

Approved
ORNL WORK PLAN
 Operations, Maintenance and Services
 Work Plan Name / Rev: MWP059422 / 0
 Expiration Date: 6/26/2025



WORK SCOPE/DESCRIPTION

Requester (Name/Badge/Division):	Dukes, Sergio / 00709118 / X195
Location of work (Bldg/Rm/Other):	// Roof
Work Plan Title:	Roof Repair at Buildings 7930 and 7920's South Storage

Description of Service/Work Needed:

This Work plan will cover ORNL craft that will be needed to complete the task of the sub-contractor who will be working under the AHA ORNL at Building 7930 and 7920's South Storage Room.

Eskola Roofing and Waterproofing will be performing roof repairs.

7930: Repairs consist of: Remove 20X20 area of roof for repair. Clean roof of all debris and dispose of. Install new liquid adhered base and cap sheet tying into existing roof. Install new insulation to match existing insulation.

7920 South Storage Room: Repairs consist of: Remove deteriorated sealant at counterflashing to wall and end termination, Apply new urethane sealant.

The following signed off forms from the Systems Engineer/Safety Basis Engineer shall be required: USQD and Equivalency Evaluation Form (NNFD-FRM-005).

Charge Number, if required:	N7930ROF/N1082200		
Work Plan Grade/Worktype:	1 / A		
Author (Name/Badge):	Dukes, Sergio / 00709118		

File Attachments:	Badge	Name	Attachment Desc	File Name
	03022839	Moore, Andrew	Eskola AHA	ORNL Open Service Contract AHA 2023 Eskola.pdf
	03022839	Moore, Andrew	Eskola Proposal/Work Scope	Eskola Proposal for ORNL Multiple Repairs for NNFD Facilities.pdf
	03022839	Moore, Andrew	Eskola Safety Manuel	Eskola Safety Manual 2020pdf.pdf
	03022839	Moore, Andrew	Rigid Roof Insulation Panel	InsulBase NH Polyiso Insulation Product Data Sheet (PDS/TDB).pdf
	03022839	Moore, Andrew	Sealant	SDS-DuraLink-35-2016-05.pdf
	03022839	Moore, Andrew	Interply Adhesive	Weatherking_SDS_05082018_FINAL (002).pdf
	00695437	Replogle, Chadwick	QEA	MWP059422 Roof Repair at 7930 and 7920's South Storage.pdf

INSTRUCTIONS

Prerequisites/Precautions:

1. Is it a physical change? Yes
 2. Is it a change to a procedure or program described in the documented safety analysis? No
 3. Is it a new or revised operation? No
- If any of the above were answered yes, then initiate a USQD or USQD Screening Worksheet in accordance with Unreviewed Safety Question (USQ) Process for Nuclear and Facility Safety
 - Add Prerequisite to notify Facility Management or Operations Manager of work activity.
 - Contact LSS (Laboratory Shift Superintendent) prior to accessing roof.

Directions:

- Proper PPE is to be used in performance of tasks.

- Notify Building Supervision/Facility Management prior to starting work.
- Waste generated is disposed of in accordance with established ORNL procedures.
- Ensure work area is clean and free of hazards during performance of work.

Post Work Testing:

Closeout:

- Ensure work area is clean and free of hazards prior to leaving it.
- Provide feedback to Building Supervision and Task Leader.

JOB HAZARD EVALUATION

HAZARDS	PERMITS / CONTROLS
Radiological Work: Sections of roof being removed have potential of being contaminated	<ul style="list-style-type: none"> Radiological Work Permit (Enter RWP no.): As required Dosimetry Monitoring Requirements Follow radiological posting, entry control & egress requirements Respond to Abnormal Radiological Conditions and Alarms. Radiological alarms include: Continuous Air Monitor (CAM), Area Radiation Monitor (ARM), Electronic Pocket Dosimeter (EPD), Personnel Contamination Monitor (PCM).
Electrical Equipment and Tools	<ul style="list-style-type: none"> Listed by a nationally recognized testing laboratory (NRTL)
Elevated Work: Work will occur on Roof. Aerial boom lift may be utilized for access to roof.	<ul style="list-style-type: none"> Inspecting Ladders Guide [Step & Fixed] Obtain Training - Fixed >10 feet; portable >3 feet: Ladder Safety Training Work at unprotected heights over 4 feet - Fall Protection Fall Protection Training Requirements: Specify. Low Slope Roof Worker Aerial Lifts (Boom, Articulating, Telescoping, Scissor, Bucket, etc.) Buddy System (best management practice only, must select additional controls) For narrow roof (less than 50 ft in one dimension) a Safety Monitor must be in place. A Safety Monitor is also required if working outside a warning line system. Utilize a backpack or a rope to hoist tools and equipment onto the roof.
Heat/Cold Stress: Work will be performed on roof	<ul style="list-style-type: none"> Exposure Assessment: Enter or attach justification to classify exposure scenario as low risk, qualitative exposure assessment (QEA), or requirement to conduct quantitative exposure monitoring (QEM) Acclimatization Environmental/Physiological monitoring: Contact QHSP for evaluation if heat stress conditions exist due to environmental conditions.
Manual Material Handling: Tools, equipment and materials	<ul style="list-style-type: none"> Apply Guideline: Assess Hazards Establish Controls (Guideline) [apply 30-50-30 criteria for a non-repetitive lifting task] <ul style="list-style-type: none"> Reduce weight Decrease load Design work area Facilitate access to material Optimum environment Reduce distance /Provide proper storage facilities Load storage Eliminate manual lifting/lowering Eliminate pushing/pulling – Use lifting aids Other instructions to staff Apply hierarchy of controls approach Team Lifting (Guideline): Required for awkward items or any items over 50 lbs.

- | [Exposure Assessment](#): Enter or attach justification to classify exposure scenario as low risk, qualitative exposure assessment (QEA), or requirement to conduct quantitative exposure monitoring (QEM)
- | Utilize a backpack, a rope or aerial lift to hoist tools and equipment onto the roof.

Noise: Use of noise producing tools may be used by roofers performing repairs.

- | [Exposure Assessment](#): Enter or attach justification to classify exposure scenario as low risk, qualitative exposure assessment (QEA), or requirement to conduct quantitative exposure monitoring (QEM)
- | Hearing protection (plugs or muffs): [Selecting Hearing Protection](#): Wear hearing protection with NRR of 26 or greater in hazardous noise areas

Power Equipment: Use of Aerial Lift for moving materials and access to roof.

- | Qualified operator
- | Perform pre-use check ([Exhibit](#))
- | Hearing protection: As needed
- | Verify load capacity of lift and ensure it is not overloaded when moving material/waste.

Insects/animals/wildlife/parasites: Be aware of stinging insects

- | Insect spray: Ensure no one is downwind when spraying.

Safety glasses

- | Safety glasses with side shields are to be worn when work activities are in progress.

DOCUMENTATION REVIEW AUTHORIZATION (Approvals are certification of hazards assessment)

Reviewer/Approver Roles	Signature	Date
Accountable Management (Service Provider, Line, Equipment Owner, or Facility Management)	Caverly, Donald	6/26/2023
Accountable Management (Service Provider, Line, Equipment Owner, or Facility Management)	Weaver, Roger	6/19/2023
Author	Moore, Andrew	6/16/2023
IS/IH	Replogle, Chadwick	6/15/2023
Nuclear or Facility Engineer	Card, Tyler	6/19/2023
Radiation Protection	Stayman, Chris	6/19/2023
Safety Basis Engineer	Green, Michael A	6/19/2023
System Engineer, Accountable Equipment Owner, or Facility Engineer	Keener, Douglas	6/19/2023
Task Leader	Irvine, Carl W	6/19/2023

Work Package Concurrence

Facility Manager	
Operations Supervisor	

Facility Manager Approval To Start Work

Facility Manager	
------------------	--

Work Start Authorization

Task Leader	
-------------	--

Work Acknowledged Complete

Task Leader	
-------------	--

Worker Feedback:

Feedback File Attachments:

Badge	Name	Attachment Desc	File Name
-------	------	-----------------	-----------

FOR INFORMATION ONLY. WORK RELEASE AND SYSTEM HOLD POINTS

TASK DESCRIPTION	RESOURCES	DUR
[Hold Point] - Before Performing Repairs on Building 7930 Roof, Task Lead must ensure a completed USQD and Equivalency Evaluation Form (NNFD-FRM-005) are approved and attached to this work package. In addition, IS/IH representative approval must be obtained before beginning work on Building 7930.	Project Leader	3

WORK DETAILS - Prerequisites/Precautions

Hazards	Permits/Controls	Resources	Dur
1) - Ensure that tasks performed using this work package have an associated "ready to work" work order assigned and the task included on or added to the facility POD before beginning work.			
		Supervisor Project Leader Work Team Leader	1

WORK DETAILS - Directions

Hazards	Permits/Controls	Resources	Dur
1) - Conduct pre-job using NNFD-FRM-058 "PRE-JOB BRIEF" to identify scope of work, hazards, controls, etc. Include input from all personnel in performance of task.			
The following additional items shall be discussed during pre-job brief.			
**Impacts the work will have on Building 7920/7930 operational status.			
**Ensure Building 7920/7930 Facility Management are briefed daily on status of work performed			
**If unacceptable results are found, immediately place equipment/work area in a safe condition and notify Facility Management of problem and what actions to take to return equipment/work area to acceptable condition.			

		Radiological Control Technician Supervisor DEFAULT / ALL TRADES Work Team Leader	1
--	--	---	---

2) - Contractor personnel (ESKOLA) will perform roof repair work per attached instructions.

7920 Repairs per ESKOLA are as follows:

- | Use lift to access and make repairs to roof.
- | Remove deteriorated sealant and counterflashing end terminations and apply new urethane.
- | Remove sealant at counterflashing to wall termination and apply new urethane sealant.

		DEFAULT / ALL TRADES	2
--	--	----------------------	---

[Hold Point] - 3) - Before Performing Repairs on Building 7930 Roof, Task Lead must ensure a completed USQD and Equivalency Evaluation Form (NNFD-FRM-005) are approved and attached to this work package. In addition, IS/IH representative approval must be obtained before beginning work on Building 7930.			
--	--	--	--

Signature:	Project Leader	3
------------	----------------	---

4) - Contractor personnel (ESKOLA) will perform roof repair work per attached instructions.

7930 Repairs per ESKOLA are as follows:

- | Use lift to load roof of all material and safety equipment.
- | Setup all required safety equipment.

- | Remove 20' X 20' roof area to decking.
- | Install new insulation to match existing.
- | Install new liquid adhered base and cap sheet tying into existing roof.
- | Clean roof of all debris and dispose of offsite.

		DEFAULT / ALL TRADES	3
--	--	----------------------	---

5) - RCT coverage may be required when disturbing or removing roofing material.

When removing roofing material from higher background areas where prior surveys could not be conducted, ensure RCT personnel are present.

Ensure that work equipment is surveyed before and after work start.

		Radiological Control Technician	2
--	--	---------------------------------	---

6) - After repair is complete, allow RCT personnel to survey equipment and material prior to contractor removing it from work area.

		Radiological Control Technician	3
--	--	---------------------------------	---

WORK DETAILS - Closeout

Hazards	Permits/Controls	Resources	Dur
1) - Perform cleanup of work area.			
		Radiological Control Technician Supervisor DEFAULT / ALL TRADES Work Team Leader	1

Approved
ORNL WORK PLAN
 Operations, Maintenance and Services
 Work Plan Name / Rev: MWP059422 / 0
 Expiration Date: 6/26/2025



PRE-JOB SAFETY REVIEW GUIDE

ID: 59422

Scope of Work: Review work package/plan to ensure all participants understand the work activity.

Hazards: Review the hazards identified in Job Hazard Evaluation (JHE) / work plan (IOP).

- ↳ Since the work package / plan was written: 1) Have conditions changed? 2) Are there new hazards? Refer to Field Notes and Focus Areas.

Hazard Controls / Permits: Review:

- ↳ Written permits for the work activity.
- ↳ Precautions, step warnings, Hold Points ...
- ↳ Personal Protective Equipment (PPE)
- ↳ Work instructions for information - e.g., steps where hazards are introduced.
- ↳ ORNL subject area requirements - e.g., non-permit hazard controls.

Performing Work:

- ↳ Discuss group/individual responsibilities for safe & effective work.
- ↳ Follow work instructions & safety procedures.
- ↳ Availability/location of materials, tools, etc.
- ↳ Any previous experiences / lessons learned?
- ↳ Response if work cannot be performed as planned.
- ↳ What is the worst thing that could happen?
- ↳ Are there Potential error traps with the job? → →
- ↳ Take a minute before: work start & leaving work area.
- ↳ Work Hand-off / Turnover - workers & Task Leader

→ **Potential Error Traps:**

- ↳ Time pressures
- ↳ Distractive environment
- ↳ High workload
- ↳ First time evolution
- ↳ First day back
- ↳ Vague guidance
- ↳ Over confidence
- ↳ Imprecise communications
- ↳ Work stress

Abnormal Situation Response:

- ↳ Stop Work: Observe an unsafe act, activity or condition that creates an imminent danger.
- ↳ Emergency Response: Discuss egress paths or other responses if problems are encountered.

Field Notes and Focus Areas: (Use this area as a work space to record notes related to new hazards identified in the field or changed conditions. Record feedback in work package/plan information systems.)

By signing below, I am indicating that I have been briefed on the potential hazards associated with completing this job.

Signature / Badge	Date	Signature / Badge	Date

Activity Hazard Analysis (AHA)

Activity/Work Task	Open Service Contract ORNL		Overall Risk Assessment Code (RAC)				M	
AHA Signature Log #			(Use highest code)					
Project Location	ORNL Service Contract	Risk Assessment Code (RAC) Matrix				Probability		
Contract Number								
Date Prepared	3/29/2023	Severity	Frequent	Likely	Occasional	Seldom	Unlikely	
SSHO Signature		Catastrophic	E	E	H	H	M	
Superintendent Signature		Critical	E	H	H	M	L	
QC Manager Signature		Marginal	H	M	M	L	L	
Subcontractor Foreman Name		Negligible	M	L	L	L	L	
Signature:		Step 1: Review each Hazard with identified safety "Controls". Determine RAC (see above).						
QA Reviewed by (Name/Title)					RAC CHART			
Notes: (Field Notes, Review Comments, etc.)				Probability: Likelihood the activity will cause a Mishap (Near Miss, Incident, or Accident). Identify as Frequent, Likely, Occasional, Seldom or Unlikely	E = Extremely High Risk			
General Requirements apply to any and all job sites unless specifically superseded within a particular job step.				Severity: The outcome if a mishap occurred. Identify as Catastrophic, Critical, Marginal, or Negligible	H = High Risk			
				Step 2: Identify the RAC (probability vs. severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of the AHA	M = Moderate Risk			
					L = Low Risk			

Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
General Requirement (Eye Protection)	- Eye Injuries	- Safety glasses meeting ANSI Z87.1 standard is required at all times in all construction areas. - All individuals shall wear approved side shields in all construction areas	L
General Requirement (Head Protection)	- Head Injuries	- Hard hats are to be worn at all times with the brim facing forward in all construction areas.	L
General Requirement (Hand Protection)	- Hand Injuries	- Leather work gloves are to be worn at all times during material handling. - Cut level 5 gloves shall be worn when performing cutting operations or working with sharp objects.	L
General Requirement (Foot Protection)	- Foot Injuries	- Sturdy protective toe, safety shoes are required in all construction areas. Shoes must come above the ankles.	L
General Requirement (Clothing)	- Cuts and Scrapes	- Wear long pants at all times. - Wear class II High Visibility Safety vest at all times - Shirts must be worn at all times. No sleeveless shirts permitted.	L

Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
General Requirement (Evacuation & Shelter in-Place)	<ul style="list-style-type: none"> - Not knowing information resulting in poor emergency response 	<ul style="list-style-type: none"> - All employees shall be instructed in the appropriate location assembly point in case of an emergency, in case of emergency employees will meet at assembly point. - Shelter-in-Place locations shall be identified by ORNL and all employees shall be informed. - Listen to audible alarms and notifications and follow their instruction. 	L
General Requirement (Emergency Response)	<ul style="list-style-type: none"> - Events causing injury/illness and/or near misses 	<ul style="list-style-type: none"> - Any event that results in an injury/illness shall be reported to LSS, Project Superintendent, and Safety Officer immediately. Care of the employee is the top priority. - Survey the scene before approaching an injured employee. - Ensure emergency services have clear access to injured employee. - After the employee is taken care of, perform an investigation to determine root causes and required corrective actions taken. - Report Near Miss Incidents to Supervisor so that a Lessons Learned can be created. 	L
General Requirement (Fire Response)	<ul style="list-style-type: none"> - Fire 	<ul style="list-style-type: none"> - All fire extinguishers shall be inspected monthly - Fuel not in a vehicle or motorized device, shall be in an approved metal fuel can with safety cap and flash arrestor. - Flammables are to be stored at least 50 feet away from a source of ignition or in a fireproof cabinet. - A fire extinguisher, rated at not less than 10 BC, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids are being used on the job site. - Smoking is allowed only in designated areas. - Contact LSS if there is a fire. - Follow all Hot-Work permit requirements when performing Hot Work. 	L
General Requirement (Cords)	<ul style="list-style-type: none"> - Electric Shock 	<ul style="list-style-type: none"> - Inspect all cords before each use - A GFCI will precede all connected extension cords and electric tools. - Route electrical cords away from standing water on ground. - Remove any damaged cords from service. 	L
General Requirement (Equipment Use)	<ul style="list-style-type: none"> - Struck By - Property Damage 	<ul style="list-style-type: none"> - Anyone operating equipment (forklift, lull, boom lift, crane, etc.) must be trained and qualified to operate that piece of equipment. - Spotters must be used at all times. - Inspect equipment daily before use. - Maintain at least 10' clearance from any electrical power lines. - Follow all equipment manufacturer instructions. 	L

Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
General Requirement (Chemical Storage & Use)	<ul style="list-style-type: none"> - Spilling stored flammable liquids or other regulated chemical products 	<ul style="list-style-type: none"> - Avoid storing in high-traffic areas. Handle carefully. - Ensure appropriate spill response equipment (spill kits) nearby. - Report spills to the CFR and/or LSS Immediately. - Follow all precautions and PPE described on the Safety Data Sheet (SDS) - Any Chemical/material brought into the construction zone must have an SDS submitted to ORNL. - All airborne material with the potential to infect, make ill, or do harm to others, must be reviewed with contractor/owner before use. - All Requirements of the SDS shall be followed. Only bring limited amounts of chemicals needed for the work shift and any chemical left will be returned to warehouse off site. 	L
General Requirement (Flammable Liquids)	<ul style="list-style-type: none"> - Burns - Fire 	<ul style="list-style-type: none"> - Only store in approved containers. - Store in well ventilated areas. - Keep 50 ft. from any ignition sources. - Post no smoking signs 25' from storage area. - During fueling operations, bonding shall be performed between the fuel tank and equipment receiving the fuel. - Use caution when transporting to avoid spillage. 	L
General Requirements (Fall Protection) Removing the roof hatch curb	<ul style="list-style-type: none"> - Falls from Heights Greater than 6 Feet 	<ul style="list-style-type: none"> - All personnel required to work at heights greater than 6 feet shall be protected by a personal fall protective system or marked hole cover (3/4" Plywood). - All personnel required to wear a personal fall protection system shall be trained in the use, limitations, inspections, hazards, and proper tie off points. - All fall protection equipment shall be inspected prior to every use. - Defective fall protection shall be taken out of service immediately. - When working on the roof hatch curb. 100% tie off is required at all times - Tie-off points must be identified by competent person. - The preferred fall protection method for this project will include 100% tied off procedures with a two-man safety cart. - Certified tie-off carts may be used as an anchor point. Follow manufacturer instructions. - Inspect roof for any unprotected gaps/holes or if any section of the existing guardrail is removed. - PFSA must consist of a full-body harness, a connector (LE SRL, Shock Absorber Lanyard, 	H

		or Rope and Shock-absorber lanyard), and an Anchor-point at all times.	
Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
Cleanup/Housekeeping	<ul style="list-style-type: none"> -Falls -Struck by -Slip and trip 	<ul style="list-style-type: none"> -Once the trash dumpster is full, the lull will be utilized to bring the dumpster to the ground and dump into the appropriate ground dumpster. During the dumping activities, a spotter on the ground and will barricade as necessary to keep unauthorized personnel out area. -Utilize all required PPE described in General Activities as well as Cut Level 5 Gloves when handling or carrying material, trash, or other components -Follow all fall protection/tie-off procedures described in General Activities 	L

Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
Accessing the Roof	<ul style="list-style-type: none"> - Possible Fall Hazards - Existing Conditions - Slips/Trips 	<ul style="list-style-type: none"> - Access roof using interior stairway, or aerial lift from the exterior. Follow manufacturer instructions and ensure operator is qualified. - Use 100% Fall Protection when working on roof. - Inspect for any openings or holes in roof that need to be protected. 	M

Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
General Requirement (Hand Tools)	<ul style="list-style-type: none"> - Unsafe equipment, tools, ladders, and electric cords - Improper Tool Use 	<ul style="list-style-type: none"> - All equipment tools, ladders, and electric cords shall be inspected prior to each use. - Defective and/or damaged items shall be removed from the work site. - Electric cords shall be free of breaks, splices, or taped repairs. If damaged, remove from work site. - Only use tools for their designed intended purpose. - If a tool is broken or damaged, tag out and remove from service immediately 	L
General Requirement (Lighting)	<ul style="list-style-type: none"> - Inadequate Illumination 	<ul style="list-style-type: none"> - Illumination shall meet the General Construction Lighting requirements of five-foot candles. - Additional lighting (i.e., portable lighting) will be added as needed. - Temporary lighting will be utilized if work is performed either before sunrise or after sunset 	L
General Requirement (Body Position)	<ul style="list-style-type: none"> - Ergonomics-Repetitive Motion and Vibration Injury 	<ul style="list-style-type: none"> - To reduce and/or eliminate cumulative trauma disorders personnel will be required to find alternative methods for performing repetitive motion tasks such as change of position, using different hand positions, use of PPE, and using a support and good posture. 	L
General Requirement (Housekeeping)	<ul style="list-style-type: none"> - Inadequate housekeeping causing hazards such as slips and trips 	<ul style="list-style-type: none"> - Keep all areas and walking/working surfaces neat and clear of unnecessary materials, tools, debris, etc. - Place materials, tools, etc. in areas that will not cause tripping hazards. - Pick up nails and any other objects that cause injury to personnel or damage to vehicles. - Place trash in F M Sylvan provided and marked trash receptacles. - Place debris in proper refuge containers, daily. - Do not allow combustible materials to accumulate. 	L
General Activities (Heat/Cold Stress)	<ul style="list-style-type: none"> - Temperature Extremes 	<ul style="list-style-type: none"> - Symptoms of heat/cold stress will be stressed in toolbox meetings, pre-job activities and work planning. - Personnel will be briefed on recognizing the signs and symptoms of heat stress and heat stroke. - Cool drinking water will be made available. - Personnel will be encouraged to drink sufficient fluids. - Safety Designee will ensure a good work/rest regimen is followed. 	L

Competent Person

Si



2933 NW Park Dr.
Knoxville, TN 37291
(865) 440-3699
ehurst@eskolaroofing.com

March 14, 2023

RE: ORNL Multiple Repairs

Windy Yeager
Oak Ridge National Laboratory
Building 3025M, Mail Stop 6120
Oak Ridge, TN

Windy,

Thank you for the opportunity to provide this proposal and be a partner with you on your upcoming project. After a careful review of your needs, your building, and your current roofing system, our team of trained professionals has developed this customized solution for you.

