Workers' Compensation insurance. However, if it becomes necessary to refer to another doctor for treatment or opinion, please furnish such information to us prior to the referral for further authorization. All bills for authorized medical treatment or any inquiries concerning authorization for treatment should be directed to:

Attn: Phone 806-318-4076
600 S Tyler St., Suite 2600, Amarillo, TX 79101

Employer Information

Name: Altura Engineering and Design
600 S Tyler St., Suite 2600, Amarillo, TX 79101

Phone: 806-318-4076

Policy #: 0001269425

Name of injured employee:

Date of injury: Date first treatment rendered:

Description of incident:

Initial complaints:

Diagnosis:

Nature, extent, degree, and body location of injury:

Treatment prescribed and prognosis:

Medication prescribed:

Probable length of hospital confinement (if applicable):

X-rays taken? Yes No If yes, results: Positive Negative

Lab tests? Yes No

Describe procedure and results:

Was there any evidence of a prior or pre-existing injury or illness? Yes No

If yes, what condition and to what extent may it contribute to incapacity or recovery?

In an effort to help employees return to work after an injury or illness more quickly, a limited duty program is available. This employee:

- May return to work today without restrictions.
- May return to work today with restrictions indicated below for _____ days.
- May NOT return to work until _____.

If restrictions are required on or off the job, please indicate below:

- | | |
|--|---|
| <input type="checkbox"/> No standing over ____ hours. | <input type="checkbox"/> No lifting over ____ pounds. |
| <input type="checkbox"/> No work requiring depth perception or driving. | <input type="checkbox"/> No stooping, bending, or twisting. |
| <input type="checkbox"/> No reaching over shoulder height.
No use of right or left hand or upper extremities. | <input type="checkbox"/> No walking over ____ hours. |
| <input type="checkbox"/> No climbing over ____ hours. | <input type="checkbox"/> No weight-bearing on right or left foot. |
| <input type="checkbox"/> No pushing or pulling over ____ pounds. | <input type="checkbox"/> Must use crutches or splint. |
| <input type="checkbox"/> Keep wound clean and dry for ____ days. | <input type="checkbox"/> No operation of machines or equipment. |
| | <input type="checkbox"/> No exposure to (specify, e.g., dust, chemicals). |

Released to restricted duty on (date): _____

Released to regular duty on (date): _____

Will employee require further medical treatment?

Yes

No

If yes, date of next appointment: _____

Comments: _____

Signature of Physician (including degrees or credentials). I certify that the statements apply to this bill and are made a part thereof.

Signature: _____

Date: _____

Physician's address, zip code, and phone: _____

Physician's
GRP#: _____

Physician's PIN#: _____

Wage History

You may use the following to report salary or wage history for your injured employee. Copies of payroll checks or payroll registers may be attached.

Employee name:			Date:		
Name of injured employee:			Date of injury:		
Week	From	To	Days Worked	Hours Paid	Gross Paid
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
Information provided by:			Title:		
Department:			Phone:		

Do not include the week the employee was hired or the week in which the injury occurred.

CLAIMS DEPARTMENT USE ONLY	Total Wages Paid	
	Divide by # weeks	
	= Average Weekly Wage	
	Weekly Benefit %	
	Less Weekly Maximum	
	Weekly Benefit	
	OR Daily Benefit	

- 342 -

Altura Engineering and Design
Reviewed: October 2024

Updated: October 2024

Revised: October 2024

Emergency Personnel Names and Phone Numbers

Designated Responsible Officials:

Name: David Salas Phone: 806-318-4076

Emergency Action Coordinator:

Name: David Salas Phone: 806-318-4076

Site Manager:

Name: David Salas Phone: 806-318-4076

Assistant(s) to Physically Challenged (when applicable):

Name: David Salas Phone: 806-318-4076

Medical Evaluation Form

Appendix C: Questionnaire of Medical Evaluation required by OSHA, the (Occupational Safety & Health Administration) 29 CFR 1910.134 Mandatory for Protection of the Respiratory program 1910.134:

Mark with a circle to indicate answers to each question.

To the employee:

Can you read (circle one):

Yes or No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: _____

2. Your name: _____

3. Your age (to nearest year): _____

4. Sex (circle one): Male Female

5. Your height: _____ ft. _____ in.

6. Your weight: _____ lbs.

7. Your job title: _____

8. A phone number where you can be reached by the health care professional who reviews this questionnaire
(include the Area Code): _____

9. The best time to phone you at this number: _____

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle
one): _____

Yes or No

11. Check the type of respirator you will use (you can check more than one category):

a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).

b. _____ other type (for example, half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one):

Yes or No

If "yes," what type(s): _____ ?

