SCAT Chart - Systematic Cause Analysis technique - SCAT Chart

		POTENTIAL IF NOT CONTROLLED	
Loss Severity Potential	O Rare (C) Probability of Oc		. (0)
O Major (a) O Serious (B) O Minor (C)	O High (A) O Moderate (B) Type	O(C) O Extensive (A) O Moder f Contact or Near Contact with Energy or Substance	rate (B) O Low (C)
1 Struck against (Running or Bumping into) (See I.C's: 1,2,4,5,12,14,16,17,18,19,26) 2 Struck by (Hit by Moving Object) (See I.C's: 1,2,4,5, 6,9,10,12,13,14,15,16,20,26)	3 Fall To Lower Level (See I.C's:3,5,6,7,11,12,13,14, 15,16,17,22) 4 Fall On Same Level (Slip and Fall, Trip Over) See I.C's: 4,9,13,14,15,16,19,22,26)	5,6,11,13,14,15,16,18) (See I.C's: 8 Contact with	ween Or Under (Crushed Or amputated) 1,2,5,6,9,11,12,13,14,15,16,22,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28) 20,21,23,24,25,27,28)
		(IC's) Immediate/Direct Causes (IC's)	
SUBSTANDARD/UNSAFE ACTS 1 Operating Equipment Without Authority (See B.C's	7 Failing to Use PPE Properly(See B.C's: 2,3,4,5,7,8 10,12,13,15)	14 Under Influence of Alcohol and/or Other 21 Fire & explo	warning System (See B.C's:8,9,10,11,12,13) 26 Inadequate or Excess Illumination bision Hazards (See B.C's:5,6,7,8,9,10,11,12, (See B.C's:8,9,10,11,12,13)
2,4,5,7,8,12,13,15) 2 Failure to Warm (See B.C's: 1,2,3,4,5,6,7,8,9,12, 13,15)	8 Improper Loading (See B.C's:1,2,3,4,5,6,7,8,9,12 13,15) 9 Improper Placement (See B.C's: 1,2,3,4,5,6,7,8,9,	Drugs(See B.C's:2,3,4,5,7,8,13,15) 13,15) 15 Using Equipment Improperly (See B.C's: 22 Poor House 1,2,3,4,5,6,7,8,9,10,12,13,15) 12,13,15)	27 Inadequate Ventilation (see B.C's: 8,9,10,11,12) 28 Hazardous Environmetal Conditions
3 Failure to Secure (See B.C's:2,3,4,5,6,7,8,9,12 13,15) 4 Operating at Improper Speed (See B.C's:2,3,4	12,13,15) 10 Improper Lifting (See B.C's:1,2,3,4,5,6,7,8,9,12,13 15)		sure (See B.C's: 5,6,7,8,9,10,11,12,13,14) (See B.C's: 8,9,10,11,12,13) xposure (See B.C's: 5,6,7,8,9,10,11,12,13,14)
5,6,7,8,) 5 Making Safety Devices Inoperative (See B.C's	13) 11 Improper Position for Task (See B.C's: 1,2,3,4,5,6 7,8,9,12,13,15)		e Extremes (See B.C's: 1,2,3,8,9,11,12
2,3,4,5,6,7,8,9,12,13,15) 6 Using Defective Equipment (See B'C's: 2,3,4,5,6 7,8,9,10,11,12,13,14,15)	12 Servicing Equipment in Operation (See B.C's:2,3,4,5 6,7,8,9,12,13,15)	B.C's: 8,9,10,11,12,13,14,15) 19 Congestion or Restricted Action (See B.C's: 8,9,13)	
		(BC's) Basic / Underlying Causes (BC's)	
PERSONAL FACTORS 1 Inadequate Physical/Physiological Capability (See CAN: 6.9.12.15.18)	4 Mental or Psychological Stress (See CAN: 1,4,5,6,10,11,12,15,16,18,20)	7.11. Improper supervisory example 10 Inadequate 7.12. Inadequate performance feedback (See CAN:	Purchasing 13 Inadequate Work Standards (See CAN: 1,2,3,4,5,6,7,8,9,10,11,
1.1 Inappropriate height, weight, size, strength reach, etc.	4.1 Emotional overload4.2 Fatique due to mental task laod or speed	7.13. Inadequate reinforcement of proper behavior 10.1 Ina 7.14. Improper production incentives 10.2 Ina	dequate specifications on requisitions 12,13,14,15,16,19) dequate research on materials/equipment 13.1 Inadequate development of standards for;
Restricted range of body movement Limited ability to sustain body positions Substance sensitivities or allergies	4.3 Extreme judgment/decision demands 4.4 Routine, monotony, demand for uneventful vigilance	JOB FACTORS 10.4 Ina	dequate specifications to vendors dequate mode or route of shipment dequate receiving inspection and 13.1.2. Coordination pocess design