Eskola Roofing and Waterproofing has been in business for 48 years and is family owned and operated. Last year we performed over 1,100 roof repairs, installed over one million square feet of new roofing material, and performed over 500 roof inspections. We employ over 150 specially trained professionals who provide customized solutions tailored to each of our client's individual needs and expectations.

We are committed to providing you with a quality roof system that will meet your expectations for many years to come. If you should have any questions, comments, or concerns regarding this proposal, please feel free to reach out to us at any time.

Sincerely,

A handwritten signature in black ink that reads "Earl Hurst".

Earl Hurst
Senior Sales Consultant
(865) 440-3699
ehurst@eskolaroofing.com



2933 NW Park Dr.
Knoxville, TN 37291
(865) 440-3699
ehurst@eskolaroofing.com

March 14, 2023

RE: ORNL Multiple Repairs

Scope Of Work 7920 Repairs:

- Use lift to access and make repairs to roof.
- Remove deteriorated sealant and counterflashing end terminations and apply new urethane sealant.
- Remove sealant at counterflashing to wall termination and apply new urethane sealant.

Scope Of Work 7930 Repair:

- Use Lift to load roof of all material and safety equipment.
- Setup all required safety equipment.
- Remove 20'X20' roof area to decking.
- Install new insulation to match existing.
- Install new liquid adhered base and cap sheet tying into existing roof.
- Clean roof of all debris and dispose of offsite.

Scope Of Work 3025M Repair:

- Provide Labor & Material Rate as follows to make repairs across roof as requested by facilities.
- 75\$ per Man Hour Material cost + 20% Markup.

Scope Of Work 3025E Repair:

- Provide labor and materials for leak repairs in locations designated by facilities for 2 days.



2933 NW Park Dr.
Knoxville, TN 37291
(865) 440-3699
ehurst@eskolaroofing.com

March 14, 2023

RE: ORNL Multiple Repairs

Proposal Terms and Conditions

1. Payment is due in full upon completion of scope of work, net 30 days.
2. Exclusions: environmental testing, asbestos removal, through wall flashing, structural, electrical, plumbing, mechanical, carpentry, masonry, and engineering.
3. Eskola, LLC will perform scope of work in accordance with accepted industry guidelines.
4. Eskola, LLC will perform scope of work while maintaining a safe work environment, as required by OSHA.
5. Eskola, LLC will maintain a clean job site by disposing of any debris created because of the construction activities described in attached scope of work.
6. Any change in scope of work that involves extra costs will be performed only upon written change order and will be an extra charge over and above the estimate.
7. Eskola, LLC will warranty the material and workmanship of specified repair area, and the specified scope of work, for one (1) year from completion, internal gutter repairs are not warrantable items. If warranty repairs are necessary, they shall not exceed the original cost of repairs.
8. This agreement is not a roofing system guarantee, nor does it take the place of an existing roof system guarantee or warranty.
9. Eskola, LLC will not be held liable for any incidental or consequential damages to the building or its contents. Nor shall Eskola, LLC be held liable for any damages, including but not limited to building structure, contents, health issues attributable to past, present, or future water intrusion and associated mildew, fungus, algae, or mold presence.
10. All parties in agree that the existing roof needs repair. Eskola, LLC will take reasonable effort to locate and repair leaks. Unobserved deficiencies, walls, windows, or weather events could cause new leaks. Leaks are known to travel from other areas of the roof and appear in same area as previous leaks.
11. By signing this agreement, the owner confirms that no existing warranty to which the customer is a party of will be breached.
12. This agreement may be withdrawn by Eskola, LLC if not accepted within 30 days of presentation.



2933 NW Park Dr.
Knoxville, TN 37291
(865) 440-3699
ehurst@eskolaroofing.com

March 14, 2023

RE: ORNL Multiple repairs

Option	Price	Initial
7920	\$6,422.00	
7930	\$24,180.00	
3025M	75/MHR Mat. =20%	
3025E	\$4,450.00	

Eskola Roofing and Waterproofing hereby offers to furnish labor, materials, equipment, and supervision necessary to complete the preceding on said job in accordance with the scope of work and specifications described above and attached to this proposal in accordance with all terms and conditions of this proposal/agreement. Due to the recent volatility in the petroleum chemical industry and the disruption in the supply chain any material price increases prior to the start of the project/job start-up will be passed onto the owner. This proposal is conditioned upon the usage of an AIA Standard Form of Agreement between contractor, owner, subcontractor, or an otherwise acceptable agreement to Eskola Roofing and Waterproofing.

Owner's Authorized Representative:

Name: _____ Date: _____

Signature: _____

Eskola, LLC Authorized Representative:

Name: _____ Earl Hurst _____ Date: _____ March 14, 2023 _____

Signature: Earl Hurst



Eskola's Safety Program

**An Employee Guide to Safety Policies and Procedures
to Support a Safety-Conscious Work Environment**

Provided by: The Crichton Group
Reviewed and Modified by: Dayner Gordillo, CSST
Latest Reviewed Date: 08/05/2019

Table of Contents

TABLE OF CONTENTS	2
COMMITMENT TO SAFETY	3
MANAGEMENT SUPERVISOR RESPONSIBILITIES.....	4
SAFETY MANAGER ROLES AND RESPONSIBILITIES	5
SUBCONTRACTORS RESPONSIBILITIES	6
MULTI-EMPLOYERS WORKSITE	6
EMPLOYEE SAFETY INVOLVEMENT AND RESPONSIBILITIES ...	7-8
ESKOLA'S SAFETY COMMITTEE	9-13
NEW HIRE ORIENTATION.....	14
RETURN TO WORK PROGRAM	15
SEXUAL HARASSMENT POLICY	16
WORKPLACE VIOLENCE	17
ACCESS TO EMPLOYEE EXPOSURE & MEDICAL RECORDS	17
WORKPLACE HAZARD ASSESSMENT AND CONTROL.....	18
EMERGENCY ACTION PLAN	19-21
FIRST AID & CPR AND MEDICAL PROGRAM.....	22-23
BLOODBORNE PATHOGEN.....	24-26
MOTOR VEHICLE RECORD (MVR)	27
OCCUPATIONAL INJURY/ILLNESS REPORTING AND ACCIDENT INVESTIGATION PROGRAM	28-33
FALL PROTECTION	34-44
HAZCOM/GHS PROGRAM	45-51
HEARING CONSERVATION	52-54
PERSONAL PROTECTIVE EQUIPMENT (PPE)	55-57
RESPIRATORY PROTECTION.....	58-60
SILICA DUST	61-70
ELEVATED PLATFORM/ AERIAL LIFT PROGRAM	77-78
POWER INDUSTRIAL TRUCKS PROGRAM.....	79-82
LOCKOUT/TAGOUT	83-87
ELECTRICAL SAFETY	88-94
FIRE PREVENTION.....	95-101
HOT WORK SAFETY PROGRAM.....	102-111
GENERAL SAFETY PRECAUTIONS	112-121
OFFICE SAFETY	122
DISCIPLINARY PROGRAM.....	123
EVALUATION OF PROGRAM EFFECTIVENESS	124
EMPLOYEE ACKNOWLEDGEMENT FORM	125

Commitment to Safety

Eskola LLC is committed to a strong Health and Safety Program that protects its employees, contractors, customer, clients, the public and property from accidents and /or incidents occurring on our projects.

We believe that all accidents are preventable. Our goal is ZERO accidents. Active participation at all levels will ensure that our goal can be achieved.

Eskola LLC endeavors to provide proper and relevant employee training, job-specific safe work practices, project and personal protection equipment, operation and maintenance procedures, and safety guidelines that focus management, employee and contractor awareness on reducing the risk of accident and/or incidents in all activities.

Eskola LLC, contractor employers, and contractor employees are responsible for fully complying with all safety and health standards and regulations of Occupational Safety and Health Administration (OSHA), and for co-operating with management in the implementation of the Health and Safety Program, worksite inspections, incident/accident investigations and in continuous improvement of this program

We are committed to safe and sustainable practices in all aspects of our operations and therefore will review and update our safety program on a yearly basis to adapt to industry changes, trends, and requirements.

Eskola LLC management, contractor management, and all employee are collectively responsible to ensure compliance with local government, occupational safety and health regulations.



President

08/05/2020



Safety Manager

08/05/2020

Management and Supervisor Involvement and Responsibilities

Management and Supervisory Personnel are responsible for ensuring that:

- The effort of the Safety Manager has the all the support by pledging leadership support and financial resources for this safety program and ensuring the program is being followed.
- All required Personal Protective Equipment is provided to employees at no cost of their own.
- Periodic meeting of management personnel is held for the purpose of reviewing health and safety activities and accidents trends and determining necessary courses of corrective actions.
- Support and direction necessary for the effective implementation of the health and safety program are provided and health and safety policies, procedures and regulations are enforced.
- Workers are informed of any potential or actual dangers to their health, are instructed in personal protective equipment, safe work practices, and all rules and policies of this program.
- Employees are permitted to work when the actions indicate that the work would jeopardize themselves or other.
- Where practicable, new work areas or projects are inspected with the participation of the Safety Manager prior to the commencement of work.
- Daily informal inspections are conducted on work areas, equipment, tools, work methods, and practices.
- Immediate action is undertaken to correct substandard safety practices and conditions identified through inspections/observations and report it to management and Safety Manager.
- All accidents are investigated for the purpose of identifying the root cause and necessary corrective actions.
- Accident investigation reports are reviewed, and necessary course of corrective actions are implemented through directives to appropriate personnel.
- When Safety Manager is performing safety inspections, Supervisors will participate and show complete cooperation.
- Company's Safety and Health Program is made available/accessible to workers on the job site or project.
- Job site health and safety actives are coordinated with Subcontractors and the General contractor or building owner.
- Any Subcontractor or General contractor working with Eskola LLC will receive a copy of this Safety and Health Program and SDSs of any chemical use or store on site or project.
- Weekly tool-box safety meetings are held for employees to:
 - a. Discuss observed unsafe work practices and conditions
 - b. Review and implement corrective action to eliminate unsafe practices and conditions
 - c. Encourage safety suggestions from other employees.
 - d. Discuss previous accidents/incidents and how to prevent them
- Any work or task is always performed by a two-men or more crew and to never assigned a job to a single or alone employee.
- A good example is set for all employees.

Safety Manager Roles and Responsibilities

Safety Manager is responsible for maintaining, modified and updated this Safety and Health Program to the latest, or above and beyond the minimum local and governments standards such as **OSHA** and **TOSHA**. Safety Manager 's primary role on this company is to keep all employees, on different level of the company, safe when performing any task or job and to assist them by providing proper training and education to increase their awareness on safety and health hazards. The Safety Manager also:

- Conduct and document orientations for all new workers on site.
- Ensure all aspects of the company Safety Program have been implemented as required.
- Ensure that weekly toolbox talks are conducted and documented by each trade.
- Update and maintain current Material Safety Data Sheets for all hazardous substances on site.
- Ensure supervisors and employees are properly trained in this Safety and Health Program or a specific subject that relates to their task or job title.
- Conduct on random and weekly onsite safety inspection to ensure compliance and to identified potential or existing hazard.
 - a. If any unsafe condition is found, the Supervisor or Safety Manager will take corrective actions to eliminated or control the hazard "immediately".
 - b. If any unsafe work practices or safety violation from an employee is found, The Safety Manager will take disciplinary action depending on the altitude of the violation.
- Assist Management and Supervisors to conduct a pre-job inspection on new work areas or project prior to the commencement of work.
- Assist Managers and Supervisors in accident investigation, analysis and preparation of accident reports and summaries.
- Ensure all work-related fatalities, injuries/illness are recorded properly in accordance with OSHA requirements.
- Ensure all required posting are conducted in accordance with recordkeeping guidelines
- Determine the proper classification of job-related injuries or illnesses based on OSHA recordkeeping guidelines.
- Ensure a system is in place for employees to report accidents and near misses.
- Ensures accurate records are maintained and provides documentation upon request.

***Also, Safety Manager will have different roles on this Safety and Health Program as stated on specific policies and procedures.**

Subcontractors Responsibilities/ Multi-Employers Worksite

Eskola LLC's Subcontractors

Eskola LLC's Subcontractors are responsible to follow all Eskola LLC policies, OSHA or TOSHA standards and other local and government agencies. If Subcontractor has its own Safety Program, it must submit to a copy of the program to Eskola LLC's Safety Manager for approval and it must follow the strictest policy between both companies. To ensure that Subcontractors are competent to perform their task safely and better communicate our policies to them, Subcontractors are required to participate in the New Hire Orientation Training prior to starting work, and any safety meeting or tool box related to their task or job title. Subcontractors are subject to onsite Safety and Health Inspection to ensure compliance and to keep a good safe work practice. (**Please refer to the Evaluation of Safety and Health Program Effectiveness on page 125**).

Multi-Employer Worksite

When involved on a Multi-Employer Worksite, The Prime/General Contractors are the controlling contractor, this means that the General Contractor has the authority and responsibility to supervise, to correct a hazard or to ask other to correct a hazard. If Eskola LLC is one of the subcontractors, then Eskola is the **Creating, Exposing or Correcting Contractor**. This means that because the work Eskola LLC does, it may cause or represent a hazard to our own employees or other contractors. If Eskola LLC is the creating or exposing contractor, then Eskola LLC will eliminate or control the hazard and communicate the problem to the Prime/General Contractor for better communication. If another Subcontractor is exposing or creating a hazard that may affect Eskola LLC employees, then Eskola LLC will ask the Exposing/Creating Contractor to eliminate or control the hazard, if the Exposing/Creating Contractor does not follow up with the request, then The Prime/General Contractor will be involved and asked to correct the hazard.

To avoid any miss communication, Eskola LLC will share a copy this Safety and Health Program, a copy of our Safety Plan and SDSs of all chemicals to the Prime/General Contractor. If there is any question, they will be addressed on the pre-start up meeting. If other chemicals are introduced to the worksite by another contractor, then Eskola LLC will request a copy of SDSs of the chemical introduced.

To ensure compliance to Prime/General Contractor's policies, OSHA or TOSHA standards, and other local/governmental agencies, Eskola LLC is to always follow the strictest between all these identities, (**For example:** OSHA, TOSHA, and Eskola LLC require to have fall protection at 6ft. but the Prime/General Contractor may require 4ft. instead, then Eskola LLC employee will follow 4ft. this being the strictest policy). Prior to starting work on a new project or worksite, Eskola LLC employees are required to complete a Hazard Assessment/Job Hazard Analysis and must have a pre-start up meeting with the Eskola LLC onsite, Project Manager, and Safety Manager to discuss any hazards or other requirements that apply to the specific project. **NO EXCEPTIONS!!!**

Employee Safety Involvement and Responsibilities

The primary responsibility of the employees of Eskola LLC is to perform his or her duties in a safe manner in order to prevent injury to themselves and others.

Participation in Training Programs and Safety Meetings.

As a condition of employment, employees MUST become familiar with, observe, and obey Eskola LLC's rules and established policies for health, safety, and preventing injuries while at work. In order to achieve this requirement, ***all employees will participate in training programs and all schedule safety meetings that relate their task or job title in order to perform their duties in a safe manner.***

Pre-Job Review of Assigned Task

Before beginning special work or new assignments, employees shall participate on pre-job review to be familiarized with all associated hazardous conditions and to discuss all appropriate hazard eliminations or controls. Employees will review applicable and appropriate safety rules listed on the JSAs and JHAs and will agree by signing and documenting that he or she understands and is aware of all identified hazards.

Stop Work

If an employee has any questions about how a task should be done safely or identifies hazardous conditions, he or she is under instruction to ***STOP*** work or task and notify supervisor without fear of reprisal. Work or task shall not start until he or she discusses the situation with his or her supervisor and together will determine the safe way to do the job or fix the unsafe condition.

If, after discussing a safety situation with his or her supervisor, an employee still has questions or concerns, he or she and the supervisor are required to contact the ***Safety Manager*** at **(423) 736-1898**.



NO EMPLOYEE IS EVER REQUIRED TO PERFORM WORK THAT HE OR SHE BELIEVES IS UNSAFE, OR THAT HE OR SHE THINKS IS LIKELY TO CAUSE INJURY OR A HEALTH RISK TO THEMSELVES OR OTHERS.

General Safety Rules

Conduct

Horseplay, 'practical jokes,' etc., are forbidden. Employees are required to work in an injury-free manner displaying accepted levels of behavior. Conduct that places the employee or others at risk, or which threatens or intimidates others, is forbidden.

Drugs and Alcohol

Use and/or possession of illegal drugs or alcohol on company property or on company time are forbidden. Reporting for work while under the influence of illegal drugs or alcohol is forbidden.

If any prescription medication is being taken by the employee that may show positive on a drug test, the employee is required to show proof of prescription.

Housekeeping

You are responsible to keep your work area clean and safe. Clean-up several times throughout the day, disposing of trash and waste in approved containers, wiping up any drips/spills immediately, and putting equipment and tools away as you are finished with them. ***The following areas must remain clear of obstructions:***

1. Aisles/exits
2. Fire extinguishers and emergency equipment
3. All electrical breakers, controls, and switches

Employee Safety Involvement and Responsibilities (Continue)

Injury Reporting

All work-related injuries no matter how slight or gravity, it must be reported to your supervisor and Safety Manager immediately (Within a 2-hour period). Failure to immediately report injuries can result in loss of Workers' Compensation benefits. After each medical appointment resulting from a work-related injury, you must contact your supervisor to discuss your progress. You must also give your supervisor any paperwork that you received at the appointment.

Eskola LLC provides Transitional Return to Work (light duty) jobs for persons injured at work. Transitional work is meant to allow the injured or ill employee to heal under a doctor's care while she/he remains productive. Employees are required to return to work immediately upon release.

Off-Site Safety

- a. Employees of Eskola LLC are required to follow all safety and security procedures during off-site visits.
- b. If your contact person does not advise you regarding safety hazards, consider the following:
 1. Emergency exit location(s)
 2. Keep your eye on the path you are walking and avoid any tripping/slipping hazards. When on stairs maintain three-points of contact (hand on rail and feet on stairs);
 3. When visiting construction sites, the use of eye protection, hearing protection, and hard hats are required. This equipment will be in the possession of the Eskola LLC employee and not provided by the client
 4. Wear shoes that support your feet and are slip resistant.
 5. Avoid clothing that is either constrictive or too loose; loose clothing can get caught in machinery or other equipment.

These rules are established to help you stay safe and injury free. Violation of the above rules or conduct that does not meet minimum accepted work standards, may result in discipline, up to and including discharge.

When working at a customer location, employees are required to follow the above rules, as well as all customer rules and procedures, and work in a manner that reflects positively on the company. Before operating any equipment at a customer location, permission must first be secured from the customer contact.

Periodic Inspections

It is the policy of our Company that workplaces are subject to periodic safety and health inspections to ensure implementation and execution of our policies and procedures as relates to employees, contractors, and vendors.

All employees are responsible for cooperating during these inspections and managers and supervisors are responsible for initiating corrective actions to improve items discovered during the walk-through inspection.

Eskola's Safety Committee

SAFETY COMMITTEE MEMBERS FUNCTIONS AND DUTIES

Management Commitment to Workplace Safety and Health

- Establish procedures for review and management's response to minutes.
- Submit written recommendations for safety, health, improvement, changes, and response.
- Evaluate Eskola's safety/health policies and procedures.
- Respond in writing to safety committee recommendations.
- Review corrective action taken by management.

Committee Meetings and Employee Involvement

- Establish procedures for employee input, i.e. to receive suggestions, report hazards, and other pertinent safety and health information.
- Include employee input on agenda for safety committee meetings.
- Hold monthly meetings.
- Keep meeting minutes.
- Develop and make available a written agenda for each meeting.
- Take meeting minutes and distribute to management and the safety committee members.
- Include in the meeting minutes all recommendations.

Hazard Assessment and Control

- Establish procedures for workplace inspections to identify safety and health hazards.
- Assist the employer in evaluating the accident and illness prevention program.
- Appoint an inspection team of at least one employee representative and one employer representative.
- Conduct workplace inspections at least quarterly.
- Make a written report of hazards discovered during inspections.
- Review corrective measures.
- Make written recommendation to correct the hazard and submit it to management for a timely response.

Safety/Health Planning

- Establish procedures to review inspection reports and make appropriate implementation of new safety/health rules and work practices.
- Develop/establish procedures for an annual review of the company safety and health program.

Accountability

- Evaluate the company safety and health accountability program.
- Make recommendations to implement supervisor and employee accountability for safety and health.

Accident/Incident Investigations

- Establish procedures for reviewing reports completed for all safety incidents, including injury accidents, illnesses, and deaths.
- Review these reports so that recommendations can be made for appropriate corrective action to prevent recurrence.

Eskola's Safety Committee (Continue)

FUNCTIONS AND DUTIES: (Continue)

Safety/Health Training for Committee Members

- Identify and make accessible applicable OSHA standards and other codes that apply to your particular industry.
- Provide specific training on your type of business activity. Include at a minimum, hazard identification of the workplace and how to perform effective accident incident investigation.
- Identify the location of safety procedures provided with appropriate equipment and inform employees of their location.
- Recommend training for new employees and refresher training on company's department, work location safety practices, procedures and emergency response.
- Management should maintain (and make available to the safety committee) records on employee safety training.

WORKPLACE SAFETY COMMITTEE MEMBER DUTIES

Advisor

- Prepare agenda for next meeting
- Arrange for meeting place
- Notify members of a meeting
- Arrange the program
- Set time schedule for meeting
- Arrange all seating for the members
- Review previous minutes and material for meeting
- Conduct the meeting

Secretary

- Record minutes of the meeting
- Distribute minutes to committee members
- Post minutes for other employees
- Report status of recommendations
- Assume Advisor's duties, if required

Members

- Report unsafe conditions and practices
- Attend all safety meetings
- Report all accidents or near misses
- Review injury accidents, illnesses and death investigations
- Contribute ideas and suggestions for improvement of safety
- Work in a safe manner.
- Influence others to work safely
- Make or assist in inspections

MEETING AGENDA GUIDE

The Advisor will be able to direct group discussion while sticking loosely to the business at hand. A carefully planned agenda will assist the Advisor in doing this. If the agenda can be given to all members in advance, members will arrive at the meeting better prepared. It will also remind them of any responsibilities they have such as reporting on task force or inspection team progress. A standard agenda form can be developed by the committee to meet its specific needs.