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month: Yes or No

2. Have you ever had any of the following conditions?

- | | | |
|----|--|-----------|
| a. | Seizures (fits): | Yes or No |
| b. | Diabetes (sugar disease): | Yes or No |
| c. | Allergic reactions that interfere with your breathing: | Yes or No |
| d. | Claustrophobia (fear of closed-in places): | Yes or No |
| e. | Trouble smelling odors: | Yes or No |

3. Have you ever had any of the following pulmonary or lung problems?

- | | | |
|----|---|-----------|
| a. | Asbestosis: | Yes or No |
| b. | Asthma: | Yes or No |
| c. | Chronic bronchitis: | Yes or No |
| d. | Emphysema: | Yes or No |
| e. | Pneumonia: | Yes or No |
| f. | Tuberculosis: | Yes or No |
| g. | Silicosis: | Yes or No |
| h. | Pneumothorax (collapsed lung): | Yes or No |
| i. | Lung cancer: | Yes or No |
| j. | Broken ribs: | Yes or No |
| k. | Any chest injuries or surgeries: | Yes or No |
| l. | Any other lung problem that you've been told about: | Yes or No |

4. Do you currently have any of the following symptoms of pulmonary or lung illness?

- | | | |
|----|---|-----------|
| a. | Shortness of breath: | Yes or No |
| b. | Shortness of breath when walking fast on level ground or walking up a slight hill or incline: | Yes or No |
| c. | Shortness of breath when walking with other people at an ordinary pace on level ground: | Yes or No |
| d. | Have to stop for breath when walking at your own pace on level ground: | Yes or No |
| e. | Shortness of breath when washing or dressing yourself: | Yes or No |
| f. | Shortness of breath that interferes with your job: | Yes or No |
| g. | Coughing that produces phlegm (thick sputum): | Yes or No |
| h. | Coughing that wakes you early in the morning: | Yes or No |
| i. | Coughing that occurs mostly when you are lying down: | Yes or No |
| j. | Coughing up blood in the last month: | Yes or No |
| k. | Wheezing: | Yes or No |
| l. | Wheezing that interferes with your job: | Yes or No |
| m. | Chest pain when you breathe deeply: | Yes or No |
| n. | Any other symptoms that you think may be related to lung problems: | Yes or No |

5. Have you ever had any of the following cardiovascular or heart problems?

- | | | |
|----|--|-----------|
| a. | Heart attack: | Yes or No |
| b. | Stroke: | Yes or No |
| c. | Angina: | Yes or No |
| d. | Heart failure: | Yes or No |
| e. | Swelling in your legs or feet (not caused by walking): | Yes or No |
| f. | Heart arrhythmia (heart beating irregularly): | Yes or No |
| g. | High blood pressure: | Yes or No |
| h. | Any other heart problem that you've been told about: | Yes or No |

6. Have you ever had any of the following cardiovascular or heart symptoms?
- a. Frequent pain or tightness in your chest: Yes or No
 - b. Pain or tightness in your chest during physical activity: Yes or No
 - c. Pain or tightness in your chest that interferes with your job: Yes or No
 - d. In the past two years, have you noticed your heart skipping or missing a beat: Yes or No
 - e. Heartburn or indigestion that is not related to eating: Yes or No
 - f. Any other symptoms that you think may be related to heart or circulation problems: Yes or No
7. Do you currently take medication for any of the following problems?
- a. Breathing or lung problems: Yes or No
 - b. Heart trouble: Yes or No
 - c. Blood pressure: Yes or No
 - d. Seizures (fits): Yes or No
8. If you've used a respirator, have you ever had any of the following problems?
(If you've never used a respirator, check the following space and go to question 9):
- a. Eye irritation: Yes or No
 - b. Skin allergies or rashes: Yes or No
 - c. Anxiety: Yes or No
 - d. General weakness or fatigue: Yes or No
 - e. Any other problem that interferes with your use of a respirator: Yes or No
9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes or No
- Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.
10. Have you ever lost vision in either eye (temporarily or permanently): Yes or No
11. Do you currently have any of the following vision problems?
- a. Wear contact lenses: Yes or No
 - b. Wear glasses: Yes or No
 - c. Color blind: Yes or No
 - d. Any other eye or vision problem: Yes or No
12. Have you ever had an injury to your ears, including a broken ear drum: Yes or No
13. Do you currently have any of the following hearing problems?
- a. Difficulty hearing: Yes or No
 - b. Wear a hearing aid: Yes or No
 - c. Any other hearing or ear problem: Yes or No
14. Have you ever had a back injury: Yes or No