Sensitivities to sensory extremes (temperature, sound, etc) Sensitivities extractions and the sensor	Extreme concentration/perception demands Meaningless or degrading activities Confusing directions/demands	8.2 Unclear or conflicting assignment of responsibility 10.6 Ina	peptance 13.1.3. Employee involment dequate communication of safety 13.1.4. Procedures/practices/rules 1 health data 13.2 Inadequate communication of standards for:
1.6 Vision deficiency1.7 Hearing deficiency1.8 Other sensory deficiency (touch,	4.8 Conflicting demands/directions4.9 Preoccupation with problems	8.4 Giving inadequate policy,procedure, practices 10.7 Important or guidelines 10.8 Important procedure, practices 10.8 Important procedure, practices 10.8 Important procedure, practices 10.7 Important procedure, practices 10.8 Important procedur	proper handling of materials 13.2.1. Publication proper storage of materials 13.2.2. Distribution
taste, smell, balance) 1.9 Respiratory incapability 1.10. Other permanent physical capabilities	4.10. Frustasion 4.11. mental illness		oroper transporting of materials 13.2.3. Translation to appropriate languages languages 13.2.4. Training
1.11. Temporary disabilities	5 Lack of Knowledge (See CAN:2,4,5,6,7,8,9,10,11,12,13,15,16,18,20)	8.8 Providing inadequate reference documents 10.11 Im directives and guidance publications 10.12 Ina	oroper salvage and/or waste disposal 13.2.5. Reinforcing with signs, color dequate contractor selection codes and jobs aids
2 Inadequate mental/Psychological Capability (See CAN: 6,9,10,15,18) 2.1 Fears and probias	5.1 Lack of experience5.2 Inadequate orientation5.3 Inadequate initial training	8.9 Inadequate identification and evaluation of loss exposure 11 Inadequate 8.10. Lack of supervisory / management job (See CAN:	Maintenance 13.3 Inadequate maintenance of standards for: 1,3,4,5,9,10,13,15,19) 13.3.1. Tracking of work flow 13.3.2. Updating
2.2 Emotional disturbance 2.3 Mental illness 2.4 Intelligence level	5.4 Inadequate update training5.5 Misunderstood directions	knowledge 11.1 Ina 8.11 Inadequate matching of individual qualifications 11.	dequate preventive 13.3.3. Monitoring use of procedure 1.1. Assessment of needs or practices/rules 1.2. Lubrication and servicing 13.4 Inadequate monitoring of compliance
2.4 Intelligence level 2.5 Inability to comprehend 2.6 Poor judgment	6 Lack of Skill (See CAN: 2,4,5,6,7,9,10,13,15,18)	8.12 Inadequate performance measurement and 11. evaluation 11.	1.3. Adjustment/assembly 1.4. Cleaning or resurfacing 14 Exercise Wear and Tear
2.7 Poor coordination 2.8 Slow reaction time 2.9 Low mwchanical aptitude	6.1 Inadequate initial instruction6.2 Inadequate practice6.3 Infrequent performance	11.	dequate repairative (See CAN: 3,4,6,9,10,13,14,15) 2.1. Communication of needs 14.1 Inadequate planning of use 2.2. Scheduling of work 14.2 Improper extension of service life
2.10. Low learning aptitude 2.11. Memory failure	6.4 Lack of Coaching 6.5 Inadequate review instruction	(See CAN: 1,2,3,4,9,12,13,14) 11. 9.1 Inadequate assessment of loss exposures 11.	2.3. Examination of units 14.3 Inadequate inspection and/or monitor 2.4. Part of substitution 14.4 Improper loading or rate of use
3 Physical or Physiological Stress (See CAN: 4,6,9,11,12,13,15,18,20)	7 Improper Motivation (See CAN: 1,2,4,5,6,8,10,11,13,15,17,18)		14.5 Inadequate maintenance 14.6 Use by unqualified or untrained people 1,3,4,6,7,9,11,12,13,14,15,19) 14.7 Use for wrong purpose