Agenda Guidelines

The agenda should be typed on company letterhead. Limit it to one page in length and must include:

- **Title**
- **Date**
- **Location**
- **Starting and ending time**
- **Topics of discussion**
- **Minutes of the previous meeting**
- **Advisor's report**
- **Reports from subcommittees**
- **Old business (Items not completed at previous meetings)**
- **New business**
- **Educational Section/Special Speakers**

The agenda should be distributed to WSC members at least three to five days prior to the actual meeting. A copy should be attached to meeting minutes for distribution or posting.

MEETING GUIDELINES

- 1. Call to order by Advisor.**
- 2. Roll call of members.**
- 3. Introduction of visitors.**
- 4. Read/Review minutes of the last meeting.**
- 5. Approval of last meeting minutes.**
- 6. Discussion of unfinished business:**
 - Reports on matters held over from the last meeting.
 - Correction recommendations.
 - Safety suggestions.
- 7. Discussion of new business.**
Report on injured or ill workers - follow-up welfare. Accident or illness investigation:
 - What was the accident or illness?
 - What conditions contributed to the accident or illness?
 - Why did the conditions exist?
 - What can be done to mitigate another such incident?
- 8. Report on safety incidents:**
Follow-up action taken by management and/or committee.
- 9. WSC members reports:**
- 10. Suggestion box:**
 - Discussion of submitted suggestions.
 - Assignment of suggestions for action.
- 11. Miscellaneous:**
- 12. The Announcement of next meeting date.**
- 13. Adjournment**

Eskola's Safety Committee (Continue)

Safety Committee Meeting Minutes		
Location	Date	Time
Attendees		
Name	Department	
Members Absent		
Name	Department	
	Meeting Minutes	
Introduction		
Discussion of New Safety Hazards and Concerns		
Review of Recent Safety Incidents and Investigations		

New Hire Orientation

The Company is committed to providing safety and health-related orientation and training for all employees at all levels of the Company. The Company will maintain and support a program to educate and familiarize employees with safety and health procedures, rules, and safe work practices. This training session will be conducted under the direction of the Safety Manager.

Upon Completion of the Safety Training Section, each new employee will be required to acknowledge that they have received, understand, and will abide by the Eskola LLC Safety Program. All Participants must sign a statement verifying that they have completed the session. This report will be filled in the employee's personnel file at the Safety Department.

The training may include, but not be limited to the following:

1. Company History
2. Safety Program/Policy & Work rules
3. Responsibilities
4. Safety Education/Training
5. Safety Audit/Inspections
6. Accident Reporting/ Investigation Requirements
7. First Aid & Bloodborne Pathogens
8. Fall Protection
9. Personal Protective Equipment
10. Tool & Equipment Use
11. Material Handling
12. Personal protective equipment
13. Emergency Action procedures
14. Return-to-work program
15. Any other OSHA required training discussed in this safety program.

All new hires will be provided an opportunity to ask any question that pertains to their job duties and employment at Eskola LLC.

Any Subcontractor working with or for Eskola LLC is required to participate in this training section prior to starting any project.

Return to Work Program

It is our goal to prevent work-related injuries from happening. We are always concerned when one of our employees is injured or ill due to a work-related condition. We believe that such absences cost both Eskola LLC and its employees. We want our injured employees to get the best possible medical treatment immediately to assure the earliest possible recovery and return to work.

Eskola LLC has a workers' compensation program available for employees who have suffered work-related injuries. The program's administrator will determine, based upon their guidelines, whether you are eligible for wage loss or medical expenses under that program.

Eskola LLC wants to provide meaningful work activity for all employees who become unable to perform all, or portions, of their regular work assignment. Thus, we have implemented a Return to Work program, which includes transitional or light duty work. The Return to Work program is temporary, not to exceed six months.

EMPLOYEE PROCEDURES

1. All work-related injuries should always be reported immediately to your supervisor no later than the end of the shift on which the injury occurs.
2. If a **post-accident drug screen** is not performed the **same day** as the injury, the employee will only be paid up to one hour while taking time out to have the drug screen sample collected.
3. You must complete and sign a Report of Injury or Illness form.
4. When medical treatment is sought, the injured employee must advise their supervisor that they are seeking treatment and obtain a Return to Work Evaluation form. Regardless of the choice of physicians, the Return to Work form must be completed for each practitioner visit. Eskola LLC will not accept a general note stating that you are only to be off of work.
5. Under this program, temporary light duty work is available for up to sixty (60) days (with a review of your progress every 30 days) while you are temporarily unable to work in your regular job capacity. Transitional or light duty work beyond sixty (60) days, up to a maximum of six (6) months, will be evaluated on a case-by-case basis.
6. If you are unable to return to your regular job but you are capable of performing transitional duty, you must return to transitional duty. Failure to do so will result in your not being eligible for full disability benefits under the workers' compensation program and may result in disqualification for certain employee benefits and, in some cases, be a basis for termination.
7. Employees who are unable to work and whose absences Eskola LLC approves must keep us informed on a weekly basis of their status. Failure to do so will result in a reduction in benefits available and discipline, up to and including termination from employment.
8. If you are unable to return to your regular job or transitional duty, your absence must be approved under the Family Medical Leave Act (FMLA) program. For this purpose, you need to complete a Family Medical Leave Request form and submit it to the Human Resources Manager Eskola LLC. You must also have your practitioner complete both the Return to Work Evaluation form and Return to Work Request / Physician's Authorization form.
9. Employees who are not eligible for leave under FMLA must return to light duty or regular work if at all possible. If you are unable to return to any available work, your job position may be filled after a reasonable time. When able to do so, you will be entitled to return to a suitable position, if available and consistent with any limitations. However, you must keep us regularly informed of your status and any changes in your condition.
10. Employees must provide a Return to Work form indicating they are capable of returning to full duty. Permanent restrictions will be evaluated on a case-by-case basis and relate to the performance of essential job functions. No permanent light duty positions will be created.
11. Cooperate with our third-party administrator and provide accurate and complete information as soon as possible so that you receive all the benefits to which you are entitled. If you have problems or concerns, please contact your Human Resources Eskola LLC Safety Manager.

Sexual Harassment Policy

The Company does not tolerate harassment of our job applicants, employees, clients, guests, vendors, customers, or persons doing business with us. Any form of harassment related to an employee's race, color, sex, religion, national origin, age, citizenship status, veteran status, or handicap is a violation of this policy and will be treated as a disciplinary matter. For these purposes, the term harassment includes, but is not limited to, slurs, jokes, or other verbal, graphic, or physical conduct relating to an individual's race, color, sex, religion, or national origin; sexual advances; requests for sexual favors and other verbal, graphic, or physical conduct of a sexual nature.

Violation of this policy by an employee shall subject that employee to disciplinary action, up to and including immediate discharge.

Examples of conduct prohibited by this policy include but are not limited to:

- Unwelcome sexual flirtation, advances, or propositions;
- Verbal comments related to an individual's age, race, gender, color, religion, national origin, disability, or sexual orientation;
- Explicit or degrading verbal comments about another individual or his/her appearance;
- The display of sexually suggestive pictures or objects in any workplace location including transmission or display via computer;
- Any sexually offensive or abusive physical conduct;
- The taking of or the refusal to take any personnel action based on an employee's submission to or referral of sexual overtures; and
- Displaying cartoons or telling jokes that relate to an individual's age, race, gender, color, religion, national origin, disability, or sexual orientation.

If you believe that you are being subjected to workplace harassment, you should:

1. Tell the harasser that his or her actions are not welcome, and they must stop. If you feel comfortable enough to do so.
2. Report the incident immediately to your Manager or the USS Human Resources Manager.
3. Report any additional incidents that may occur to one of the above resources.

Any reported incident will be investigated. Complaints and actions taken to resolve complaints will be handled as confidentially as possible, given Eskola LLC' obligation to investigate and act upon reports of such harassment.

Workplace Violence

- Any employee who feels that she/he has been threatened should immediately report their concern to the supervisor and to Human Resources.
- If any person is observed exhibiting threatening behavior or making threatening statements, the person discovering the situation should warn others in the area and immediately notify Human Resources and stay away from the person exhibiting threatening behavior.
- Depending upon the level of concern, the police Eskola LLC Safety Manager (911) should be called immediately.
- Never attempt to confront any person exhibiting threatening behavior.

If you have reason to believe that events in your personal life could result in acts of violence occurring at work, you are urged to confidentially discuss the issue with Human Resources so that a prevention plan can be developed.

Access to Employee Exposure & Medical Records

Employees and former employees, who are, have been, or will be exposed to toxic substances or harmful physical agents, such as noise, can have access to exposure and medical records maintained by the Company upon request.

Workplace Hazard Assessment and Control

Workplace Hazard Assessments / Job Hazard Analysis

A hazard assessment or job hazard analysis is required prior to the start of any new project, task or job. Its purpose is to anticipate, as much as is reasonable, any hazards or hazardous conditions that are inherent or could arise out of a new project, task or job. Once the hazards have been identified, the controls for eliminating or minimizing these hazards can then be determined and implemented. Hazard assessments should also be undertaken when major modifications are made to a project, task or job.

A Job Hazard Analysis System has been designed to anticipate any hazards that may be found in the workplace.

Eskola LLC supports the implementation of regular and comprehensive inspections for identification and correction of health and safety deficiencies. As required by this Safety and Health Program, inspections will consider work areas under our control as well as company buildings, tools, equipment, machinery, work methods, and practices.

Worksite hazard assessments and safety inspections are key activities in the prevention of accidents. Their purposes are to:

- identify existing and potential hazards
- increase awareness leading to the prevention of workplace accidents and illnesses
- ensure compliance with standards and regulations.

Eskola LLC requires that hazards to the safety and health of workers are identified and brought to management's attention. It is the onsite supervisor's responsibility to ensure that the identified hazards are eliminated and, where this is not practicable, to ensure the hazards are controlled and that workers are protected from the hazards.

To meet this requirement, Eskola LLC and contractors will provide all necessary resources to ensure that hazard assessments and workplace inspections are effective and must conduct:

- *hazard assessments prior to all new projects, jobs or processes, or the introduction of new equipment or hazardous materials. Work cannot start until this has been completed, NO EXCEPTIONS!!!*
- regular workplace inspections.
- hazard recognition and safety inspection training for inspectors
- time for inspectors to complete their duties
- quick action on recommended corrections
- *After the hazard assessment/job hazard analysis is completed, must be reviewed, discussed and signed by all employee involved in the project. No EXCEPTIONS!!!*

Failure to comply with this policy will be considered Gross Conduct and may lead to termination

Emergency Action Plan

GENERAL EMERGENCY GUIDELINES

1. Stay calm and think through your actions
2. Know the emergency numbers:
3. Fire/Police/Ambulance 911
4. Operator "0"
5. Know where the exits are located
6. In the event of an emergency, do not take elevators; use the stairs
7. Do not hesitate to call or alert others if you believe that an emergency is occurring; you will not "get in trouble."
8. First aid supplies and emergency equipment are located on the roof or inside the company's truck for use by those who are authorized and properly trained.

EVACUATION

1. Employees will be notified of a fire alarm either by the fire alarm system or by a paged announcement.
2. Upon becoming aware of a fire alarm, employees should immediately evacuate the job site. Do not delay evacuation to get personal belongings or to wait for co-workers. Also, all doors should be closed as the last person passes through. (Note: never use elevators during fire alarm situations).
3. Supervisors should be the last persons to leave the area. Check the job site to be sure that all personnel have evacuated.
4. Any employee having mobility, visual, hearing, or other condition, which may hinder them from becoming aware of an emergency or evacuating, should request special assistance through Human Resources.
5. Upon exiting the building, all personnel should report for a headcount.
6. Employees should use the daily JSA as count list for the headcount.
7. If an employee is missing, an immediate report should be made to the incident commander who will in turn report to the first available fire department officer.
8. Employees should stay together in a group so that periodic updates on the situation can be issued.
9. The order to re-occupy a job site or building will be issued by the incident commander.
10. In the event of inclement weather, the incident commander will make arrangements for all personnel to move to shelter.

FIRE SAFETY

1. Alert other persons in the immediate hazard area.
2. Activate a fire alarm
3. If you have been trained, you can decide to use a fire extinguisher following these instructions:
 - P=Pull the safety pin
 - A=Aim the nozzle at the base of the fire
 - S=Squeeze the operating lever
 - S=Sweep side to side covering the base of the fire

**When using a fire extinguisher, always stay between the fire and an exit; stay low and back away when the fire is extinguished.*

**Although Eskola LLC has provided portable fire extinguisher for employees use in the workplace, NEVER feel that using a fire extinguisher is required. If the fire is too hot, too smoky or you are frightened, evacuate.*

4. Have someone notify the incident commander of where the emergency is located. He/she will relay this information to the fire department and to Eskola's Safety Manager.

Emergency Action Plan (Continue)

MEDICAL EMERGENCY

- Upon discovering a medical emergency, call 911.
- Notify the supervisor and report the nature of the medical emergency and location.
- If First Aid/CPR certified, then apply first aid and call 911.
- If Not First Aid/CPR certified, then stay with the person involved, being careful not to come in contact with any bodily fluids until help arrives.
- Send two persons (greeters) to the entrance to await the fire department. One person should call and hold an elevator car. Often two fire department units will arrive, so the second greeter should wait at the entrance to receive the second unit while the first greeter escorts the fire dept. personnel to the scene.
- Employees in the immediate vicinity of the emergency, but not directly involved, should leave the area.
- Human Resources will make any necessary notifications to family members of the person suffering the medical emergency.

SEVERE WEATHER

The supervisor will monitor a weather alert radio. If a severe weather report is issued, she/he will immediately page the following announcement:

Tornado Watch -- means atmospheric conditions are right for a tornado.

1. Notify staff to become aware of the tornado watch.
2. Maintain all staff under direct supervision.
3. Make all primary plans to go to a safe area (radio, batteries, first aid kit, pillows) and inform clients of the tornado watch.

Tornado Warning -- means a funnel cloud has been sighted -- take cover.

1. Notify and execute the movement of staff to the designated safe area.
2. Notify the safety manager and the designated representatives.

Flash-Flood Watch – means heavy rains may result in flash flooding in the specified area.

1. Be alert and prepared for a flood emergency requiring immediate action.

Flash-Flood Warning – means flash flooding is occurring or is imminent in certain areas.

1. Notify and execute movement of staff to safe ground immediately.

Lightning Alert — means that lightning is within so many miles radius.

1. If lightning is within 30-21 miles, the supervisor must monitor the weather.
2. If lightning is within 20-11 miles, the supervisor must advise staff to get ready by closing all open roof, trash, etc....
3. If lightning is within 10 miles or less, all staff must leave the roof immediately and seek shelter; Any work must not resume within 30 minutes from the last lightning.

In CASE OF AN EARTHQUAKE

1. IF LOCATED INSIDE A BUILDING—Take action at first indication of ground shaking, stay inside, drop to your knees with head down, hands clasped behind the neck, arms against ears and eyes closed. Avoid windows, bookcases, cabinets and other things that could fall. Remain silent so directions can be heard above the noise of the earthquake.
2. IF LOCATED OUTSIDE A BUILDING -- Move as far away from buildings, trees, exposed wires and other falling objects as possible. The safest place is in the open. Drop to your knees with your head down, hands clasped behind the neck, arms against ears, and eyes closed.
3. EVACUATION OF A BUILDING-- should take place only after ground shaking ceases. Building evacuation following an earthquake is imperative due to the possibility of secondary hazards such as explosions and fires.

Emergency Action Plan (Continue)

EMPLOYEE RESPONSIBILITIES DURING DISASTERS

Tennessee has experienced disasters caused by floods, tornadoes and other catastrophes. Eskola LLC is almost certain to have employees at or near the scene of such catastrophes, especially those employees of the Construction and Maintenance Divisions.

Employees will shut down all equipment and will be instructed where to go for safety. The supervisor will take the weather radio with her/him. When the severe weather warning is canceled, she/he will send runners to advise that it is safe to return to work areas. A general announcement will also be made.

The first function of maintenance forces during or following a disaster is to open the highways and restore traffic, provided that it is safe to do so and that it will not interfere with rescue work.

It may also be necessary for the maintenance employees to temporarily direct or control traffic until the arrival of local or state police.

The services of people trained in CPR, first aid, and in the use of first aid supplies (carried in all Eskola LLC equipment) may be extremely valuable in alleviating suffering and in saving lives.

The first employee of Eskola LLC at the scene of a catastrophe should evaluate the situation and report conditions by the quickest means to the Safety Manager and request instructions or assistance if necessary.

The work of employees of Eskola LLC during such times should be coordinated with the activities of local authorities or other agencies.

EMERGENCY CONTACT INFORMATION:

FIRE: _____ **TELEPHONE:** _____

POLICE: _____ **TELEPHONE:** _____

HOSP _____ **TELEPHONE:** _____

EMERGENCY MEDICAL SERVICES (AMBULANCE): _____

TELEPHONE _____

DOCTOR: _____ **ADDRESS:** _____

TELEPHONE: _____

JOB SITE TELEPHONE NUMBERS:

PROJECT NAME/NUMBER: _____

ADDRESS: _____ **TELEPHONE:** _____

SITE SUPERINTENDENT: _____ **Cell/Home TELEPHONE:** _____

CLIENT CONTACT: _____ **OFFICE TELEPHONE:** _____

Cell/Home TELEPHONE: _____

***Eskola LLC Emergency Action Plan is available to all employees for review and will be discussed on the New Hire Orientation and prior to start a new construction project by the onsite Supervisor or Safety Manager.**

First Aid & CPR and Medical Program

CPR is an abbreviation for cardiopulmonary resuscitation, medical actions performed in an emergency to make the heart and lungs begin to work again.

First Aid is the assistance given to any person suffering a sudden illness or injury, with care provided to preserve life, prevent the condition from worsening, or to promote recovery.

At least one person on each Eskola LLC's job-site will have a current First Aid/CPR certification through The Red Cross, American Heart Association or the National Safety Council.

First Aid/CPR Card Renewal / Recertification Process - CPR certifications aren't valid forever though, depending on who the provider is through who issued your certification, it will most likely be valid for one or two years.

All affected employees that participate on First Aid/CPR will also be trained on **Bloodborne Pathogens and will be offered the hepatitis B vaccine, at no cost to the employee.**

In the absence of medical facilities on site, First Aid and CPR can be administered to the injured employee(s) at the time of the occurrence. All Eskola Supervisors (Competent Person) have a first aid kit on site that contains the appropriate items determined to be adequate for the environment in which they will be used in the immediate treatment and if need be, summon emergency help for further treatment. The first aid kit is to be replenished after each use to maintain proper materials for the next use and periodically assessed to ensure the availability of adequate supplies.

GENERAL DIRECTIONS FOR FIRST AID:

Bleeding --Control bleeding by applying direct pressure over the wound with a sterile dressing. Always use personal protective equipment. Seek medical assistance if necessary.

Burns -- Cover with a clean dry dressing. Elevate burned area above the heart level if possible.

Eyes -- Penetrating object in the eye:

1. Protect the eye with padding around the object.
2. Place a paper cup or cone over the object to prevent it from being disturbed.
3. Cover the undamaged eye with a patch.
4. Seek medical attention.

Chemical in eye:

1. Flush eye with warm water immediately.
2. Roll eye as much as possible during flushing.
3. If only one eye is affected, rinse contaminated eye downward away from the other eye.

Fainting --Position victim on back. Elevate victim's feet eight to ten inches. Activate the emergency medical system if necessary.

Fractures --Immobilize fractured area. Seek medical assistance. Lie victim down with head elevated. Cool body.

Heart Attack --Administer CPR if trained and when necessary. Activate the emergency medical system.

Heat Exhaustion --Move to cool place. Elevate legs. Apply cool packs. Give water. Monitor.

Heat Stroke -- Move to cool place. Immediately cool victim by fanning and/or applying cool water.

First Aid & CPR and Medical Program (Continue)

Poison Ivy / Poison Oak --Wash affected area with soap and water. Seek medical assistance if necessary.

Poisoning --Call the Poison Control Center, open 24 hours a day, seven days a week. **1-800-376-4766.**

Shock--Keep the injured person lying down. Maintain normal body temperature. Do not give liquids unless the injured is fully conscious. Activate the emergency medical system.

Snake and Animal Bites --Keep affected area below the heart level. Seek medical assistance.

Stoppage of Breathing -- Restart breathing with mouth-to-mouth artificial respiration or CPR if trained.

*If the injured employee needs further care beyond First Aid or be transported to a local medical facility, the Eskola LLC supervisor will handle the transportation either personally or with another Eskola LLC's employee cleared for use. If there is an emergency, refer to the **Emergency Action Plan on page 19.**

Bloodborne Pathogen Exposure Control Procedure

PURPOSE

To establish guidelines to protect employees who, in response to medical emergencies, may be potentially exposed to blood and/or body fluids.

SCOPE

This policy covers the employee's qualification, compliance methods, vaccinations, training, and recordkeeping.

COMPLIANCE METHODS

Universal precautions will be observed to maintain a safe work environment. Three compliance methods will be observed in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material (i.e. body fluids) will be considered infectious regardless of the perceived status of the source individual. All medical records are to be kept for the duration of employment plus 30 years.

These compliance methods include:

- Engineering & work practice controls.
- Housekeeping.
- Personal protective equipment.
- All employees will have access to the exposure control plan.
- All employees in risk of exposure will be trained on all hazards and work practices.

ENGINEERING & WORK PRACTICE CONTROLS:

Controls shall be in place to minimize or eliminate exposure (i.e. sharps disposable containers, self-sheathing needles, etc.). Contaminated sharps shall be placed into appropriate containers as soon as possible after use. The containers are closable, puncture resistant, leak-proof, and labeled with a biohazard label. Contaminated needles shall not be bent, recapped, removed, sheared, or intentionally broken.

Eskola LLC employees will have access to the exposure control plan.

Eskola employees shall have hand-washing facilities readily available and will wash hands using soap, running water and friction if potential exposure exists. Hand-washing shall be done (at a minimum):

- At the beginning and the end of a work shift.
- Prior to physical contact with an injured employee.
- Immediately after or as soon as feasible following contact with blood or potentially infectious materials.

Procedures involving blood or other potentially infectious materials shall be performed safely to minimize splashing, spraying, spattering, aerosolizing, and generation of droplets.

Specimens of blood or other infectious materials will be placed in a container which prevents leakage during the collection, handling, processing, storage, and transport of the specimens. The containers will be labeled and color-coded in accordance with OSHA standards. The container must be closed prior to storage, transport, and shipping. If outside contamination of the primary container occurs, the primary container shall be placed within a secondary container which prevents leakage during the handling, processing, storage, transport, and/or shipping of the specimen. The secondary container may be a zip-lock or other sealable plastic bag.

Equipment which has become contaminated with blood or other infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible.