15. Do you currently have any of the following musculoskeletal problems?

- | | | |
|----|---|-----------|
| a. | Weakness in any of your arms, hands, legs, or feet: | Yes or No |
| b. | Back pain: | Yes or No |
| c. | Difficulty fully moving your arms and legs: | Yes or No |
| d. | Pain or stiffness when you lean forward or backward at the waist: | Yes or No |
| e. | Difficulty fully moving your head up or down: | Yes or No |
| f. | Difficulty fully moving your head side to side: | Yes or No |
| g. | Difficulty bending at your knees: | Yes or No |
| h. | Difficulty squatting to the ground: | Yes or No |
| i. | Climbing a flight of stairs or a ladder carrying more than 25 lbs: | Yes or No |
| j. | Any other muscle or skeletal problem that interferes with using a respirator: | Yes or No |

Medical Clearance for Respirator Use

Dear Physician,

Your patient is an employee of Altura Engineering and Design . During the course of their employment, they may be required to wear a respirator. Medical clearance is required prior to training and wearing respirators because of the remote possibility of an untold health effect.

The employee may be involved in the following applications, but not limited to:

1. Confined space entry, storage tank, or sandblasting requiring either a positive or negative pressure respirator.
2. Spray application and/or handling of chemicals requiring them to wear a half-face respirator.
3. Small spill clean-up involving a half-face respirator.

It is important that the patient be carefully assessed regarding his/her ability to wear respiratory protection devices. You should note any conditions that could increase susceptibility to heat stress or affect the use of a respirator.

Please note: Review the results and fill in the medical clearance form and sign below.

Thank you for your cooperation:

Health Care Provider (HCP) Review:

The HCP must check the appropriate below and sign this review.

I have evaluated (Employee:) _____ and find the patient:

Approved (I find the individual medically qualified to use a respirator).

I find this individual medically qualified to use a respirator with the following restrictions: _____

Disapproved (I DO NOT find this individual medically qualified to wear a respirator at this time).

Physician Name _____

Physician Signature _____ Date _____

Physician Address _____

PLEASE RETURN THIS SIGNATURE PAGE TO: _____

Appendix D Form

Altura Engineering and Design

Appendix D 1910.134 (Non-Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear a respirator to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for voluntary use, or if you provide your own respirator, you need to take a certain precaution to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warning regarding the respirator's limitations.
2. Choose respirators certified for use to protect against the contamination of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Service, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmosphere containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

I attest that I have received and understand Appendix D for voluntary use of respirators.

Employee Name: _____

Employee Signature: _____

Date: _____



Job Safety Environment Analysis (JSEA)

Job Safety Environment Analysis (JSEA)			
Location/Equipment	Client	Date	Start Time
		Lead Worker	Completed Time
Sequence of Job Tasks	Hazard	Action to mitigate/eliminate/control hazard	Person(s) Assigned to Action
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

Personnel Attending |SEA - Sign & Print Name

Emergency Information

Facility Emergency Contact Person: _____

Altura Emergency Contact Person: _____

DAP or Muster Point: _____

Notes: _____

Facility Emergency Contact Person:	Phone:
Altura Emergency Contact Person:	Phone:
DAP or Muster Point:	
Notes:	

COVID-19 Questionnaire

In part of an ongoing effort to help prevent the spread of the Coronavirus (COVID-19) and work to provide a safe environment for our employees and all visitors, we kindly require all visitors/carriers/contractors/employees to complete and sign this questionnaire prior to entering any of our offices or facilities. We appreciate your cooperation in our effort to promote a safe and healthy work environment.

+++++

- 1.** Do you feel sick or have flu-like symptoms, which could include a fever greater than 100.4°F, cough or shortness of breath?

Yes
 No

- 2.** In the past 14 days, have you or a household member been to one of the US DOH CDC Level 3 countries (currently: China, France, Germany, Greece, Hungary, Iceland, Iran, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Monaco, San Marino, Vatican City as of March 12, 2020)?

Yes
 No

- 3.** Have you recently been in contact with a person who is under investigation or confirmed for Coronavirus (COVID-19) or are you currently under investigation?

Yes
 No

If you answered **Yes** to any of the above questions, you are not allowed to enter any Altura Engineering and Design office and/or facility, or meet in person with any of our employees, and we encourage you to contact your doctor's office for instructions on what to do next. If you answered **No** to all of the above questions, you may enter our offices/facilities and meet with our employees.

Thank you for your cooperation.

Date: _____

Printed Name and Company

Company Contact

- 359 -

Altura Engineering and Design
Reviewed: October 2024

Updated: October 2024

Revised: October 2024