3.1 Injury illness 3.2 Fatique due to task load or duration 3.3 Fatique due to lack of rest	 7.1 Improper performance is rewarding 7.2 Improper performance is punishing 7.3 Lack of incentives 	9.4 Inadequate monitoring of construction risk	dequate assessment of needs and ss statement of needs and statement of the
3.4 Fatique due to sensory overload 3.5 Exposure to health hazards	7.4 excessive frustation7.5 Inappropriate agression	readiness cor 9.6 Inadequate or improper controls 12.3 Ina	nsiderations 15.1.1. Intentional dequate standards or specifications 15.1.2. Unintentional
3.6 Exposure to temperature extremes 3.7 Oxygen deficiency 3.8 Atmospheric pressure variation	 7.6 Improper attempt to save time or effort 7.7 Improper attempt to avoid discomfort 7.8 Improper attempt to gain attention 	9.8 Inadequate evaluation of changes 12.5 Ina	dequate availability 15.2 Improper conduct that is not condoned dequate adjustment/maintenance 15.2.1. Intentional 15.2.2. Unintentional
Blood sugar insufficiency The sugar insufficiency	7.9 Inadequate dicipline7.10 Inappropriate peer pressure		dequate removal and replacement suitable items
3.11 Contained movement		(CAN) Control Action Needs (CAN)	
1 LEADERSHIP AND ADMINISTRATION Program Present (P), Standards (S), Compliance (C) 1.1 General Policy	ACCIDENT AND INCIDENT INVESTIGATION Program Present (P), Standards (S), Compliance (C) 5.1 Accident/Incident Investigation Procedure		EETING esent (P), Standards (S), Compliance (C) P S C pup Meeting Held
Program Coordinator Senior and Middle Management Participation	5.2 Scope of Investigations Established5.3 Remedial Follow-up and Action	10.2 Employee Training Program 16.2 Re 10.3 Training Program evaluation Program	cord of Subject, Visual Aid, Attendance, blems Discussed
1.4 Management Performance Standards 1.5 Management Participation 1.6 Presentation at Management Meeting	5.4 Major Accident Announcement Used 5.5 High Potential Incident Information Used 5.6 Operating management Participation		ddle and Top Management Involvement gular Program Monitoring
Management Reference Manual Management Audits Conducted	5.7 Incident Reporting and Investigation 5.8 Accident/Incident Report Maintenance	11.1 Personal Protective Equipment Standards 17. GENERAL 11.2 Personal Protective Equipment Program P	esent (P), Standards (S), Compliance (C)
Individual Responsibility for Safety and health /Loss Control Objectives 1.10. Establishment of Annual Safety and Health	5.9 Regular Program Monitoring 6 TASK OBSERVATION	11.3 Enforcement of Standards 17.2 Us	ety Bulletin Board Program e of program statistics and facts tical Topic Promotion
/Loss Control Objectives 1.11 Joint safety & Health Committees and/or Safety and Health Representatives	Program Present (P), Standards (S), Compliance (C) 6.1 Management Directive on Importance 6.2 Complete Task Observation Program	12 HEALTH CONTROL 17.5 Pro	e of Awards or Recognition gram Information Publication pup Performance Promotion
1.12 Refusal to Work on Grounds of safety & Health Hazard (s) procedure	6.3 Level of Complete Task Observations 6.4 Partial Task Observation Program	12.1 Health Hazard Identification 17.7 Ho 12.2 Health hazard Control 17.8 Re	suskeeping Promotion cords of Program Promotion Activities
1.13 reference Library 2 MANAGEMENT TRAINING	6.5 Task Observation Report Analysis 6.6 Regular Program Monitoring		ID PLACEMENT esent (P), Standards (S), Compliance (C)