Bloodborne Pathogen Exposure Control Program

HOUSEKEEPING:

Contaminated work surfaces will be decontaminated with an appropriate disinfectant immediately or as soon as feasible. An appropriate disinfectant is registered with the EPA as HIV- and HBV-effective (i.e. a solution of 5.25% sodium hypochlorite (household bleach) diluted between 1:10 and 1:100 = 1 cup bleach per 2 gallons of water).

A blood and body fluid spill kit will be for use in the case of a spill of blood or other potentially infectious material. The kit should contain:

- a pair of vinyl or latex gloves
- two pieces of absorbent material, such as a cloth or paper towel
- small bucket or spray bottle
- two plastic bags
- disinfectant.

If the floor or other surfaces have been contaminated with blood or other potentially infectious materials, the Eskola employee will do the following:

1. Put on gloves.
2. Layout a bag in an open fashion.
3. Dampen the first piece of absorbent material and mop up the spill.
4. Deposit material in the bag. Avoid touching outside of the bag. If the outside of bag is contaminated, put the contaminated bag into a second bag.
5. Dampen the second piece of absorbent material and clean floor or surface. Deposit into the bag.
6. Tie bag snugly.
7. Dispose of bag in common waste container.
8. Return bucket or spray bottle to the storage area. Restock used items in spill kit.
9. Wash and disinfect hands thoroughly after removing gloves.

Regulated waste shall be placed in approved properly labeled containers and it must be disposed in accordance with the established regulatory procedures.

PERSONAL PROTECTIVE EQUIPMENT:

Personal protective equipment will be provided to Eskola employees, based on anticipated exposures at no cost to the employee. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, and mouth under normal conditions of use and for the duration of time which the protective equipment will be used. The following protective equipment is available and should be used, cleaned, laundered and/or disposed appropriately.

1. Disposable gloves, gown/apron, shoe covers, surgical mask/cap, and breath saver resuscitator.
2. Eye/Face protection device
3. Lab coats, clinic jacket

Gloves, gowns (or aprons, lab coats, or clinical jackets), shoe covers, and masks/caps must be worn when it is reasonably anticipated that the Eskola employee may have direct contact with blood or other potentially infectious materials. Disposable breath saver resuscitators provide emergency breathing capability to the victim without direct mouth-to-mouth contact. Eye/face protection devices, such as surgical masks and caps, goggles, glasses with solid side shields, or chin-length face shields, must be worn whenever splashes, spray, spatter, droplets of blood, or other potentially infectious materials may be generated.

Bloodborne Pathogen Exposure Control Program (Continue)

PERSONAL PROTECTIVE EQUIPMENT (CONTINUE):

Foot and Leg Protection – Steel toed work boots shall be worn at all times on all jobs.

Glove and Hand Protection - Gloves provided by Eskola should be worn when handling objects or substances that could cut, tear, burn, or otherwise injure the hand. Gloves should not be used when operating drill presses, power saws, or similar rotating machinery.

Clothing - Wear safe and practical working apparel. Be sure that any clothing you wear is not highly flammable. Jewelry of any kind should not be worn when working around machinery or exposed electrical equipment.

Hair - Employees wearing long hair, beards, or mustaches will not work with rotating machinery or equipment, or use respiratory equipment, if their hair, beard, or mustache constitutes a potential hazard. Judgment will be made by the immediate supervisor and reviewed by the Eskola Safety Director.

Other Personal Protective Equipment - Other required equipment to be used under unusual circumstances such as high-temperature work, handling corrosive liquids, etc., not specifically covered in this section should be reviewed by the Supervisor and furnished by Eskola LLC. when required.

VACCINATIONS & EVALUATIONS

All Eskola employees who have been identified as having exposure to blood or other potentially infectious materials will be offered the Hepatitis B vaccine, at no cost to the employee. The vaccine will be offered within 10 working days of their initial assignment, involving the potential for occupational exposure to blood or other potentially infectious materials. Employees who previously had the vaccine may submit to antibody testing which shows the employee to have sufficient immunity.

Post-exposure evaluations and follow-ups are provided for Eskola employees who have been exposed to an incident involving the release of blood or potentially infectious materials.

TRAINING

Training is completed during initial employment orientation and continued annually for the duration of employment. All training records will be kept for a period no less than current 3 years.

Motor Vehicle Record (MVR) Grading Criteria [Last 3 Years]

The following chart serves as a guideline for evaluating an employee's Motor Vehicle Record (MVR). An employee with an MVR grade of "poor" will possibly not be insurable by our insurance carrier and could jeopardize their employment if they are unable to be insured. Note that any "major" violation is a "poor" score.

Minor Violations	Number of at-fault accidents			
	0	1	2	3
0	Clear	Acceptable	Borderline	Poor
1	Acceptable	Acceptable	Borderline	Poor
2	Acceptable	Borderline	Poor	Poor
3	Borderline	Poor	Poor	Poor
4	Poor	Poor	Poor	Poor
Any Major violation	Poor	Poor	Poor	Poor

Minor Violation	Major Violations
All moving violations not listed as a major violation.	<ul style="list-style-type: none">▪ Driving under influence of alcohol/drugs▪ Failure to stop/report an accident▪ Reckless driving/speeding contest▪ Driving while impaired▪ Making a false accident report▪ Homicide, manslaughter or assault arising out of the use of a vehicle▪ Driving while license is suspended/revoked▪ Careless driving▪ Attempting to elude a police officer

Occupational Injury/Illness Reporting and Accident Investigation Program

PURPOSE

The purpose of the Eskola LLC **Occupational Injury/Illness Reporting and Accident Investigation Program** is to record and investigate each work-related fatality, serious injury/Illness, accidents and near misses, and to identify the root cause(s) and develop corrective actions that can be taken to prevent future occurrences. **Assigning blame to employees is not the purpose of this program.**

SCOPE

Eskola LLC strives to provide all employees and on-site contractors with a safe and healthy workplace. This program is integrated into our company's written safety and health program and is a collaborative effort that includes all employees. Eskola LLC Safety Manager is responsible for the program's implementation, management, and recordkeeping requirements.

RESPONSIBILITIES:

Management: The management of Eskola LLC is committed to the accident investigation process. Management supports the efforts of the Safety Manager and the Safety Committee by pledging financial and leadership support for the investigation of accidents and near miss events. Management supports an effective accident reporting system and responds promptly to all reports. Management regularly communicates with employees about the program.

Safety Manager: Safety Manager is responsible for this policy and program. All evaluations, investigations, training and recommended solutions are coordinated under the direction of the Safety Manager in collaboration with management. The Safety Manager must monitor the results of the program and determines additional areas of focus that are needed. The Safety Manager also:

- Ensure all work-related fatalities, injuries/Illness are recorded properly in accordance with OSHA requirements.
- Ensure all required posting are conducted in accordance with recordkeeping guidelines
- Determine the proper classification of job-related injuries or illnesses based on OSHA recordkeeping guidelines.
- Ensure supervisors and employees are properly trained to conduct accident investigations.
- Ensure a system is in place for employees to report accidents and near misses
- Ensures accurate records are maintained and provides documentation upon request
- Follows up on all corrective actions suggested during the accident investigation process
- Ensures approved corrective actions are implemented in a timely manner
- Conducts an annual review of the program

Managers and Supervisors: Managers and supervisors of Eskola LLC are:

- Responsible to ensure that all work-related fatalities, injuries, illness, accident or near misses are reported promptly to the Eskola LLC Safety Manager
- Accountable for the health and safety of all employees within their departments through their active support of the accident investigation program
- Required to attend accident investigation training to familiarize themselves with the elements of the program
- Responsible for ensuring that employees under their supervision have received the appropriate training on accident and near miss reporting
- Responsible for initiating the accident investigation process within 24 hours of an incident
- Responsible for implementing approved corrective actions and ensuring they are completed appropriately through active follow-up

Occupational Injury/Illness Reporting and Accident Investigation Program (Continue)

RESPONSIBILITIES (Continue)

Employees: Every Eskola LLC employee is responsible for conducting himself/herself in accordance with this policy and program. All employees will:

- Attend accident and near miss reporting training
- Report any actual or suspected work-related injuries/illness/accidents and near misses as soon as possible to their supervisor, but no longer than two hours after the time of the incident.

DEFINITIONS

Accident – An undesired event that results in personal injury or property damage.

Administrative (or Work Practice) Controls – Procedures that are used to reduce the duration, frequency or severity of exposure to a hazard. These may include work methods training, job rotation and gradual introduction to work.

Engineering Controls – A method of eliminating or reducing the quantity or severity of job risk factors by redesigning equipment, processes, tools, and workstations.

Near Miss – An incident where no property was damaged, and no personal injury sustained, but where damage and/or injury easily could have occurred given a slight shift in time or position.

Personal Protective Equipment (PPE) – Gloves, kneepads and other equipment worn by employees that may help reduce hazards until other controls can be implemented, or to supplement existing controls.

Root Cause – A condition that contributes to an incident or near miss. They are not always obvious and may include items like lack of training, poor safety leadership, lack of rule enforcement or poor safety procedures.

REPORTING RESPONSIBILITIES

All employees are required to report any injuries, illnesses, accidents or near misses to their immediate supervisor within two hours of the incident. The Accident Investigation Report Form (**see Appendix A**) is to be used by the supervisor to document the details of an accident or near miss and any proposed corrective action(s) for future prevention. Supervisors/Managers are to begin the accident investigation process within 24 hours of the initial incident. A copy of the initial report is to be forwarded to the Safety Manager within 48 hours of an accident or near miss.

“NOTIFY TO OSHA” REQUIREMENTS

Eskola LLC’s Safety Manager will notify OSHA when an employee is:

- killed on the job (fatality)
- suffers a work-related hospitalization
- amputation
- or loss of an eye.

When a fatality occurs, it will be reported within 8 hours and; an in-patient hospitalization, amputation, or eye loss it will be reported within 24 hours to the nearest OSHA office, by calling the **OSHA 24-hour hotline at 1-800-321-6742 (OSHA)** or by **reporting online at OSHA’s website**.

***Eskola will be prepared to provide our business name, the names of employees affected, the location, the time of the incident, a brief description of the incident, contact person and phone number prior to contacting OSHA**

Occupational Injury/Illness Reporting and Accident Investigation Program (Continue)

EVENT RECONSTRUCTION

Interviews. Within 24 hours, the manager or supervisor of the employee who was involved in the accident or near miss will begin interviewing employees who were involved or in close proximity to the incident, or who are familiar with the related process or work practices. All individuals will be interviewed separately. A minimum of two people must be interviewed for any accident or near miss reported.

Event Timeline. An event timeline will be developed for each reported accident or near miss. This timeline will start with the accident or near miss and be developed **in reverse** using information obtained from the interviews. Each task, event and employee decision that took place are to be added to the timeline. Also, the timeline will include all physical and emotional conditions known at the time of each action, event or decision along with the employee's knowledge, motivation, goals and focus at the time of any action, event or decision.

Identifying Root Cause(s). After the timeline has been established, the investigator(s) will identify the root cause(s) that contributed to the accident or near miss.

Recommending Specific Solution(s). After the root causes are identified, corrective actions will be identified to reduce or eliminate those hazardous conditions. The manager/supervisor and employees will develop and propose specific improvements that are operationally feasible. Those possible improvements will be submitted to the Safety Manager for validation, final approval, and guidance for an implementation strategy.

When selecting and recommending these corrective actions, possible solutions will be prioritized using the following hierarchy. In this hierarchy of hazard control, the most desirable solutions come from the first level, with the following levels offering increasingly less desirable options.

1. Elimination – eliminating the hazard from the workplace
2. Substitution – replacing a hazardous substance or activity with a less hazardous one
3. Engineering controls – providing guards, ventilation or other equipment to control the hazard
4. Administrative controls – developing policies and procedures for safe work practices
5. Personal protective equipment – using respirators, earplugs, safety glasses, etc.

Recommended corrective actions will come from the highest possible level of the hierarchy of hazard control.

Monitoring Changes. Once implemented, corrective actions will be monitored by the manager/supervisor for effectiveness, to verify that net risk is not increased and to determine that the root cause of the incident has been eliminated or reduced. The manager/supervisor will conduct follow-up interviews with employees who were part of the accident investigation to determine if the implemented corrective actions require any adjustments to provide maximum safety to the employees.

RECORDKEEPING:

If Eskola LLC is required to keep records of fatalities, injuries and illnesses; it must record each fatality, injury and illness that:

- work - related; and
- is a new case; and
- meets one or more of the general recording criteria.

Eskola LLC must enter **each recordable injury or illness on an OSHA 300 Log and 301 Incident Report (Appendix B)**, or another equivalent form, within **seven (7) calendar days** of receiving information that a recordable injury or illness has occurred.

Occupational Injury/Illness Reporting and Accident Investigation Program

RECORDKEEPING: (Continue)

Eskola LLC executive must certify that he or she has examined the **OSHA 300A “Summary” Log (Appendix B)** and that he or she reasonably believes, based on his or her knowledge of the process by which the information was recorded, that the annual summary is correct and complete. After OSHA 300A Log is signed, Eskola’s Safety Manager will continue the process of the recordkeeping by summiting an electronic copy to OSHA as required.

POSTING

Eskola LLC must post a copy of the annual summary in each establishment in a conspicuous place or places where notices to employees are customarily posted. Eskola LLC must ensure that the posted annual summary is not altered, defaced or covered by other material.

The annual summary must be posted no later than February 1st of the year following the year covered by the records and the posting kept in place until April 30th.

Eskola LLC will save the OSHA 300 Log (Appendix B), the privacy case list (if one exists), the annual summary (OSHA 300A) (Appendix B), the accident investigation report (Appendix A) and the OSHA 301 Incident Report forms (Appendix B) for five (5) years following the end of the calendar year that these records cover.

EMPLOYEE AND SUPERVISOR TRAINING

New and previously untrained employees will receive training about this program and how it will be applied when investigating near misses and accidents. Employees and supervisors will receive refresher training at least every five years. Upon hire or promotion into their position, managers and supervisors will be trained on Eskola LLC’s investigation philosophy and the methods that should be used to conduct an accident investigation according to this program. The minimum training for all employees will include the following elements:

1. An explanation of the Occupational Injury/Illness Reporting and Accident Investigation Program and their role in it
2. An emphasis on the importance and method of prompt reporting of accidents and near misses
3. Review of the accident investigation form, with the emphasis on determining contributing factors and corrective actions

PERIODIC PROGRAM REVIEW

At least annually, the Safety Manager will conduct a program review to assess the progress and success of the program. The review will consider the following:

1. Evaluation of all training programs and records
2. The need for retraining managers, supervisors and employees
3. The length of time between accidents, investigations, and implementation of corrective actions
4. The program’s success based upon comparison to previous years, using the following criteria:
 - Frequency of accidents and near misses
 - Frequency of workers’ compensation claims
 - Insurance carrier’s loss analysis
 - Employee feedback through direct interviews, walk-through observations, written surveys and questionnaires, and reevaluations

If there is any change or alteration of this program, The Safety Manager and Management are responsible to retrain any involve personnel

Occupational Injury/Illness Reporting and Accident Investigation Program

Appendix A- Accident Investigation Report

Appendix A – Accident Investigation Report

Accident/Incident Information		
Name(s) of Injured Employee(s):	Date of Accident/Injury/Illness:	
Work Area of Injured Employee(s):	Date Investigation Began:	
Describe Nature of Accident, Injury or Illness:		
Part(s) of Body Affected:		
Describe Medical Treatment Administered:		
Witness Information		
Witness #1 Name:	Phone:	
Witness's Description of Accident/Incident:		
Witness's Signature:		
Witness #2 Name:	Phone:	
Witness's Description of Accident/Incident:		
Witness's Signature:		
Investigation Results		
List contributing factors/root causes:		
Was a mandatory safe work practice violated?	Yes	No
Was the unsafe condition, practice or protective equipment problem corrected immediately?	Yes	No
If no, what has been done to ensure correction?		
Do additional mandatory safe work practices need to be implemented?	Yes	No
If yes, please describe safe work practice:		
List corrective actions taken, and date implemented:		
Signature of Investigator:	Date:	
Signature of Person Responsible for Corrective Actions:	Date:	

Occupational Injury/Illness Reporting and Accident Investigation Program

Appendix B- OSHA 300, 301, and 300A

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 20

U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 2128-0102

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

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 have more than one Log, add the totals from all logs.

Employers, 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 Part 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) Injuries	_____
2) Skin disorders	_____
3) Respiratory conditions	_____
(4) Poisonings	_____
(5) Hearing loss	_____
(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 instructions, search and gather the data needed, and complete the form. This burden estimate does not include the time required to review this notice, answer any questions about this notice or any other aspects of this data collection, contact U.S. Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20580. You do not need to submit the completed forms to this office.

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., 3715) _____

OR

North American Industrial Classification (NAICS), if known (e.g., 336212) _____

Employment Information

(If you don't have these figures, see the Worksheet on the back of this page to estimate.)

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.

(Signature)

(Title)

(Firm name)

<p>OSHA's Form 301 Injury and Illness Incident Report</p> <p>This form is one of the first forms you must fill out when a recordable injury or illness has occurred. Together with the Log of Work-Related Injuries and Illnesses and the accompanying Summary, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.</p> <p>Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must file this form or an equivalent. Some state workers' compensation insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for in this form.</p> <p>According to Public Law 91-596 and 29 CFR 1904.1, once you recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.</p> <p>If you need additional copies of this form, you may photocopy and use as many as you need.</p>	<p>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.</p> <p style="text-align: right;">U.S. Department of Labor Occupational Safety and Health Administration</p> <p style="text-align: right;">Form approved OMB no. 1218-0170</p>
<p>Information about the employee</p> <p>1) Full name _____</p> <p>2) Street _____ City _____ State _____ ZIP _____</p> <p>3) Date of birth _____ / _____ / _____</p> <p>4) Date hired _____ / _____ / _____</p> <p>5) <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>Information about the physician or other health care professional</p> <p>6) Name of physician or other health care professional _____</p> <p>7) If treatment was given away from the worksite, where was it given? Facility _____ Street _____ City _____ State _____ ZIP _____</p> <p>8) Was employee treated in an emergency room? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>9) Was employee hospitalized overnight as an in-patient? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>10) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."</p> <p>11) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."</p> <p>12) What was the injury or illness? Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or sore. Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."</p> <p>13) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.</p> <p>14) If the employee died, when did death occur? Date of death _____ / _____ / _____</p>	

OSHA Compliance Programs: Fall Protection

PURPOSE AND SCOPE

The purpose of this Fall Protection Program is to establish guidelines to protect all Eskola's employees engaged in outdoor or indoor work activities that expose them to a potential of falls from elevations. The scope of this Fall Protection Program includes subcontractors to whose duties may expose them to falls of 4 feet or more to a surface below in general industry situations; 6 feet or more in construction or construction-related activities; or dangerous machinery from any height.

GOALS

The goal of this Fall Protection Program is to prevent falls from heights. Falls from heights are the leading cause of death and debilitating injury in the construction industry, and our Bureau performs a number of tasks that expose employees to potential falls. This goal will be accomplished through effective education, engineering and administrative controls, use of fall protection systems, and enforcement of the program. This Fall Protection Program will be reviewed periodically and updated as necessary.

DEFINITIONS 1926.500(b)

Anchor Point. A secure point of attachment for lifelines, lanyards, or deceleration devices. An anchor point must be capable of supporting at least 5,000 pounds (3,600 pounds if engineered/ certified by a qualified person) per person and must be independent of any anchor point being used to support or suspend platforms.

Authorized Person. An individual approved or assigned by Eskola LLC to perform a specific type of duty or duties or to be at a specific location or job site (e.g., building maintenance, roof repair, etc.).

Carabiner. A metal loop (D ring) with a spring-hinged side that can quickly and reversibly connect components in safety-critical systems.

Clearance. The distance required to prevent the employee from striking the next level or any other obstruction below.

Competent Person. An individual who is capable of identifying existing or potential hazards in the surroundings or work areas and has the authority to take prompt corrective action to eliminate such hazards.

Connector. A device which is used to couple (connect) parts of the personal fall arrest system.

Dangerous equipment. An equipment (such as pickling or galvanizing tanks, degreasing units, machinery, electrical equipment, and other units) which, as a result of form or function, may be hazardous to employees who fall onto or into such equipment.

Deceleration Device. Any mechanism, such as a rope grab, rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lifeline/ lanyard, etc., which serves to dissipate a substantial amount of energy during a fall arrest.

Deceleration Distance. The additional vertical distance when a falling employee travels, excluding lifeline elongation and free-fall distance, before stopping and from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body harness attachment point at the moment of activation of the deceleration device during a fall and the location of that attachment point after the employee comes to a full stop.

Equivalent. Alternative designs, materials, or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard.

Free Fall. The act of falling before a personal fall arrest system begins to apply force to arrest the fall

Free-Fall Distance. The vertical displacement of the fall arrest attachment point on the employee's body harness between the onset of the fall and just before the system begins to apply force to arrest the fall. (The distance that a worker falls before engaging the fall arrest system.) Free-fall distance must not exceed 6 feet.

Full Body Harness. Webbing/straps which are secured about an employee's body in a manner that will distribute the fall arrest forces over the thighs, pelvis, waist, chest, and shoulders. Having means for attaching it to other components of a personal fall arrest system, preferably at the shoulders and/or middle of the back.

OSHA Compliance Programs: Fall Protection (Continue)

Guardrail System. A barrier erected to prevent employees from falling to lower levels. This system includes a toe board, midrail, and top rail able to withstand 200 pounds of force applied in any direction.

Holes. a gap or open space in a floor, roof, horizontal walking-working surface, or similar surface that is at least 2 inches (5.1 cm) in its least dimension (including skylights).

Lanyard. A flexible line of rope or strap that has self-locking snap hook connectors at each end for connecting to body harnesses, deceleration devices, and anchor points.

Leading Edge. The edge of a floor, roof, or other walking/working surface which changes location as an additional floor, roof, etc., is placed or constructed. A leading edge is considered an unprotected side or edge when not under active construction.

Lifeline. A flexible line for connecting to an anchor point at one end to hang vertically (vertical lifeline) or for connecting to anchor points at both ends to stretch horizontally (horizontal lifeline). Serves as a means for connecting other components of a personal fall arrest system to the anchor point.

Lower levels. Areas or surfaces to which an employee can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions thereof.

Low Slope Roof. A roof having a slope of less than or equal to 4 in 12 (vertical to horizontal). A roof with approximately a 19.5-degree slope or less.

Mechanical equipment. All motor or human propelled wheeled equipment used for roofing work, except wheelbarrows and mop-carts.

Opening. A gap or void 30 inches (76 cm.) or more in height and 18 inches (48 cm.) or more width, in a **wall or partition**, through which employees can fall to a lower level.

Parapet Walls. A barrier which is an extension of the **wall** at the edge of a roof, terrace, balcony, walkway or other structure is 39 inches tall is considered as an **equivalent** to Guardrails.

Personal Fall Arrest System. A system used to arrest (catch) an employee in a fall from a working level. It consists of an anchor point location, connectors, a body harness, and may include a lanyard, deceleration device, lifeline, or any combination thereof.

Positioning device system. A body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

Qualified Person. An individual, who, by possession of a recognized degree, certificate, or professional standing, or who, by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, work, or project.

Rope Grab. A deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks to arrest the fall of an employee.

Roof. The exterior surface on the top of a building. This does not include floors or formwork which, because a building has not been completed, temporarily become the top surface of a building.

Roofing Work. the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

Safety-Monitoring System. A safety system in which a competent person is responsible for recognizing and warning employees of potential fall hazards. All other fall protection systems must be deemed "infeasible" (through a study or review) before selecting or using a safety monitoring system.

Self-retracting lifeline/lanyard. A deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after the onset of a fall, automatically locks the drum and arrests the fall.

OSHA Compliance Programs: Fall Protection (Continue)

Snap Hook. A connector comprised of a hook-shaped member with a closed keeper which may be opened to permit the hook to receive an object and when released, automatically closes to retain the object. Snap hooks must be self-closing with a self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection, thus preventing the opportunity for the object to "rollout" of the snap hook.

Steep Slope Roof. A roof having a slope greater than 4 in 12 (vertical to horizontal). A roof with a slope greater than 19.5 degrees.

Toe Board. A low protective barrier that will prevent the fall of materials and equipment to lower levels, usually 4 inches or greater in height.

Total Fall Distance. The maximum vertical change in distance from the bottom of an individual's feet at the onset of a fall, to the position of the feet after the fall is arrested. This includes the free-fall and deceleration distances.

Unprotected Sides and Edges. Any side or edge of a walking or working surface (e.g., floor, roof, ramp, runway, etc.) where there is no guardrail at least 39 inches high or equivalent barrier.

Walking/Working Surface. any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork, and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Warning Line System "Flags". A barrier erected 6ft. (10 feet if a mechanical machine is in use) away from the roof's edge to warn employees that they are approaching an unprotected roof side or edge and designates an area in which work can be conducted without the use of guardrails, personal fall arrest systems, or safety nets to protect employees in the area. Warning Lines/Flags must be used in conjunction with another fall protection.

TYPES OF FALL PROTECTION SYSTEMS

Appropriate fall protection will be determined by the task to be performed. Examples include:

1. **Guardrail** with a **toe board**, **midrail**, and **toprail** or **equivalent wall barrier** of 39" or more on height.
2. **Warning Lines.**
3. **Personal Fall Arrest Systems: (Components)**
 - Anchor points (rated at 5,000 pounds per person).
 - Full body harness.
 - Connectors/Lanyard/Lifeline: (Examples)
 - 1) Shock Absorbing Lanyard.
 - 2) Self-Retractable Lifeline.
 - 3) Rope Lifeline and Rope grabs.
 - 4) Connectors (self-locking snap hooks).
4. **Personal Fall Restraint Systems: (Components)**
 - Anchor point (rated at 3,000 pounds per person).
 - Full body harness (safety belts are not allowed)
 - Fix length lanyard
5. **Position Work System**
6. **Engineered Horizontal lifelines/Pre-engineered Horizontal lifelines.**
7. **Safety Monitoring Systems.**

OSHA Compliance Programs: Fall Protection (Continue)

FALL RESTRAINT VS. FALL ARREST SYSTEM VS. FALL PREVENTION

Fall Prevention is our first defense and best to eliminate the fall hazard. Prevents people from reaching the fall hazard by creating a barrier between the person and the fall hazard this may include Warning Lines, Skylight Screens, Covers, Guardrail/ Parapet Wall 39" tall.

Fall Restraint System is our second defense to control the hazard if fall prevention can't be in place. Fall Restraint prevents people from reaching a fall hazard through a tie-off system. Fall restraint systems consist of **Full Body Harness**, **Fixed Length Lanyard**, and an **Anchor Point** with the capacity to withstand at least 3,000 pounds of force or twice the maximum expected force that is needed to restrain the worker from exposure to the fall hazard.

Fall Arrest System is our last resource to control the fall hazard if fall prevention or fall restraint system can't be in place. It will stop employees fall and limit the fall to a specified distance and will limit the amount of force a person is subjected to in the event of a fall this may include Personal Fall Arrest System (**Full Body Harness**, **Shock Absorbing Lanyard**, **Lifeline with Rope Grab** and an **Anchor Point**).

RECOGNIZED MANDATORY FALL PROTECTION LOCATIONS

Fall protection is required wherever the potential to fall 4 feet (6 feet for construction activities) or more exists. Eskola LLC has identified the following places that require fall protection

n: (examples)

1. All flat and low sloped roof locations when working within 6 feet of the roof's edge (4:12 pitch or less).
2. 100% tie-off is required when performing an inspection or observation within 8ft or less of the roof's edge on low sloped roof locations.
3. Any work, inspection or observation on Steep-slope roof greater than 4 in 12 (vertical to horizontal) location with a potential fall of 4 feet from the ground requires PFAS or Guardrails.
4. All exterior and interior fixed ladders above 24 feet without a cage requires a Personal Fall Arrest System.
5. All floor and roof opening that is at least 2 inches (5 cm) in its least dimension, this includes skylights.
6. Any wall or partition **openings** with a void or gap 30 inches (76 cm) or more in height and 18 inches (48 cm) or more width through which employees can fall to a lower level.
7. All tasks requiring the use of a man lifts or scissors lift.
8. All tasks requiring employees to lean outside the vertical rails of ladders (e.g., caulking, waterproofing, etc.).
9. Any Scaffold 6 feet or greater in height.
10. Regardless of the fall distance, fall protection must be provided when working above any *dangerous equipment and machinery*.

OSHA Compliance Programs: Fall Protection (Continue)

NON-REQUIRED FALL PROTECTION LOCATIONS

1. When working on a roof with guardrails or parapet walls 39 inches tall on entire roof.
2. Working inside Safe Zone mark with Warning Lines unless there is a potential fall hazard such as skylights or unprotected hole
3. Fall Protection is not needed when the first two men in the crew are installing the anchor points or warning lines.
4. While climbing up or down of a portable ladder such as extension ladders or step ladder.
5. Fall Protection is not required while removing the last anchor point (last man on the roof) but must have a safety monitor.
6. Fall protection is not needed if an employee or employees are on a low sloped roof for inspection/observation, provided that they do not approach within 8 feet of the roof's edge but must use a safety monitor.

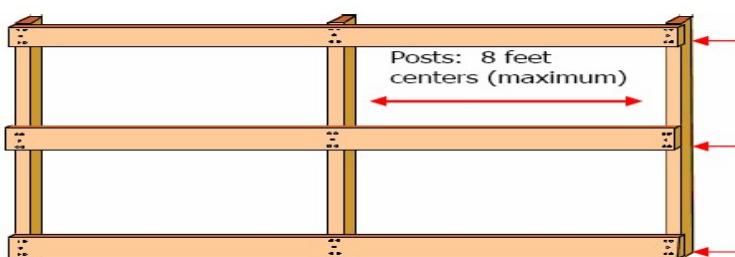
FALL PROTECTION GUIDELINES

Engineering Controls: Whenever possible, attempts should be made to change the nature of the task so that it is not necessary to use fall protection. Some examples would be: moving the task to ground level, using a telescoping arm to reach an area (e.g., to change make a repair), or use remote-sensing equipment rather than having to send a person into harm's way to make a measurement.

Parapet Walls: A barrier which is an extension of the **wall** at the edge of a roof, terrace, balcony, walkway or other structure is 39 inches tall is considered as an **equivalent** to Guardrails as Shown in Picture 1. **If Parapet Wall is less than 39 inches a form of guardrail or rails must be installed to be considered as Fall Protection shown in Picture 2.**



Guardrails: For all projects, only guardrails made from steel, wood, and wire rope will be acceptable. All guardrail systems will comply with the following current OSHA standards [1926.502\(b\)\(1\)](#):



Top Rail: Shall be 42 inches (plus or minus 3 inches) above walking/working level and support a 200 lb force.

Mid Rail: Shall be installed between the top rail and walking/working surface (generally, 21 inches) and support a 150 lb force.

Toe Boards: Shall be 3 1/2 inches high and support a 50 lb force.

These guardrails will be placed in the following areas if necessary or feasible based on job location or requirements:

1. On all open-sided floors.
2. On all floor or roof opening that is at least 2 inches (5 cm) in its least dimension.
3. On leading edges of roofs.
4. Any **skylight** in the roof of buildings through which persons may fall while walking or working.

OSHA Compliance Programs: Fall Protection (Continue)

Skylight Screen/ Guards: must comply with the current OSHA standards. Including the ability to withstand 200 pounds of force. (Examples are shown in the following pictures)

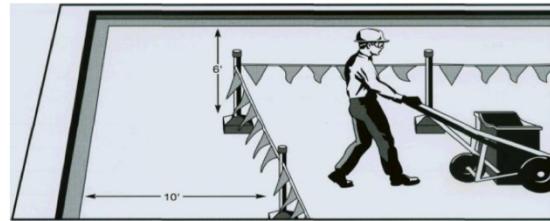
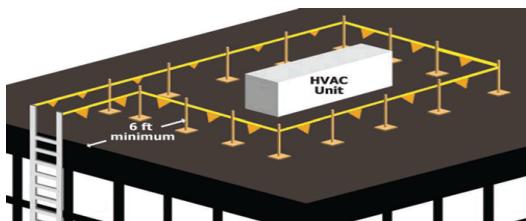


Roof or Floor Covers: must be rated for sufficient strength and construction, will be annotated with the word "HOLE" or "COVER" and placed over any ceiling or floor opening that poses a fall hazard.



Warning Line System:

Warning lines may be appropriate for low sloped roofs where individuals do not need to go all the way to the edge to perform their tasks this method is used to warn employees that they are approaching an unprotected roof side or edge and designates an area in which work can be conducted without the use of guardrails, personal fall arrest systems or safety nets to protect employees in the area. (Examples of Warning Lines are shown in the following picture):



Warning Lines Requirements:

1. The entire perimeter of the roof where work is being performed will be flagged.
2. Be erected 6 feet from the roof's edge or 10 feet if a mechanical machine is in use.
3. Consist of wire or nylon rope.
4. Flags will be strung from post to post and must be able to withstand 16 pounds of force.
5. Be strung between stationary posts made of wood or metal.
6. Must be used in conjunction with another fall protection.

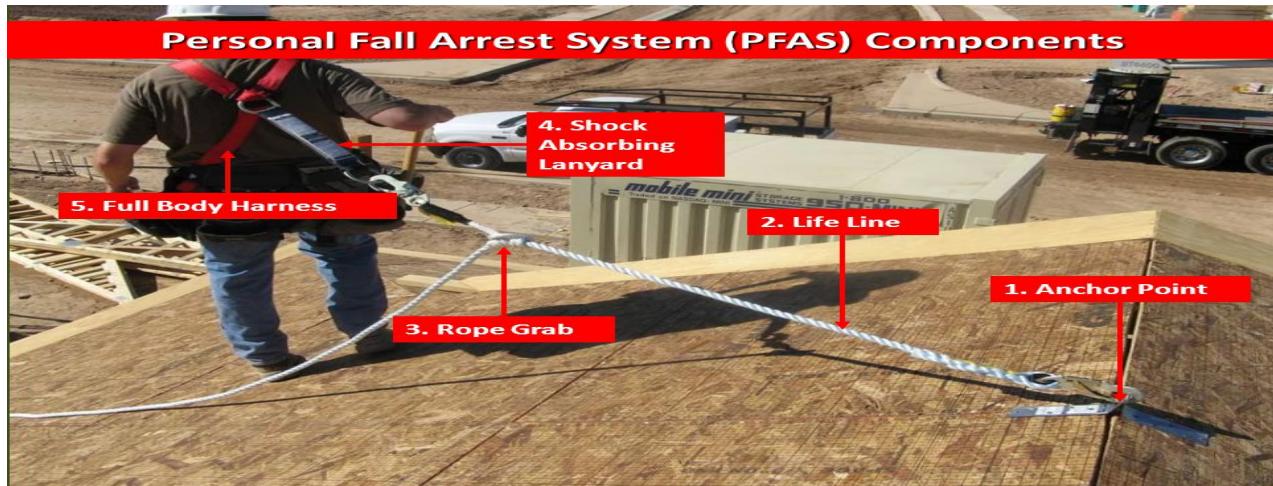
If an employee must access an area within 6 feet of the roof's edge, for reasons other than exiting the roof via a ladder or fixed industrial ladder, the employee must wear a full body harness, attached by a fall arrest lanyard or a retractable to an anchor point, to prevent reaching the roof's edge.

OSHA Compliance Programs: Fall Protection (Continue)

Personal Fall Arrest System:

A fall arrest system does not prevent a fall but instead, it is designed to catch the worker with minimal injury. The components of a fall arrest system are as follows: (Please use the picture below for references)

1. Full body harness
2. Shock absorbing lanyard, self-retracting lanyards, and lifelines with rope grab
3. Connecting means (e.g., snap hooks)
4. Anchor point (e.g., fixed railing, ship's mast) capable of supporting at least 5,000 lbs. per worker.



***All Eskola LLC employee required to work at heights 4ft. or more will be issued a Full Body Harness with Side D-rings, 4ft. Shock Absorbing Lanyard, Rope/Lifeline, and Rope Grab at the New Hire Orientation.**

All Eskola LLC employees on any project required to wear a personal fall arrest will follow these guidelines:

1. A Full Body Harness that properly fits the employee will be used whenever there is the potential for a fall from a height of 4 feet or more. The use of a safety belt is prohibited.



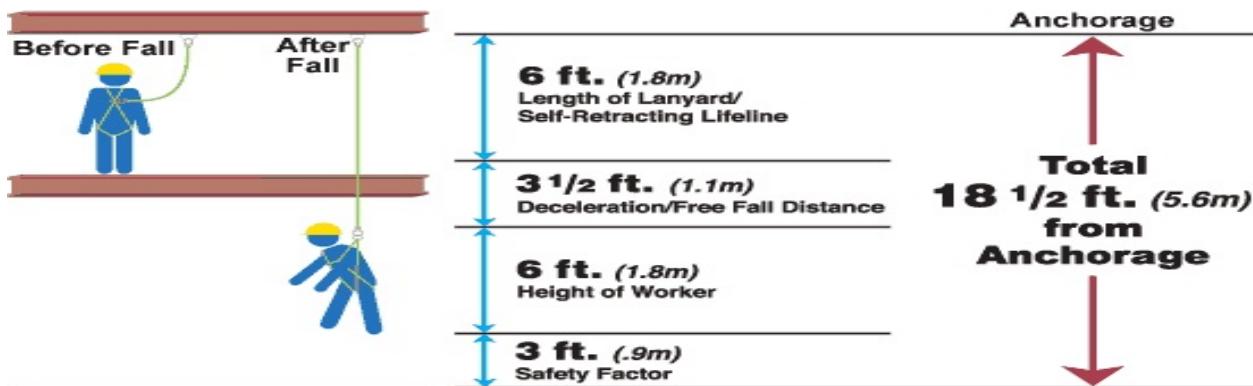
2. Only Shock Absorbing Lanyards or Retractable Lanyards are to be used in Fall Arrest Systems to keep impact forces at a minimum on the body.
3. Maximum deployment of the shock absorbing lanyard will not exceed 42 inches.
4. All **lanyards** will have **self-locking snap hooks**.
5. Any **Rope/Vertical Lifeline** must be equipped with a **Rope Grab** that locks to arrest the fall of an employee.
6. Any Anchor Point use for Personal Fall Arrest shall be capable of supporting at least 5,000 pounds (22.24 Kn) per employee attached, or shall be designed, installed, and used as follows: as part of a complete personal fall arrest system which maintains a safety factor of at least two; and under the direction and supervision of a qualified person. **1915.159(a)(9)**

OSHA Compliance Programs: Fall Protection (Continue)

Personal Fall Arrest System: (Continue)

7. All Employees are trained and required to calculate the PFAS clearance distance. Fall arrest system must be rigged so a worker can neither free fall more than 6 feet (4 in CA), nor contact any lower level. Deceleration devices used must not exceed 3.5 feet. The following factors can affect total fall distance: **(The image below illustrates how to calculate free fall distance when using fall protection)**

- Length of connecting means (e.g., lanyard length, use of shock absorbers, self-retractable lanyard, carabiners, snap hooks, etc.)
- Position and height of anchor points relative to work platform/area (always keep above the head whenever possible).
- Position of attachment and D ring slide on the full body harness.
- Deployment of shock absorbing lanyard (maximum 42 inches).
- Movement in the lifeline.
- The Initial position of a worker before free fall occurs (e.g., sitting, standing, etc.).



Eskola LLC employees are required to inspect all personal fall arrest equipment before each use. Any equipment that has deteriorated or is bent, damaged, or otherwise impacted will be removed from service and disposed of so that it cannot be used again.

Positioning Device Systems:

Positioning device systems consist of a Full Body Harness with Side D-rings and a Positioning Lanyard rigged to allow work on a vertical surface, such as a wall, with both hands-free.

All Eskola LLC employees are provided with a Full Body Harness with Side D-rings at the initial of employment, If the job requires the use of positioning device system to perform the job, Eskola LLC will issue positioning lanyards to all affected employees.

The Side D-rings from a Full body harness belt may only be used to prevent a fall (for work positioning), not as part of a fall arrest system. Any employee using positioning devices are also required to tie-off with a shock absorbing lanyard or Self-Retractable Lifeline in case of any Side D-rings failure



Positioning

OSHA Compliance Programs: Fall Protection (Continue)

Fall Restraint System:

Fall Restraint prevents people from reaching a fall hazard through a tie-off system. Fall restraint systems consist of **Full Body Harness**, **Fixed length lanyard “non-shock absorbing lanyard”**, and an **Anchor Point** with the capacity to withstand at least 3,000 pounds of force or twice the maximum expected force that is needed to restrain the worker from exposure to the fall hazard.



***The usage of Fall Restraint System as Fall Arrest System is prohibited. Failure to follow this policy may lead to termination.**

Engineered Horizontal Lifelines:

1. Horizontal lifelines shall be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.
2. Lifeline systems must be engineered to have appropriate anchor points; line strength designed to hold the number of individuals connected to it and to aid in the arrest of a fall, and durability in order to hold a fallen employee(s) suspended until a rescue can occur
3. Any Lifelines shall be protected against being cut or abraded.

Pre-Engineered Lifelines:

1. Pre-engineered lifeline system does not require to be designed or approved by an engineer qualified person, only installed by a competent person.
2. All Pre-engineered lifeline systems are designed and engineered by a manufacturer to ensure compliance with all OSHA regulations.
3. All employees will be properly trained on installation, storage, and maintenance of the equipment prior to its use.

Safety Monitor:

Eskola LLC will assign a competent person to monitor the safety of workers when another feasible fall protection system cannot be installed. **Before attempting the use of a safety monitor, employees will notify the supervisor or foreman on-site, if foreman/supervisor determines the need to use this system, then he/she shall notify Eskola Safety Manager for an approval. NO EXCEPTIONS!!!**

The Safety Monitors must be **Competent** to recognize any potential of fall hazards, capable of warning workers of fall hazard dangers and detecting unsafe work practices, located on the same walking or working surfaces of the workers to monitors them, and closed enough to work operations to communicate orally with workers and has no other duties to distract from the monitoring function

OSHA Compliance Programs: Fall Protection (Continue)

STORAGE AND MAINTENANCE OF FALL PROTECTION EQUIPMENT

1. Never store the personal fall arrest equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (e.g., sun, rain, snow, etc.).
2. Hang equipment in a cool, dry location in a manner that retains its shape.
3. Always follow manufacturer recommendations for inspections.
4. Clean with a mild, nonabrasive soap and hang to dry.
5. Never force dry or use strong detergents in cleaning.
6. Never store equipment near excessive heat, chemicals, moisture, or sunlight.
7. Never store in an area with exposures to fumes or corrosive elements.
8. Avoid dirt or other types of buildup on equipment.
9. Never use this equipment for any purpose other than personal fall arrest.
10. Once exposed to a fall, remove equipment from service immediately.

FALL PROTECTION TRAINING

All training sections will be documented containing the date, the name of the trainee and the name of the competent trainer.

Upon completion of the Fall Protection Training Session the employee will be **Competent** and have the knowledge to:

1. Recognize the fall hazards associated with their job sites.
2. Understand the hazards associated with working near fall hazards.
3. Work safely in hazardous areas by utilizing appropriate fall protection measures.
4. Understand and follow all components of this fall protection program.
5. Identify and understand the enforceable Department of Commerce/Occupational Safety and Health Administration (OSHA) standards and The American National Standards Institute (ANSI) standards that pertain to fall protection.

RESCUE PROCEDURES/METHODS

In the unlikely event where fall arrest occurs on-site, employees are encouraged to perform self-rescue or to climb back up to the roof, if that's not possible, the rescuers/co-workers will be using an articulating man lift or ladders where feasible to rescue the suspended employee. Alternative rescue methods will be discussed and documented at the beginning of the project with all JHA's or when a new hazard is introduced or recognized. In the event of a fall, the following people will be notified as soon as possible:

1. Rescue personnel (e.g., maintenance personnel).
2. Manager or supervisor.
3. Safety Manager.
4. The fire department and emergency medical services, if necessary.

All employees involved in a fall arrest or fall will immediately be sent for a medical evaluation to determine the extent of injuries, if any.

OSHA Compliance Programs: Fall Protection (Continue)

REQUIRED INSPECTIONS

Eskola LLC employees are required to inspect all fall protection equipment before each use. Any equipment that has deteriorated or is bent, damaged, or otherwise impacted will be removed from service, disposed of so that it cannot be used again. Employees are also instructed to inspect for any discoloration, burns, cuts, chemical damage or any signs of corrosion.

In conjunction with the inspection conducted by the employee prior to each use, **Eskola LLC Safety Manager (Competent Person) will conduct an annual inspection**; if any equipment found defective, damaged, or does not meet ANSI, OSHA, or the manufacturer's requirements, it will be removed from service and replaced by Eskola LLC at no cost of the employee.

FALL INVESTIGATION

All fall investigations will be conducted by Eskola's Safety Manager and Foreman in charge. The following documentation will be completed as part of the fall investigation:

1. Interviews with staff and witnesses.
2. Employee injury/accident report.
3. Supervisor injury/accident report.

FALL PROTECTION PROGRAM EVALUATION

This fall protection program will be evaluated periodically to determine its effectiveness. The following criteria will be used to evaluate its performance:

1. Accident reports.
2. Number of accidents.
3. Management/staff compliance with program components.
4. Periodic on-site audits.
5. Staff feedback and interviews.