Program Present (P), Standards (S), Compliance (C) 2.1 Management Orientation/Induction Program 2.2 Formal Initial Training of Senior Management	7 EMERGENCY PREPAREDNESS Program Present (P), Standards (S), Compliance (C) 7.1 Coordinator Appointed	S C 12.7 Health Communications to Worker 18.2 Pre	ysical Capability Analyses -Employment Physical examination neral Orientation/Induction Program
personnel 2.3 Formal Review and update Training of senior	7.2 emergency Plan in Writing 7.3 Supervisory Training in First Aid	13 PROGRAM EVALUATION SYSTEM P. S. C. tion	e-Employment/Pre-Placement Qualifica-
Management Personnel 2.4 Formal ilnitial Training of Supervisory and Middle Management Personnel	7.4 Employee Training in First Aid (10%) 7.5 Emergency Lighting and Power Adequate	13.1 Comprehensive Audit of Compliance with	NG CONTROLS esent (P), Standards (S), Compliance (C)
2.5 Formal Review and Update Training of Supervisory and Middle Management personnel	7.6 Master Controls Color Coded and Labeled 7.7 Protective and Rescue Equipment	Physical Conditions standards Sp	rchasing Includes safety and health in ecifications and Procurement lection and Control of Contractor
2.6 Formal Training of program coordinator	7.8 Emergency Team Training and Drills 7.9 Qualified First Aid Attendants	Fire Prevention and Control Standards 13.4 Comprehensive Audit of Compliance with 20 OFF-THE-	IOB SAFETY
3 PLANNED INSPECTIONS Program Present (P), Standards (S), Compliance (C) 3.1 Planned General Inspections	7.10. Organized Outside Help and Mutual Aid 7.11 Protection of Vital Records	13.5 Program Evaluation Systems Record 20.1 Re	esent (P), Standards (S), Compliance (C) porting System Established and statistics alyzed
3.2 Follow-up Procedures 3.3 Inspection report Analysis 3.4 Critical Parts/Items Inspection Program	7.12 Post Event Planning 7.13 Emergency Communication Provided 7.14 Public Safety Communications Planned	20.2 Off	-the-job safety Information Communi-
3.5 Preventive Maintenance Program 3.6 Mobile and Material-Handling Pre-Use	8 ORGANIZATIONAL RULES	14.1 Design Engineering Safety and Health Con- siderations at conception and Design	
Equipment Inspections 3.7 Alternative Conditions Reporting System 3.8 Planned general Inspection Report	Program Present (P), Standards (S), Compliance (C) 8.1 General safety and Health Rules 8.2 Specialized Work Rules	S C 14.2 process Engineeing Safety and Health Consideration at Conception and Design 14.3 Regular Program Monitoring	LEGEND
Maintenance 3.9 regular Program Monitoring	 8.3 Work Permit and specialized procedures Systems 	P Do	we have program standards for this activity?
4 TASK ANALYSIS AND PROCEDURES Program Present (P), Standards (S), Compliance (C) P S C	8.4 Rule education and Review Program 8.5 Rule Compliance Effort 8.6 Use of Educational Signs and Color	15.1 Training in Personal Communication Technique C Ist	existing standards adequate? here full compliance with standards?
4.1 Management Directive on Importance 4.2 Critical Task Inventory	Codes 8.7 Regular program Monitoring	15.2 Job Orientation/Induction New/Transferred People	•
4.3 Task Analysis and Task Procedure Objectives 4.4 Task Analysis and Procedures for	9 ACCIDENT/INCIDENT ANALYSIS Program Present (P), Standards (S), Compliance (C)	15.3	
Critical Task Completed and regularly Updated 4.5 Safety and Health Hazards in Critical	9.1 performance statistics Computed and used 9.2 Occupational Injury and Illness Analysis 9.3 Property and Equipment Damage		
task Analyses and procedures 4.6 Regular program Monitoring	Identification and analysis 9.4 Problem Solving project Teams		
	9.5 Incident(Near Miss) Analysis		