RESPONSIBILITIES

All Eskola LLC employees are required to comply with this Program; If an employee has any questions about how a task should be done safely, he or she is under instruction **NOT** to begin the task until he or she discusses the situation with his or her supervisor. Together, they will determine the safe way to do the job. If, after discussing a safety situation with his or her supervisor, an employee still has questions or concerns, he or she and the supervisor are required to contact the **Safety Manager** at **(423) 736-1898**. **Failure to comply with this program will be considered as Gross Misconduct and may lead to termination.**

CONTRACTORS GUIDELINES

All outside contractors, working with or for Eskola LLC, are required to follow the guidelines set forth in this fall protection program. Contractors in the post-award meeting will be informed of these requirements as well as the on-site construction rules that apply.

OSHA Compliance Program: Hazcom/GHS

OBJECTIVE

The objective of this program is to set forth policies and procedures concerning Hazard Communication which will enhance the safety and well-being of Eskola LLC employees.

Furthermore, the execution of this program is designed to help Eskola LLC comply with the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard.

ASSIGNMENT OF RESPONSIBILITY

Dayner Gordillo (Safety Manager) and Mike Richardson (Operations Manager) are responsible for ensuring that responsible persons noted herein adhere to this program and report properly.

PROGRAM

The following items are to be followed to ensure compliance with the **OSHA Hazard Communication Standard (RIGHT TO KNOW) /GHS** and the safety of our employees.

HAZARDOUS CHEMICAL LIST

A list of the hazardous materials and chemicals used in the course of the Eskola LLC activities will be maintained and updated by Safety Manager. This list is to include all substances that require a Safety Data Sheet (SDS).

One copy of this list will be kept in the front of each SDS book and one copy will be kept on file with the Safety Department. For each chemical used in the workplace, an SDS sheet must be available on that job-site.

SAFETY DATA SHEETS (SDS)

Eskola LLC ensures that chemical manufacturers, distributors, or importers must provide Safety Data Sheets (SDS) for all obtained hazardous chemicals.

Safety Manager will keep all SDSs will in an organized fashion and will place a copy of the SDSs of all hazardous on Job Site Specific Book to be readily available for all employees to view at will. A duplicate set of SDS information will be maintained by the Safety Manager in the office.

SDS books and the Hazardous Chemical List will be maintained and kept up to date by Safety Manager. As obsolete SDSs are replaced by updated copies, they will be retained for 30 years.

Safety Manager will verify once every six months that SDSs correctly reflect chemical reformulations, improvements, or updates.

If a hazardous chemical or substance is received without a proper SDS, the receiving person will immediately notify the Safety Manager. Safety Manager will immediately contact the manufacturer or distributor of the product. If the manufacturer or distributor is unable to produce an SDS, the Safety Manager or Operations Manager will return the product to the supplier. (Note: Material Safety Data Sheets (MSDS) cannot be used after June 1, 2015.)

MULTI-EMPLOYER WORKPLACES

The Controlling Contractor or other employers of workplaces or projects that involve multiemployers will be provided a copy of this written program, and SDSs of all chemicals that may expose the employees of another employer(s). Eskola will request a copy of all SDSs that may expose Eskola employees from other involved employers who produce, use, or store hazardous chemicals in the workplace. All this information will be provided and available to all Eskola employees and subcontractors.

STORAGE

All storage areas for hazardous substances will be secured, properly ventilated, and identified by signs.

OSHA Compliance Program: Hazcom/GHS

LABELING AND PICTOGRAMS

Each container of a hazardous chemical must be properly labeled with the identity of the Hazardous material, the appropriate hazard warnings, pictogram(s), signal word(s), and the name and address of the manufacturer. Appropriate labels must be on all containers, regardless of size. Containers must be approved and recommended for storage and/or dispensing of the particular hazardous chemicals contained in them.

Worn and torn labels must be replaced. It is the responsibility of employees to report inappropriate labels to their supervisor. It is the responsibility of the Safety Manager to ensure that appropriate labels are in place and that replacement labels are available.

Portable containers of hazardous materials do not require labeling if the materials are transferred from labeled containers and are intended for immediate use by the employee who performs the transfer. Portable containers not immediately used will be emptied (and cleaned when necessary) within 30 minutes.

TRAINING

All Full-time and Temp employees, new hires, and contractors of Eskola LLC are required to be trained on the following:

1. Label elements;
2. Pictograms;
3. SDS format to facilitate recognition and understanding of the product, its required personal protective equipment (PPE), and first aid requirements;
4. The chemicals they will be exposed to;
5. Locations of SDSs; and
6. Chemicals in supply lines within the site.

(Note: If required, Department of Transportation (DOT) pictograms and identification placards should also be included in this training.)

Each affected employee working for or associated with Eskola LLC is required to review the training material with the Safety Manager and sign the acknowledgment form, which will be placed in the employee's file.

This training is to be done during the new employee orientation process before the new employee assumes status as an active employee and once every year as stated by State TOSHA.

Employees will receive training on any new hazardous chemical/material introduced into the workplace before the chemical/material is used or when changes are made to the program.

NON-ROUTINE TASKS

Before any non-routine task is performed, employees shall be advised, and/or they must contact the Safety Manager for special precautions to follow and Safety Manager shall inform any other employee who could be exposed.

If a non-routine task is necessary, Safety Manager will provide the affected employees with information about the activity as it relates to the specific chemicals expected to be encountered:

1. Specific chemical name(s) and hazard(s);
2. Personal protective equipment required and safety measures to be taken.
3. Measures that have been taken to lessen the hazards including ventilation, respirators;
4. Emergency procedures.

Safety Manager will contact each contractor before work starts to gather and disseminate any information concerning chemical hazards the contractor is bringing into the workplace.

PROGRAM COMPLIANCE

Any intentional violation or non-compliance with this program may result in the termination of the person or persons involved in accordance with company policy.

ATTACHMENT A

Acknowledgement of Receipt of Hazard Communication Training

My signature below acknowledges I have received training concerning Hazard Communications. I understand that this training fulfills the employee training requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard. The jobsite and classroom training included the following:

- A.** Understanding the purpose and scope of the OSHA Hazard Communication Standard.
- B.** Explanation of the existence of federal, state and local right-to-know laws.
- C.** Definition of the classification "hazardous chemical."
- D.** Explanation of situations and elements that must be present for a material to be considered a health hazard
- E.** Explanation and interpretation of labels, what is required on all containers, and the Hazard Materials Identification System (HMIS).
- F.** Understanding and interpretation of Safety Data Sheets and pictogram(s).
- G.** My responsibilities as an employee of Eskola LLC.
- H.** Policies and procedures to follow in case of exposure.

Employee Signature: _____

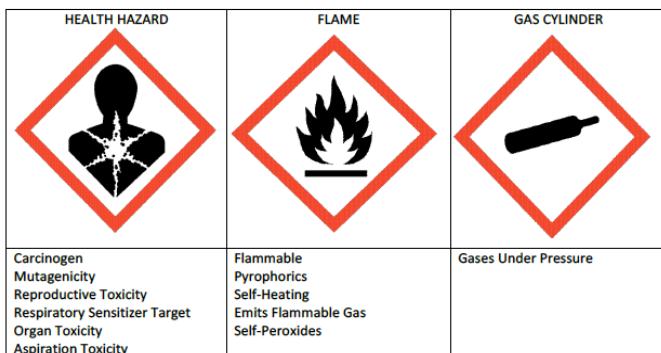
Date of Training: _____

OSHA Compliance Program: Hazcom/GHS

A1 ATTACHMENT B

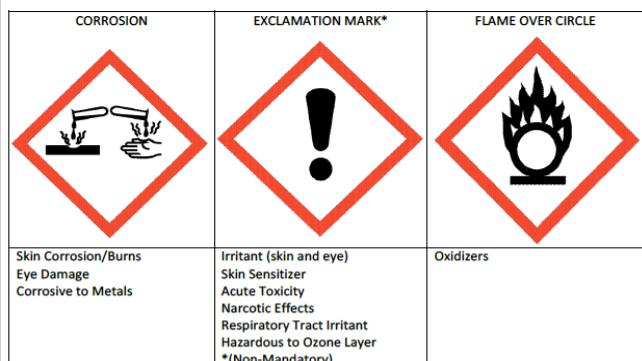
Example of Hazardous Materials and Chemicals List

Attachment C



Class Notes:

Attachment C Part 2



Class Notes:

OSHA Compliance Programs: Hazcom/GHS Program (Continue/Attachment C and D)

Attachment C Part 3

EXPLODING BOMB	SKULL AND CROSSBONES	ENVIRONMENT*

Class Notes:

Although, Environment is Non-Mandatory by OSHA, we must follow this Pictogram due to EAP and other regulation agencies.

Attachment D

Pictogram Memory Exercise



(Name this Pictogram)

(Name this Pictogram)

(Name this Pictogram)



(Name this Pictogram)

(Name this Pictogram)

(Name this Pictogram)



(Name this Pictogram)

OSHA Compliance Programs: Hazcom/GHS Program (Continue/Attachment E)

ATTACHMENT E

EXAMPLE OF STANDARDIZED LABEL

PRODUCT IDENTIFIER

CODE

Product Name

SUPPLIER IDENTIFICATION

Company Name

Street Address

City State

Postal Code Country

Emergency Phone Number

PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in 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 measure 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.

In Case of Fire: use dry chemical (BC) or carbon dioxide (CO₂) fire extinguisher to extinguish.

First Aid: If exposed call Poison Center. If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.

HAZARD PICTOGRAMS



SIGNAL WORD

Danger

HAZARD STATEMENT

Highly flammable liquid and vapor.

May cause liver and kidney damage.

SUPPLEMENTAL INFORMATION

Directions for use

Fill weight: Lot Number

Gross weight: Fill Date: Expiration Date:

ATTACHMENT F

SECTIONS ON A SAFETY DATA SHEET

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format that must include the section numbers, headings, and associated information listed below:

Section 1, Identification

Includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; and restrictions on use.

Section 2, Hazard(s) identification

Includes all hazards regarding the chemical and required label elements.

Section 3, Composition/information on ingredients

Includes information on chemical ingredients and trade secret claims.

Section 4, First-aid measures

Includes important symptoms/effects, including acute or delayed and required treatment.

Section 5, Fire-fighting measures

Lists suitable extinguishing techniques and equipment and chemical hazards from fire.

Section 6, Accidental release measures

Lists emergency procedures; protective equipment; proper methods of containment; and cleanup.

Section 7, Handling and storage

Lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection Lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; and personal protective equipment.

Section 9, Physical and chemical properties

Lists the chemical's characteristics.

Section 10, Stability and reactivity Lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information

Includes routes of exposure; related symptoms including acute and chronic effects; and numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information

Includes the date of preparation or last revision.

Employers must ensure that SDSs are readily accessible to employees.

See Appendix D of 29 CFR 1910.1200 for a detailed description of SDS contents.

***Note:** Since other agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 of 29 CFR 1910.1200(g)(2).

OSHA Compliance Programs: Hearing Conservation

OBJECTIVE

The objective of the **Eskola LLC** hearing Conservation Program is to minimize occupational hearing loss by providing hearing protection, training, and annual hearing tests to all persons working in areas or with equipment that have noise levels equal to or exceeding an eight-hour time-weighted average (TWA) sound limit of 85 dBA (decibels measured on the A scale of a sound level meter). A copy of this program will be maintained by all affected departments. A copy of OSHA's Hearing Conservation Standard, 29 CFR 1910.95, can be obtained from **Dayner Gordillo (Safety Manager)**. A copy of the standard will also be posted in areas with affected employees.

MANAGEMENT RESPONSIBILITY

1. Use engineering and administrative controls to limit employee exposure.
2. Provide adequate hearing protection for employees.
3. Post signs and warnings in all high noise areas.
4. Conduct noise surveys annually or when new equipment is needed.
5. Conduct annual hearing test for all employees.
6. Conduct hearing conservation training for all new employees.
7. Conduct annual hearing conservation training for all employees.

EMPLOYEES RESPONSIBILITY

1. Use company-issue approved hearing protection in designated high noise areas.
2. Request new hearing protection when needed.
3. Exercise proper care of issued hearing protection.

PROCEDURES

Noise Monitoring

Monitoring for noise exposure levels will be conducted by **Safety Manager**. It is the responsibility of the individual departments to notify **Supervisor or Foreman** when there is a possible need for monitoring. Monitoring will be performed with the use of sound level meters and personal dosimeters at the discretion of **Safety Department**.

Monitoring will also be conducted whenever there is a change in equipment, process or controls that affect the noise levels. This includes the addition or removal of machinery, alteration in building structure, or substitution of new equipment in place of that previously used. The responsible supervisor must inform **Safety Manager** when these types of changes are instituted.

Hearing Protection

Management, supervisors, and employees shall properly wear the prescribed hearing protection while working or traveling through any area that is designated as a high noise area.

Hearing protection will be provided at no cost to employees who perform tasks designated as having a high noise exposure and replaced as necessary. It is the supervisor's responsibility to require employees to wear hearing protection when noise levels reach or exceed 85 dBA. Those employees will have the opportunity to choose from at least two different types of hearing protection.

Personal stereo headsets, or "Walkmen," are not approved for hearing protection and are not permitted in any operating area of company property.

If Signage is required in areas that necessitate hearing protection. It is the responsibility of **Safety Department** to provide signage to the appropriate areas.

Preformed earplugs and earmuffs should be washed periodically and stored in a clean area. Foam inserts should be discarded after each use. Hands should be washed before handling preformed earplugs and foam inserts to prevent contaminants from being placed in the ear.

OSHA Compliance Program: Hearing Conservation (Continue)

Hearing Protector Attenuation

Hearing protectors shall be adequate to provide sufficient attenuation for the specific noise environments in which the protector will be used. Appendix B ("Methods for Estimating the Adequacy of Hearing Protection Attenuation") of 29 CFR 1910.95 shall be used to make this determination. Hearing protectors must attenuate employee exposure at least to an 8-hour time-weighted average of 90 decibels. For employees who have experienced a standard threshold shift, hearing protectors must attenuate employee exposure to an 8-hour time-weighted average of 85 decibels or below.

- The adequacy of hearing protector attenuation shall be re-evaluated whenever employee noise exposures increase to the extent that the hearing protectors provided may no longer provide adequate attenuation.

Audiograms/Hearing Tests

Employees subject to the Hearing Conservation Program who have time-weighted average (TWA) noise exposures of 85 dBA or greater for an eight (8) hour work shift will be required to have both a baseline and annual audiogram. The audiograms will be provided by the **Eskola LLC** and conducted by **Safety Department** at no cost to the employee.

The baseline audiogram will be given to an employee within one (1) month of employment with **Eskola LLC** and before any exposure to high noise levels. Annual audiograms will be performed within one year from the date of the previous audiogram. It is the responsibility of the individual and **Safety Department** to schedule the annual audiogram.

If an annual audiogram shows that an employee has suffered a standard threshold shift, the employee will be retested within thirty (30) days of the annual audiogram. If the retest confirms the occurrence of a standard threshold shift, the employee will be notified in writing within twenty-one (21) days of the confirmation. Employees who do experience a standard threshold shift will be refitted with hearing protection and provided more training on the effects of noise. All records of exposure will maintain by **Safety Department** for the employees' employment and 5 years after employee's separation or termination.

Testing to establish a baseline audiogram shall be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise.

EMPLOYEE TRAINING

Affected employees will be required to attend training concerning the proper usage and wearing of hearing protection. The training will be conducted by **Safety Manager**, or a designated representative, within a month of hire and annually thereafter. Training shall consist of the following components:

1. how noise affects hearing and hearing loss;
2. review of the OSHA hearing protection standard;
3. explanation of audiometric testing;
4. rules and procedures;
5. locations within company property where hearing protection is required; and
6. how to use and care for hearing protectors.

Training records will be maintained by **Safety Department** (see APPENDIX A)

APPENDIX A – HEARING CONSERVATION TRAINING LOG

Training Date: _____

Topic: _____

Training Conducted by: _____

Employee Name (printed)	Employee Signature	Job Title

APPENDIX B – RESULTS OF NOISE MONITORING

Date of monitoring results	Description Job/Task evaluated (i.e. "operating riding mower")	Conditions at hand during monitoring (i.e. "Operating unit 23, without cab")	Results	Hearing protection required or voluntary
08/25/2017	Generator Motor	Operating Generator with 5ft to 10ft from working station	85 dB	Required
08/25/2017	Generator Motor	Operating Generator with 11ft to 15ft	60 dB	Voluntary
08/25/2017	Drilling on metal rib	Drill on metal rib	95 dB	Required
08/25/2017	Operating Air Blower	Operator and Personal Within 10ft of operation	92dB	Required

OSHA Compliance Programs: Personal Protective Equipment (PPE)

PURPOSE

To establish safety requirements and policy guidance on the usage of personal protective equipment (PPE) and to help Eskola LLC comply with the Occupational Safety and Health Administration's Personal Protective Equipment Standard.

SCOPE

This section is applicable to all Eskola LLC employees who perform tasks requiring PPE, including: equipment for eyes, face, hand, arm, legs, clothing, and protective shields. All safety equipment must meet American National Standards Institute (ANSI) Standards and will carry markings of approval.

DEFINITIONS

PPE- Personal Protective Equipment

Foot & Leg Protection- Fully extended boots which provide protection for the legs. Safety-toe footwear for employees must meet the requirements and specifications in American National Standard for Men's Safety-Toe Footwear; ANSI certified footwear is typically available through manufacturers and distributors of safety related equipment.

Body Fire Protection - Fire resistive coats and protective trousers will be at least equivalent to the requirements of the National Fire Protection Association (NEPA).

Hand Protection -Protective gloves or glove system which will provide protection against cut, puncture, and heat penetration.

Eye and Face Protection - protection when workers are exposed to **eye** or **face** hazards such as flying objects, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation and protection must meet the requirements of ANSI (American National Standards Institute) standards.

Head Protection - Head protection will consist of a protective head device which meets the performance, construction, and testing requirements of the National Fire Safety and Research Office of the National Fire Prevention and Control Administration.

Hearing Protection - Hearing protector is the device used to prevent noise induced **hearing** loss.

Respiratory Protection – prevents exposure to air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, vapors, or sprays, and thus to prevent occupational illness.

EMPLOYER RESPONSIBILITIES

Eskola LLC have the obligation as employer of verifying that a job hazard analysis has been done through a written verification that identifies the workplace evaluated, the person certifying the evaluation, and the date of the assessment. These job hazard analyses apply specifically to OSHA regulations covering eye and face protection, head protection, foot protection, and hand protection.

Job hazard analyses will determine whether employees are exposed to hazardous conditions. All JSA's will be signed by the persons doing the analysis. If hazardous conditions exist, or are likely to exist, it is imperative to:

1. Choose the type of PPE that will protect employees.
2. Notify employees about the kind of equipment needed.
3. Choose PPE that properly fits each employee.
4. Train each employee in the usage and care of PPE.

***Eskola LLC will provide and replace any required or necessary Personal Protective Equipment at no cost to the employee, except when employees have lost or intentionally damaged the PPE.**

OSHA Compliance Program: Personal Protective Equipment (PPE) (Continue)

EMPLOYEES RESPONSABILITIES

1. Employees are required to wear any PPE as describe on JSA.
2. Employees must keep all PPE clean and in good condition. In cases where Eskola employees provide their own equipment, employees will verify with the Eskola's Safety, if the equipment is the right type and is properly maintained to ensure protection.
3. Employees will ensure to inspect their Personal Prospective Equipment prior to use daily.
4. Employees must report any damaged or defective PPE to the supervisor to get a replacement.
5. Employees not be wear and will be discarded any damaged or defective PPE.

***If an employee has lost or intentionally damaged the PPE, a replacement will be given at the cost to the employee.**

PROCEDURES

Eye and Face Protection

1. In general, eye protection and face shields must be appropriate for the particular hazards to which the employees are expected. Visors are appropriate for that operation where splashing is a hazard. In high heat environments, a special wire screen visor may be worn that allows the heat to dissipate and permits maximum vision for the wearer. Goggles are recommended in situations involving dust, flying particles, sparks noxious gases, corrosive liquid splashes, and radiation from welding.
2. Safety glasses with eye shields are to be worn whenever there is hazard present to the eyes. Employees who wear prescription glasses must have eye protection that meets ANSI Z87.1 standards.
3. Employees must use eye and face protection when they are exposed to hazards that may create flying particles when performing a task such as during welding, cutting, grinding, nailing (or when working with concrete and/or harmful chemicals or when exposed to flying particles). Protective eye and face devices must comply with ANSI Z87.1-2015, American National Standard Institute.
4. In order to protect employees from harmful light radiation, each employee must use equipment with filter lenses that have a shade number appropriate for the work being performed.
5. Cup goggles provide added protection where there is the combined hazard of flying particles and severe impact. Some cup goggles also provide ventilation and protection against dust hazards in cement plant, foundries, and compressed air operations. When worn in conjunction with a face shield, cup goggles provide good protection against acids, caustics, and chemicals, and are recommended for babbitting, how metal casting and hot metal bath dripping. Face shields are not recommended for use by themselves as basic eye protection since they do not provide impact protection; instead they should be worn over basic eye protection.
6. Eye and face equipment should be comfortable, easy to clean, and capable of being disinfected. The fit must be snug enough to protect properly yet not restrict the movement of the wearer.
7. Eye protection should be cleaned regularly and checked daily for cracks, scratches, pits, or fading. Badly chipped or harmed lenses indicate that the surface is broken and should not be used. Safety glasses should be evaluated periodically to ensure that the optical density provided is still at the desired wavelength.

Hard Hats

Employees are to be worn at all time on the jobsites where there is potential for head injuries such as bumps or falling objects.

OSHA Compliance Program: Personal Protective Equipment (PPE) (Continue)

Foot Protection

1. Type of footwear will be determined by the Job Safety Analysis.
2. Protective footwear must comply with ANSI Z41-1999, "American National Standard for Personal "Protection-Protective Footwear".

Hearing Protection - must be worn at all time when the sounds exceed 85 dBA.

Respiratory Protection - must be worn to prevents exposure to air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, vapors, or sprays, and thus to prevent occupational illness.

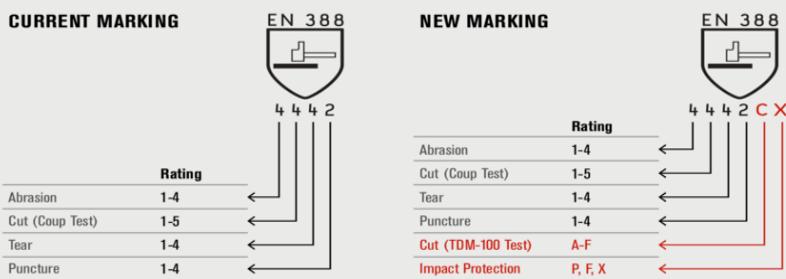
Fall Protection- Personal Fall Protection must be worn to protect employees when performing any task on height over 6ft. for Construction and 4 ft. in General Industry.

Hand Protection- must be worn at all times when performing a task that may represent hazard to employee's hands. Hand Protection must be selected according to the task and depending on the hazard represented.

1. If employee is handling a hazardous chemical, then a chemical resistant must be worn.
2. If employee is handling a sharp object, then a cut resistant must be worn either ANSI or EN388 scale of 4 or grader. **Please referred to the attachment below for more information.**

EN 388 2016 Standard

Currently, on many cut resistant gloves sold in North America, you will find the EN 388 marking. The EN 388, similar to ANSI/ISEA 105, is the European standard used to evaluate mechanical risks for hand protection. Gloves with a EN 388 rating are third party tested, and rated for abrasion, cut, tear, and puncture resistance. Cut resistance is rated 1-5, while all other physical performance factors are rated 1-4. Up until now, the EN 388 standard used only the "Coup Test" to test for cut resistance. The new EN 388 2016 standard uses both the "Coup Test" and the "TDM-100 Test" to measure cut resistance for a more accurate score. Also included in the updated standard is a new Impact Protection test.



TRAINING REQUIREMENTS

Eskola employees will be trained and documented and will show understanding of the following:

- When personal protective equipment is necessary
- What equipment is necessary
- How to put on, take off, and wear the equipment
- The useful life of the equipment, and how to maintain and dispose of it when necessary.
- The limitation of the equipment.

Retraining will be provided when the workplace changes, the PPE changes or the employee shows lack of use, improper use or lack of understanding or insufficient skill in the use of the PPE.

DISCIPLINARY ACTION

Every Eskola employee is responsible and required to comply with this policy, failure to comply with these policies may result in disciplinary actions.

OSHA Compliance Program: Respiratory Protection

SCOPE

These guidelines established the requirements to be followed by Eskola LLC employees when selecting and using respirators (including **disposable dust masks**).

PURPOSE

To adequately train, protect and provide suitable respiratory protection to employees in those work situations when physical harm may result from breathing contaminated air or oxygen deficient atmospheres. Additionally, the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134 will also be met.

EMPLOYER RESPONSIBILITIES

Dayner Gordillo (Eskola' Safety Representative) is responsible for the implementation and administering of the Respiratory Protection Program, including:

1. The development of the written Respiratory Protection Program.
2. The identification of employee exposure to hazardous materials.
3. The development of Standard Operating Procedures (SOP's) governing respiratory use and the selection of respiratory protection equipment based on these procedures.
4. Assure employees required to wear respirators have participated in the following:
 - Respiratory Protection training
 - Medical surveillance
 - Qualitative or quantitative fit-testing
6. Assures to document and file all respiratory protection training sections.
7. Assures that each Crew Supervisor understands that they are responsible for ensuring the cleaning, maintenance, and storage of respiratory protection at his or her jobsite.
8. Furnish all respiratory equipment at no cost to the employee.
9. Furnish only NIOSH approved respirators and ensure the correct respirator is chosen for the hazard that the worker is to be subjected to.
10. Ensures the employees are clean shaven and there is no seal leakage if glasses are worn.
11. Ensure employees understand they are to leave the work area to wash their hands, change cartridges or if there is a cartridge breakthrough.
12. Ensures that no employee will be exposed to an Immediately Dangerous to Life or Health (IDLH) environment.

EMPLOYEE RESPONSIBILITIES

Do not perform operations requiring respirators, unless you have been approved for use of respirators, fitted and trained the company's respiratory protection program.

1. Inspect respirators for cracked or worn parts before and after each use and after cleaning.
2. Do not work in an area that requires the use of respiratory equipment, if you fail to obtain a tight seal between the respirator and your face.
3. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.
4. Using the respirator supplied in accordance with the training and the SOP's.
5. Cleaning, disinfecting, inspecting and storage in accordance with the training, the SOP's and manufactures recommendations after each use.
6. Leaving the contaminated area immediately if the respiratory protection fails for any reason (blocked or leaking filters, a strap break, or loss of an exhalation valve cover).
7. Reporting a respirator malfunction to the supervisor.
8. Participating in all Respiratory Protection Program components such as medical surveillance, fit-testing, and respirator training.
9. Familiarizing themselves with the Employee Rules for Respirator Wear

OSHA Compliance Program: Respiratory Protection

MEDICAL SURVEILLANCE

Each employee who wears a respirator undergoes a baseline medical evaluation before the equipment is worn.

1. A medical history emphasizing the presence and degree of cardiopulmonary complaints.
2. A comprehensive occupational history detailing prior respirator use, if any and any difficulties experienced.
3. A physical exam with special emphasis on the cardiopulmonary systems.
4. Pulmonary function studies including forced expiratory volume in one second (FEV1) and forced vital capacity (FVC).
5. A resting electrocardiogram for those employees over 40 years of age or any who exhibits signs or symptoms of cardiac disease.
6. The medical exam will be given during normal working hours and be confidential, convenient and understandable and the employee may meet privately and discuss the medical exam with the physician or licensed health care provider doing the exam.

Based on this information, the physician determines if the employee is able to perform work activities using respiratory protection equipment.

- The medical evaluation is performed by or under the supervision of a physician with a pulmonary specialty.
- The physician performing the medical evaluation is provided with a letter explaining the locations' Respirator Program and the Medical Evaluation Requirements for Respirator Users. A copy of the corresponding SOP(s) is also included in the information provided to the physician.
- Upon completion of the medical evaluation, the physician is asked to complete the Physician's Evaluation Form and return it to the location Administrator along with any supporting medical documentations.
- The respirator user's medical status (i.e., medical history, difficulties experienced wearing the equipment, etc.) is reviewed annually by a physician. If problems are noted by the physician, a follow-up medical evaluation is arranged by the location Administrator.
- All medical evaluation records are retained in the employee's personnel file for the duration of employment and 30 years thereafter.

FIT-TESTING

When a determination has been made as to the type or respiratory protection to be worn based on the SOP and the employee is physically able to wear the equipment, qualitative fit-testing is conducted to ensure a proper fit.

To perform the fit-testing, the employee wears the respirator specified by the SOP, in the size that fits the employee's face comfortably. The employee is briefly exposed to a test atmosphere containing one of the following to test the fit of the respirator.

1. Saccharin aerosol
2. Isoamyl Acetate (banana oil)
3. Irritant Smoke (NIOSH approved)

If at any time during the fit-test the employee can taste or smell the fit-testing agent (or cough in the case of irritant smoke), the respirator's fit is adjusted.

OSHA Compliance Program: Respiratory Protection

FIT-TESTING (Continue)

If, after several tests and adjustments the respirator fails to fit, the fit-test is repeated using the next larger or smaller size respirator. The fit-test is continued until the employee can be exposed to the test atmosphere without detecting it.

The size and type of respiratory protection an employee has been fit-tested on is noted on the Respirator User Fit-Test Record. Each employee's fit-test record is kept in his or her personnel file.

The fit-test is repeated each time the user receives a different type of respirator, face piece, or if the wearer undergoes significant changes in facial features, dental configuration, or body weight.

CLEANING, INSPECTION, AND STORAGE

1. All single-use disposable respirators are discarded at the end of their useful life. These respirators are not cleaned and reused under any circumstances.
2. Respirator is washed and disinfected by the employee after each day of use.
3. When the respirator is dry it is inspected, and defective parts are replaced.
4. The parts used to replace defective respirator components are manufactured by the same company as the respirator itself for the specific model of respirator. This also applies to replacement cartridges and filters.
5. After cleaning and inspecting, the respiratory protection equipment is placed in a clean plastic bag. The respirator is stored in an undistorted position in a place providing protection from dust, sunlight, heat, extreme cold, excessive moisture, damaging chemicals, and mechanical damage.
6. A record of the respirator cleaning and inspection is dept. by the equipment user, using the Respirator Cleaning and Inspection Log. On a monthly basis, these logs are collected and are retained for a period of one year.

RESPIRATORY PROTECTION TRAINING

Each respirator user participates in an initial Respirator Training Program before being issued a respirator and an annual refresher.

All supervisors who have the responsibility of assigning employees to work activities requiring respiratory protection also take part in the training.

All Training sections will be document and kept by the Safety Department.

SELF-CONTAINED BREATHING APPARATUS (SCBA)

The use of SCBA for respiratory protection may be necessary during certain work activates that are performed by the employee. Proper operation of SCBA requires the following special precautions and additional operating procedures:

1. SCBA is not used for work activities unless specified by the Safety Department.
2. In addition to the requirements detailed in the Respiratory Protection Program (i.e., medical evaluations, fit-testing, etc.), the users complete a rigorous training program in SCBA operation and emergency-use procedures. Training on the operation of SCBA is conducted in conjunction with the equipment vendor and arranged through the Safety Department.
3. SCBA training is repeated annually.

OSHA Compliance Programs: Silica Dust

PURPOSE

This Respirable Crystalline Silica Program was developed to prevent employee exposure to hazardous levels of Respirable Crystalline Silica that could result through construction activities or nearby construction activities occurring on worksites. Respirable Crystalline Silica exposure at hazardous levels can lead to lung cancer, silicosis, chronic obstructive pulmonary disease, and kidney disease. It is intended to meet the requirements of the Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153) established by the Occupational Safety and Health Administration (OSHA).

All work involving chipping, cutting, drilling, grinding, or similar activities on materials containing Crystalline Silica can lead to the release of respirable-sized particles of Crystalline Silica (i.e. Respirable Crystalline Silica). Crystalline Silica is a basic component of soil, sand, granite and many other minerals. Quartz is the most common form of Crystalline Silica. Many materials found on construction sites include Crystalline Silica; including but not limited to – cement, concrete, asphalt, pre-formed structures (inlets, pipe, etc.) and others. Consequently, this program has been developed to address and control these potential exposures to prevent our employees from experiencing the effects of occupational illnesses related to Respirable Crystalline Silica exposure.

SCOPE

This Respirable Crystalline Silica Program applies to all Eskola LLC employees who have the potential to be exposed to Respirable Crystalline Silica when covered by the OSHA Standard. The OSHA Respirable Crystalline Silica Construction Standard applies to all occupational exposures to Respirable Crystalline Silica in construction work, except where employee exposure will remain below 25 micrograms of Respirable Crystalline Silica per cubic meter of air ($25 \mu\text{g}/\text{m}^3$) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

Safety Manager Responsibilities:

1. Conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an employee's exposure will be above $25 \mu\text{g}/\text{m}^3$ as an 8-hour TWA under any foreseeable conditions.
2. Select and implement into the project's ECP the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1; and potentially including (but not limited to) - a written Exposure Control Plan (ECP), exposure monitoring, Hazard Communication training, medical surveillance, housekeeping and others.
3. Ensure that the materials, tools, equipment, personal protective equipment (PPE), and other resources (such as worker training) required to fully implement and maintain this Respirable Crystalline Silica Program are in place and readily available if needed.
4. Ensure that Project Managers, Site Supervisor, Competent Persons, and employees are educated in the hazards of Silica exposure and trained to work safely with Silica in accordance with OSHA's Respirable Crystalline Silica Construction Standard and OSHA's Hazard Communication Standard. Managers and Competent Persons may receive more advanced training than other employees.
5. Maintain written records of training (for example, proper use of respirators), ECPs, inspections (for equipment, PPE, and work methods/practices), medical surveillance (under lock and key), respirator medical clearances (under lock and key) and fit-test results.
6. Conduct an annual review (or more often if conditions change) of the effectiveness of this program and any active project ECP's that extend beyond a year. This includes a review of available dust control technologies to ensure these are selected and used when practical.
7. Coordinate work with other employers and contractors to ensure a safe work environment relative to Silica exposure.

OSHA Compliance Programs: Silica Dust

Project Managers Responsibilities:

1. Ensure all applicable elements of this Respirable Crystalline Silica Program are implemented on the project including the selection of a Competent Person.
2. Assist Safety Manager in conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an ECP, exposure monitoring, and medical surveillance is necessary.
3. Assist in the selection and implementation of the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1; and potentially including (but not limited to) - a written Exposure Control Plan (ECP), exposure monitoring, Hazard Communication training, medical surveillance, housekeeping and others.
4. Ensure that employees using respirators have been properly trained, medically cleared, and fit-tested in accordance with the company's Respiratory Protection Program. This process will be documented.
5. Ensure that work is conducted in a manner that minimizes and adequately controls the risk to workers and others. This includes ensuring that workers use appropriate engineering controls, work practices, and wear the necessary PPE.
6. Where there is risk of exposure to Silica dust, verify employees are properly trained on the applicable contents of this program, the project-specific ECP, and the applicable OSHA Standards (such as Hazard Communication). Ensure employees are provided appropriate PPE when conducting such work.

Competent Person and/or Site Supervisors/Forman Responsibilities:

1. Make frequent and regular inspections of job sites, materials, and equipment to implement the written ECP.
2. Identify existing and foreseeable Respirable Crystalline Silica hazards in the workplace and take prompt corrective measures to eliminate or minimize them.
3. Notify the Project Manager and/or Safety Manager of any deficiencies identified during inspections in order to coordinate and facilitate prompt corrective action.
4. Assist the Project Manager and Safety Department in conducting job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an ECP, exposure monitoring, and medical surveillance is necessary.

Employees Responsibilities:

1. Follow recognized work procedures (such as the Construction Tasks identified in OSHA's Construction Standard Table 1) as established in the project's ECP and this program.
2. Use the assigned PPE in an effective and safe manner.
3. Participate in Respirable Crystalline Silica exposure monitoring and the medical surveillance program.
4. Report any unsafe conditions or acts to the Site Manager and/or Competent Person.
5. Report any exposure incidents or any signs or symptoms of Silica illness.

OSHA Compliance Programs: Silica Dust

DEFINITIONS

If a definition is not listed in this section, please contact your supervisor. If your supervisor is unaware of what the term means, please contact the Competent Person or your Safety Department.

- **Action Level** means a concentration of airborne Respirable Crystalline Silica of 25 µg/m³, calculated as an 8-hour TWA.
- **Competent Person** means an individual who is capable of identifying existing and foreseeable Respirable Crystalline Silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them.
- **Employee Exposure** means the exposure to airborne Respirable Crystalline Silica that would occur if the employee were not using a respirator.
- **High-Efficiency Particulate Air (HEPA) Filter** means a filter that is at least 99.97 percent efficient in removing monodispersed particles of 0.3 micrometers in diameter.
- **Objective Data** means information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to Respirable Crystalline Silica associated with a particular product or material or a specific process, task, or activity. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.
- **Permissible Exposure Limit (PEL)** means the employer shall ensure that no employee is exposed to an airborne concentration of Respirable Crystalline Silica in excess of 50 µg/m³, calculated as an 8-hour TWA.
- **Physician or Other Licensed Health Care Professional (PLHCP)** means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all of the particular health care services required by the Medical Surveillance Section of the OSHA Respirable Crystalline Silica Standard.
- **Respirable Crystalline Silica** means Quartz, Cristobalite, and/or Tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle size- selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality-Particle Size Fraction Definitions for Health-Related Sampling.
- **Specialist** means an American Board-Certified Specialist in Pulmonary Disease or an American Board-Certified Specialist in Occupational Medicine.

SPECIFIED EXPOSURE CONTROL METHODS

When possible and applicable, Eskola LLC will conduct activities with potential Silica exposure to be consistent with OSHA's Construction Standard Table 1. Supervisors will ensure each employee under their supervision and engaged in a task identified on OSHA's Construction Standard Table 1 have fully and properly implemented the engineering controls, work practices, and respiratory protection specified for the task on Table 1 (unless Eskola LLC has assessed and limited the exposure of the employee to Respirable Crystalline Silica in accordance with the Alternative Exposure Control Methods Section of this program).

The task(s) being performed by Eskola LLC identified on OSHA's Construction Standard Table 1 is/are:

OSHA Compliance Programs: Silica Dust Table 1: Specified Control Methods

Table 1: Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
1	Stationary masonry saws	<ul style="list-style-type: none"> ◆ Use saw equipped with integrated water delivery system that continuously feeds water to the blade. ◆ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
2a	Handheld power saws (any blade diameter) when used outdoors	<ul style="list-style-type: none"> • Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
2b	Handheld power saws (any blade diameter) when used indoors or in an enclosed area	<ol style="list-style-type: none"> 1. Use saw equipped with integrated water delivery system that continuously feeds water to the blade. 2. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
3	Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) for tasks performed outdoors only	<ul style="list-style-type: none"> • Use saw equipped with commercially available dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency. 	None	None
4a	Walk-behind saws when used outdoors	<ul style="list-style-type: none"> • Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None

OSHA Compliance Programs: Silica Dust Table 1: Specified Control Methods

4b	Walk-behind saws when used indoors or in an enclosed area	<ul style="list-style-type: none"> Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
5	Driveable saws for tasks performed outdoors only	<ul style="list-style-type: none"> Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
6	Rig-mounted core saws or drills	<ul style="list-style-type: none"> Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
7	Handheld and stand-mounted drills (including impact and rotary hammer drills)	<ul style="list-style-type: none"> Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes. 	None	None
8	Dowel drilling rigs for concrete for tasks performed outdoors only	<ul style="list-style-type: none"> Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
9a	Vehicle-mounted drilling rigs for rock and concrete	<ul style="list-style-type: none"> Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector. 	None	None
9b	Vehicle-mounted drilling rigs for rock and concrete	<ul style="list-style-type: none"> Operate from within an enclosed cab and use water for dust suppression on drill bit. 	None	None
10a	Jackhammers and handheld powered chipping tools when used outdoors	<ul style="list-style-type: none"> Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. 	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10b	Jackhammers and handheld powered chipping tools when used outdoors	<ul style="list-style-type: none"> Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. 	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask

OSHA Compliance Programs: Silica Dust Table 1: Specified Control Methods

10c	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	<ul style="list-style-type: none"> • Use tool equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
11	Handheld grinders for mortar removal (i.e., tuck-pointing)	<ul style="list-style-type: none"> • Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	Powered Air-Purifying Respirator (PAPR) with P100 Filters
12a	Handheld grinders for uses other than mortar removal for tasks performed outdoors only	<ul style="list-style-type: none"> • Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
12b	Handheld grinders for uses other than mortar removal when used outdoors	<ul style="list-style-type: none"> • Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. 	None	None
12c	Handheld grinders for uses other than mortar removal when used indoors or in an enclosed area	<ul style="list-style-type: none"> • Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. 	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
13a	Walk-behind milling machines and floor grinders	<ul style="list-style-type: none"> • Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None

OSHA Compliance Programs: Silica Dust Table 1: Specified Control Methods

13b	Walk-behind milling machines and floor grinders	<ul style="list-style-type: none"> • Use machine equipped with dust collection system recommended by the manufacturer. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes. 	None	None
14	Small drivable milling machines (less than half-lane)	<ul style="list-style-type: none"> • Use a machine equipped with supplemental water sprays designed to suppress dust. • Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions. 	None	None
15a	Large drivable milling machines (half-lane and larger) for cuts of any depth on asphalt only	<ul style="list-style-type: none"> • Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions. 	None	None
15b	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	<ul style="list-style-type: none"> • Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions. 	None	None
15c	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	<ul style="list-style-type: none"> • Use a machine equipped with supplemental water spray designed to suppress dust. • Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions. 	None	None
16	Crushing machines	<ul style="list-style-type: none"> • Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyors, sieves/sizing or vibrating components, and discharge points). • Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. • Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote-control station. 	None	None
17a	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	<ul style="list-style-type: none"> • Operate equipment from within an enclosed cab. 	None	None

OSHA Compliance Programs: Silica Dust Table 1: Specified Control Methods

17b	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	<ul style="list-style-type: none"> When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions. 	None	None
18a	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	<ul style="list-style-type: none"> Apply water and/or dust suppressants as necessary to minimize dust emissions. 	None	None
18b	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	<ul style="list-style-type: none"> When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab. 	None	None

When implementing the control measures specified in Table 1, Eskola LLC shall:

1. For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;
2. For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust;
3. For measures implemented that include an enclosed cab or booth, ensure that the enclosed cab or booth:
 - Is maintained as free as practicable from settled dust;
 - Has door seals and closing mechanisms that work properly;
 - Has gaskets and seals that are in good condition and working properly;
 - Is under positive pressure maintained through continuous delivery of fresh air;
 - Has intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better); and
 - Has heating and cooling capabilities.
4. Where an employee performs more than one task included on OSHA's Construction Standard Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

OSHA Compliance Programs: Silica Dust (Continue)

ALTERNATIVE EXPOSURE CONTROL METHODS

Alternative Exposure Control Methods apply for tasks not listed in OSHA's Construction Standard Table 1, or where Eskola LLC cannot not fully and properly implement the engineering controls, work practices, and respiratory protection described in **Table 1**.

First, Eskola LLC will assess the exposure of each employee who is or may reasonably be expected to be exposed to Respirable Crystalline Silica at or above the Action Level in accordance with either the Performance Option or the Scheduled Monitoring Option.

1. Performance Option

Eskola, LLC will assess the 8-hour TWA exposure for each employee on the basis of any combination of air monitoring data or objective data sufficient to accurately characterize employee exposures to Respirable Crystalline Silica.

2. Scheduled Monitoring Option:

- Eskola LLC will perform initial monitoring to assess the 8-hour TWA exposure for each employee on the basis of one or more personal breathing zone air samples that reflect the exposures of employees on each shift, for each job classification, and in each work area. Where several employees perform the same tasks on the same shift and in the same work area, Eskola, LLC will plan to monitor a representative fraction of these employees. When using representative monitoring, Eskola will sample the employee(s) who are expected to have the highest exposure to Respirable Crystalline Silica.
- If initial monitoring indicates that employee exposures are below the Action Level, Eskola will probably discontinue monitoring for those employees whose exposures are represented by such monitoring.
- Where the most recent exposure monitoring indicates that employee exposures are at or above the Action Level but at or below the PEL, Eskola LLC will repeat such monitoring within six months of the most recent monitoring.
- Where the most recent exposure monitoring indicates that employee exposures are above the PEL, Eskola LLC will repeat such monitoring within three months of the most recent monitoring.
- Where the most recent (non-initial) exposure monitoring indicates that employee exposures are below the Action Level, Eskola LLC will repeat such monitoring within six months of the most recent monitoring until two consecutive measurements, taken seven or more days apart, are below the Action Level, at which time Eskola LLC will probably discontinue monitoring for those employees whose exposures are represented by such monitoring, except when a reassessment is required. Eskola LLC will reassess exposures whenever a change in the production, process, control equipment, personnel, or work practices may reasonably be expected to result in new or additional exposures at or above the Action Level, or when Eskola LLC has any reason to believe that new or additional exposures at or above the Action Level have occurred.

Eskola LLC will ensure that all Respirable Crystalline Silica samples taken to satisfy the monitoring requirements of this program and OSHA are collected by a qualified individual (i.e. a Certified Industrial Hygienist) and the samples are evaluated by a qualified laboratory (i.e. accredited to ANS/ISO/IEC Standard 17025:2005 with respect to Crystalline Silica analyses by a body that is compliant with ISO/IEC Standard 17011:2004 for implementation of quality assessment programs).

OSHA Compliance Programs: Silica Dust (Continue)

ALTERNATIVE EXPOSURE CONTROL METHODS (Continue)

Within five working days after completing an exposure assessment, Eskola LLC will individually notify each affected employee in writing of the results of that assessment or post the results in an appropriate location accessible to all affected employees.

Whenever an exposure assessment indicates that employee exposure is above the PEL, Eskola LLC will describe in the written notification the corrective action being taken to reduce employee exposure to or below the PEL.

Where air monitoring is performed, Eskola LLC will provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to Respirable Crystalline Silica. When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required for any workplace hazard, Eskola LLC will provide the observer with protective clothing and equipment at no cost and shall ensure that the observer uses such clothing and equipment.

Once air monitoring has been performed, Eskola LLC will determine its method of compliance based on the monitoring data and the hierarchy of controls. Eskola LLC will use engineering and work practice controls to reduce and maintain employee exposure to Respirable Crystalline Silica to or below the PEL, unless Eskola LLC can demonstrate that such controls are not feasible. Wherever such feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PEL, Eskola LLC will nonetheless use them to reduce employee exposure to the lowest feasible level and shall supplement them with the use of respiratory protection.

In addition to the requirements of this program, Eskola LLC will comply with other programs and OSHA standards (such as 29 CFR 1926.57 [Ventilation]), when applicable where abrasive blasting is conducted using Crystalline Silica-containing blasting agents, or where abrasive blasting is conducted on substrates that contain Crystalline Silica.

Control Methods

Eskola LLC will provide control methods that are either consistent with Table 1 or otherwise minimize worker exposures to Silica. These exposure control methods can include engineering controls, work practices, and respiratory protection. Listed below are control methods to be used when Table 1 is not followed:

1. Use wet methods on all involving chipping, cutting, drilling, grinding, blasting or similar activities on materials containing Crystalline Silica.
2. Use dust collector provided with air flow recommend by tool manufacturer or greater and have a filter with 99% or greater commonly called HEPA-filter and a filter-cleaning mechanism.

Respiratory Protection

Where respiratory protection is required by this program, Eskola LLC will provide each employee an appropriate respirator that complies with the requirements of the company's Respiratory Protection Program and the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Respiratory protection is required where specified by the OSHA Construction Standard Table 1, for tasks not listed in Table 1, or where the company has not fully and properly implemented the engineering controls, work practices, and respiratory protection described in Table 1. Situations requiring respiratory protection include:

- Where exposures exceed the PEL during periods necessary to install or implement feasible engineering and work practice controls;

OSHA Compliance Programs: Silica Dust (Continue)

- Where exposures exceed the PEL during tasks, such as certain maintenance and repair tasks, for which engineering, and work practice controls are not feasible; and
- During tasks for which an employer has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL.

Housekeeping

Eskola LLC does not allow dry sweeping or dry brushing where such activity could contribute to employee exposure to Respirable Crystalline Silica unless wet sweeping, HEPA-filtered vacuuming, or other methods that minimize the likelihood of exposure are not feasible.

Eskola LLC does not allow compressed air to be used to clean clothing or surfaces where such activity could contribute to employee exposure to Respirable Crystalline Silica unless:

- The compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air; or
- No alternative method is feasible.

Written Exposure Control Plan

When employee exposure on a construction project is expected to be at or above the Action Level, a Written Exposure Control Plan (ECP) will be established and implemented. This ECP will contain at least the following elements:

- A description of the tasks in the workplace that involve exposure to Respirable Crystalline Silica;
- A description of the engineering controls, work practices, and respiratory protection used to limit employee exposure to Respirable Crystalline Silica for each task;
- A description of the housekeeping measures used to limit employee exposure to Respirable Crystalline Silica; and
- A description of the procedures used to restrict access to work areas, when necessary, to minimize the number of employees exposed to Respirable Crystalline Silica and their level of exposure, including exposures generated by other employers or sole proprietors.

The written ECP will designate a Competent Person to make frequent and regular inspections of job sites, materials, and equipment to ensure the ECP is implemented.

The written ECP will be reviewed at least annually to evaluate the effectiveness of it and update it as necessary. Having said this, ECP's are project specific and most project durations do not exceed a year.

The written ECP will be readily available for examination and copying, upon request, to each employee covered by this program and/or ECP, their designated representatives, and OSHA.

OSHA Compliance Programs: Silica Dust (Continue)

Medical Surveillance

Medical surveillance will be made available for each employee who will be required to use a respirator for 30 or more days per year due to their Respirable Crystalline Silica exposure. Medical surveillance (i.e. medical examinations and procedures) will be performed by a PLHCP and provided at no cost to the employee at a reasonable time and place.

Eskola will make available an initial (baseline) medical examination within 30 days after initial assignment, unless the employee has received a medical examination that meets the requirements of the OSHA Respirable Crystalline Silica Construction Standard within the last three years. The examination shall consist of:

- A medical and work history, with emphasis on past, present, and anticipated exposure to Respirable Crystalline Silica, dust, and other agents affecting the respiratory system in addition to any history of respiratory system dysfunction, including signs and symptoms of respiratory disease (e.g., shortness of breath, cough, wheezing), history of tuberculosis, and smoking status and history;
- A physical examination with special emphasis on the respiratory system;
- A chest X-ray (a single postero-anterior radiographic projection or radiograph of the chest at full inspiration recorded on either film [no less than 14 x 17 inches and no more than 16 x 17 inches] or digital radiography systems) interpreted and classified according to the International Labour Office (ILO) International Classification of Radiographs of Pneumoconiosis by a NIOSH-certified B Reader;
- A pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume in one second (FEV1) and FEV1/FVC ratio, administered by a spirometry technician with a current certificate from a NIOSH-approved spirometry course;
- Testing for latent tuberculosis infection; and
- Any other tests deemed appropriate by the PLHCP.

Eskola LCC will make available medical examinations that include the aforementioned procedures (except testing for latent tuberculosis infection) at least every three years. If recommended by the PLHCP, periodic examinations can be more frequently than every three years.

Eskola LCC will ensure that the examining PLHCP has a copy of the OSHA Respirable Crystalline Silica Construction Standard, this program, and the following information:

- A description of the employee's former, current, and anticipated duties as they relate to the employee's occupational exposure to Respirable Crystalline Silica;
- The employee's former, current, and anticipated levels of occupational exposure to Respirable Crystalline Silica;
- A description of any personal protective equipment (PPE) used or to be used by the employee, including when and for how long the employee has used or will use that equipment; and
- Information from records of employment-related medical examinations previously provided to the employee and currently within the control of Eskola LLC.

OSHA Compliance Programs: Silica Dust (Continue)

Medical Surveillance

Eskola LLC will ensure that the PLHCP explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of each medical examination performed. The written report shall contain:

- A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to Respirable Crystalline Silica and any medical conditions that require further evaluation or treatment;
- Any recommended limitations on the employee's use of respirators;
- Any recommended limitations on the employee's exposure to Respirable Crystalline Silica;
- A statement that the employee should be examined by a Specialist if the chest X-ray is classified as 1/0 or higher by the B Reader, or if referral to a Specialist is otherwise deemed appropriate by the PLHCP.

Eskola LLC will also obtain a written medical opinion from the PLHCP within 30 days of the medical examination. The written opinion shall contain only the following in order to protect the employee's privacy:

- The date of the examination;
- A statement that the examination has met the requirements of the OSHA Respirable Crystalline Silica Construction Standard; and
- Any recommended limitations on the employee's use of respirators.

If the employee provides written authorization, the written opinion shall also contain either or both of the following:

- Any recommended limitations on the employee's exposure to Respirable Crystalline Silica; and/or
- A statement that the employee should be examined by a Specialist if the chest X-ray is classified as 1/0 or higher by the B Reader, or if referral to a Specialist is otherwise deemed appropriate by the PLHCP.

If the PLHCP's written medical opinion indicates that an employee should be examined by a Specialist, Eskola LLC will make available a medical examination by a Specialist within 30 days after receiving the PLHCP's written opinion. Eskola LLC will ensure that the examining Specialist is provided with all of the information that the employer is obligated to provide to the PLHCP.

Eskola LLC will ensure that the Specialist explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of the examination. The written report will contain:

- A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to Respirable Crystalline Silica and any medical conditions that require further evaluation or treatment;
- Any recommended limitations on the employee's use of respirators; and
- Any recommended limitations on the employee's exposure to respirable crystalline Silica.

In addition, Eskola LLC will obtain a written opinion from the Specialist within 30 days of the medical examination. The written opinion shall contain the following:

- The date of the examination;
- Any recommended limitations on the employee's use of respirators; and
- If the employee provides written authorization, the written opinion shall also contain any recommended limitations on the employee's exposure to Respirable Crystalline Silica.

OSHA Compliance Programs: Silica Dust (Continue)

Hazard Communication

Eskola LLC will include Respirable Crystalline Silica in the company's Hazard Communication Program established to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Eskola LLC will ensure that each employee has access to labels on containers of Crystalline Silica and those containers respective Safety Data Sheets (SDS's).

All employees will be trained in accordance with the provisions of the OSHA Hazard Communication Standard and the Training Section of this program. This training will cover concerns relating to cancer, lung effects, immune system effects, and kidney effects.

Eskola LLC will ensure that each employee with the potential to be exposed at or above the Action Level for Respirable Crystalline Silica can demonstrate knowledge and understanding of at least the following:

- The health hazards associated with exposure to Respirable Crystalline Silica;
- Specific tasks in the workplace that could result in exposure to Respirable Crystalline Silica;
- Specific measures Eskola LLC has implemented to protect employees from exposure to Respirable Crystalline Silica, including engineering controls, work practices, and respirators to be used;
- The contents of the OSHA Respirable Crystalline Silica Construction Standard;
- The identity of the Competent Person designated by Eskola LLC; and
- The purpose and a description of the company's Medical Surveillance Program.

Eskola LLC will make a copy of the OSHA Respirable Crystalline Silica Construction Standard readily available without cost to any employee who requests it.

Recordkeeping

Eskola LLC will make and maintain an accurate record of all exposure measurements taken to assess employee exposure to Respirable Crystalline Silica. This record will include at least the following information:

- The date of measurement for each sample taken;
- The task monitored;
- Sampling and analytical methods used;
- Number, duration, and results of samples taken;
- Identity of the laboratory that performed the analysis;
- Type of personal protective equipment (PPE), such as respirators, worn by the employees monitored; and
- Name, social security number, and job classification of all employees represented by the monitoring, indicating which employees were actually monitored.

Eskola will ensure that exposure records are maintained and made available in accordance with 29 CFR 1910.1020. Exposure records will be kept for at least 30 years.

OSHA Compliance Programs: Silica Dust (Continue)

Recordkeeping (Continue)

The employer shall make and maintain an accurate record of all objective data relied upon to comply with the requirements of the OSHA Respirable Crystalline Silica Construction Standard. This record shall include at least the following information:

- The Crystalline Silica-containing material in question;
- The source of the objective data;
- The testing protocol and results of testing;
- A description of the process, task, or activity on which the objective data were based; and
- Other data relevant to the process, task, activity, material, or exposures on which the objective data were based.

Eskola LLC will ensure that objective data are maintained and made available in accordance with 29 CFR 1910.1020. Objective data records will be kept for at least 30 years.

Eskola LLC will make and maintain an accurate record for each employee enrolled in the Medical Surveillance portion of this program. The record shall include the following information about the employee:

- Name and social security number;
- A copy of the PLHCPs' and/or Specialists' written medical opinions; and
- A copy of the information provided to the PLHCPs and Specialists.

Eskola LLC will ensure that medical records are maintained and made available in accordance with 29 CFR 1910.1020. Medical records will be kept under lock and key for at least the duration of employment plus 30 years. It is necessary to keep these records for extended periods because Silica-related diseases such as cancer often cannot be detected until several decades after exposure.

However, if an employee works for an employer for less than one year, the employer does not have to keep the medical records after employment ends, as long as the employer gives those records to the employee.

PROGRAM EVALUATION

This program will be reviewed and evaluated on an annual basis by the Safety Manager unless changes to operations, the OSHA Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153), or another applicable OSHA Standard require an immediate re-validation of this program.

APPLICABLE FORMS

The following lists applicable forms relating to this program.

OSHA Compliance Programs: Silica Dust Appendix A: Exposure Control Plan

Site-specific silica exposure control plan

Location: _____ Date: _____

Work description:

Primary silica control options (check those options used and explain use if needed)

- Substitution controls (using procedures or products that do not create silica; must review MSDSs)

Other means of demo:

Different products:

Other substitutions:

- Engineering controls (when using ventilation, draw air out and don't expose others to exhaust dusts)

Vacuuming:

Wetting:

Ventilation:

Isolation:

Other means:

- Administration controls (reducing exposure by work schedules, timing, or planning options)

Control points:

Work schedule:

Other means:

- Hygiene and decontamination options (reducing exposures after work has stopped or during breaks)

Secondary silica control options (check those options used and explain use if needed)

- Personal protective equipment

Half-mask respirators:

_____ Cartridge type: _____ Fit tests confirmed: _____

Full-face respirators:

_____ Cartridge type: _____ Fit tests confirmed: _____

Supplied air units:

Coveralls required:

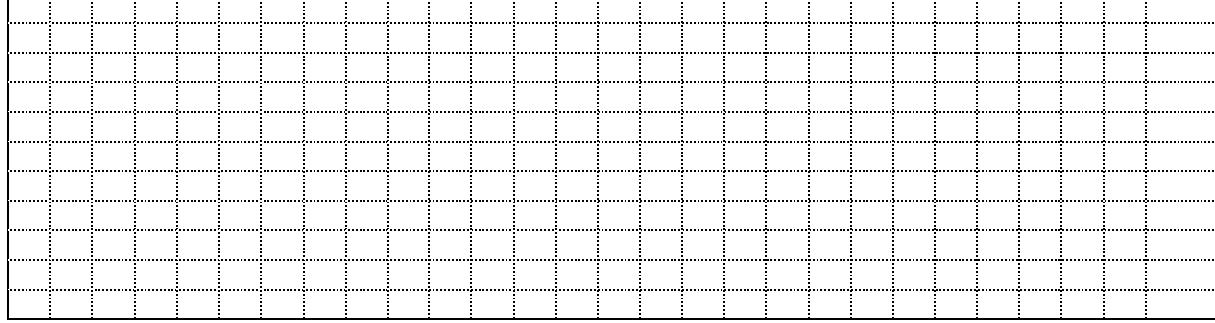
- Hygiene and decontamination options (reducing exposures after work has stopped or during breaks)

Water or washing facilities on site:

Vacuuming clothing/self:

Safe work procedures and other details:

Ventilation plan (sketch)



Area or location in building of ventilation plan (e.g., floor #, wing)

Date plan was reviewed by workers and posted for workers to see

Types of neg. air fans & no.'s *

* Indicate on plan by number the location of the negative air fans

Ventilation safety checklist

- | | |
|--|--|
| <input type="checkbox"/> Makeup air free of possible contaminants | <input type="checkbox"/> Workers not placed between contaminants created and exhaust inlet ports |
| <input type="checkbox"/> Exhaust fan operation has failure warning | <input type="checkbox"/> Discharge air not affecting others |
| <input type="checkbox"/> Dilution fans not stirring up dust | <input type="checkbox"/> All workers equipped with approved respirators |
| <input type="checkbox"/> Wetting of materials used to keep dust down | |

Note: Attach additional sheets if needed or other documents if required due to hazards or work conditions.

Print supervisor's name

Supervisor's signature

Elevated Platform/ Aerial Lift Program

PURPOSE:

To establish minimum requirements and responsibilities for the safe use of aerial work platforms.

SCOPE:

This section applies to all Eskola employees and operations including any vehicle-mounted device that telescopes, articulates or is used to position personnel in an elevated work position. This includes bucket trucks and platforms fitted to fork trucks.

DEFINITIONS:

Aerial Work Platforms-Aerial lifts include vehicle-mounted aerial devices used to lift personnel to areas above ground level. This includes: extensible boom platforms, aerial ladders, articulating boom lifts, vertical towers or a combination of these.

PROCEDURES:

1. ***Only trained qualified personnel will operate an aerial work platform.***
2. A pre-operational check meeting the manufacturer's requirements will be performed. The check includes, as a minimum, the following:
 - a. Operating controls and associated mechanisms for:
 - Conditions interfering with proper operation.
 - Excessive component wear and contamination of materials.
 - b. Visual and audible safety devices for malfunction.
 - c. Hydraulic or pneumatic systems for observable deterioration or excessive leakage.
 - d. Fiberglass and other insulating components for visible damage or contamination.
 - e. Electrical apparatus for malfunction, signs of excessive deterioration, dirt, and moisture accumulation.
3. Do not operate a machine that is not functioning properly.
4. Comply with the rated capacity of the equipment.
5. An aerial work platform is designed to take employees and their tools to a high reach or elevation work area. Materials and tools can be carried within the confines of the bucket or basket to the extent that they do not impede the mobility of the operator and do not result in exceeding the weight limitation of the device.
6. Safe operation of aerial work platforms will require the presence of two or more persons. A ground person will be required during the usage of any lift or platform when the following conditions exist:
 - Welding or burning is performed from the work platform.
 - Work around vehicular traffic or crane traffic.
 - Work is being performed adjacent to or over railroad tracks. (Note: The ground person must be qualified with aerial work platform and its operation. In situations where more than one-man lift is being used in the immediate area, one ground person may be used to control traffic for all man lift activities in the area.)
 - When the vehicle does not have a working back-up alarm.
7. All articulating aerial work platforms will be equipped with flashing lights. These lights will be used as follows:
 - When the vehicle is in motion and the aerial platform is manned.

- When the vehicle is being used in areas of heavy congested vehicle traffic.
- When the vehicle is being used adjacent to or over railroad tracks.

Elevated Platform/ Aerial Lift Program (Continue)

PROCEDURES: (Continue)

8. Aerial work platforms, unless specifically designed for and certified for such work, will not be used to work on energized conductors.
9. When operating aerial work platforms proximate to, under, over, or near (within 10 feet) electrical conductors, which are not in cable ladders, raceways, or conduit, clearance will be obtained from the safety department. The energized line will have to be blanketed by the power company or power removed.
10. Use flagging and barricades to isolate the area below an overhead work area.
11. All occupants of an aerial work platform will wear personal fall protection equipment. An approved full body harness and adjustable lanyard is required and is to be tied to the intended tie point in the basket or the boom of the lift. Workers are to remain standing on the floor of the man basket while working. No standing or climbing on handrails.
12. Personal fall protection equipment will not be secured to adjacent structure while the person remains in the aerial work platform.
13. Aerial work platforms will be equipped with a guardrail system and toe boards that meet the specification put forth in OSHA 1910.28
14. Use extreme caution when entering or leaving the aerial platform at elevated positions Personal fall protection equipment will be used in all situations. Points of anchorage will be elevated and tested prior to leaving the aerial platform.
15. Be aware of operating clearances required before initiating any machine functions. Always look in the direction that the bucket is moving and at any object in the path of the boom.
16. Do not mechanically block the foot switch.
17. Observe extreme caution to prevent obstacles from striking or interfering with controls.
18. Maintain a clear visual site line with the ground observer at all times.
19. Before operating the equipment, review the written operating procedures including all pertinent safety sections.
20. No modifications will be made to the aerial lift without written approval from the manufacturer of the lift.

TRAINING REQUIREMENTS

Only Authorized qualified and/or competent operators will be permitted to operate aerial work platforms. Training will be provided by the Company Safety Director or the manufacturer of the aerial lift. This will be training section will include a formal training, hands-on training and an evolution to ensure that the employee is competent.

Power Industrial Trucks Program

PURPOSE

This program has been developed to reduce the risk of physical injury or property damage in areas where powered industrial trucks are in operation. It also brings Eskola LLC into compliance with federal, state, and local law (OSHA Standard 29CFR 1910.178).

SCOPE

This program applies to the operation of all powered industrial trucks, forklifts, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines by Eskola LLC employees and contractors, engaged in any projects.

SUPERVISORS RESPONSIBILITIES:

1. Follow the Power Industrial Trucks Program.
2. Coordinate with the Safety Manager to properly trained employees.
3. Ensure that only trained and qualified individuals use powered industrial trucks.
4. Verify employee compliance with the principles and practices outlined in the Forklift Safety Program.
5. Provide specific operational training for each powered industrial truck in their department.
6. Observe the operation of powered industrial trucks on the project, and correct unsafe practices.
7. Inform Eskola's Safety Manager

OPERATORS RESPONSIBILITIES:

1. Follow the Power Industrial Trucks Program.
2. Complete the Daily Pre-Use Inspection Checklist before operating any powered industrial truck.
3. At least annually review the procedures outlined in Section 6.0 of this document.
4. report unsafe practices and any incident or near misses to supervisor.

SAFETY MANAGER RESPONSIBILITIES:

1. Annually review and update the Forklift Safety Program as necessary.
2. Provide orientation and initial training as requested by Eskola LLC Supervisor and/or contractors.
3. Provide the general safety training requirements for program.
4. Maintain a record of all individual training
5. Monitor the effectiveness of program by receipt of copies of inspection checklists.
6. Evaluate designated areas for forklift use.
7. Define appropriate eyewash facilities for battery changing/charging areas.

FORKLIFT PROCEDURES

Only drivers authorized by Eskola LLC, licensed and trained in the safe operation of industrial trucks, pallet jacks or industrial tow tractors will be permitted to operate such vehicles. Methods will be devised to train operators in safe operation of powered industrial trucks.

1. Drivers will check the vehicle at least once per shift, and if it is found to be unsafe, the matter will be reported immediately to a supervisor, foreman or mechanic, and the vehicle will not be put in service again until it has been made safe. Attention will be given to the proper functioning of tires, horn, lights, battery, controller, brakes, steering mechanism, and the lift system of forklifts (forks, chains, cable, and limit switches). Electric pallet jacks must include the proper functioning of the horizontal and vertical emergency stop systems.
2. Vehicles will not exceed authorized or safe speed, always maintaining a safe distance from other vehicles, keeping the truck under positive control at all times and all established traffic regulations will be observed.
3. Stunt driving, and horseplay are prohibited.
4. A loaded vehicle will not be moved until the load is safe and secure.

Power Industrial Trucks Program (Continue)

FORKLIFT PROCEDURES (Continue)

5. For trucks traveling in the same direction, a safe distance may be considered to be approximately 3 truck lengths or preferably a time lapse-3 seconds passing the same point. A turn will never be made at such a speed that will cause the fork lift or pallet jack to overturn, due to the centrifugal force of gravity. Fork lift and pallet jacks have a very high center of gravity and will turn over when a turn is made at excessive speed.
6. **NO RIDERS WILL BE PERMITTED ON VEHICLES.** A person may not ride or be elevated on the forks of a lift truck or pallet jack without the use of a safety platform. **A safety platform is defined as:**
 - Having 42" high guard rails around all sides.
 - Having a midrail, midway between the guard rails and platform.
 - Having 4" high toeboards around the platform.
 - Having chain, or other devices, securing the platform to the mast of the fork lift.
 - Having a guard 7" high to protect the person from the crushing action of the mast and backrest.
7. When leaving a vehicle unattended, the power will be shut off, brakes set, the mast brought to the vertical position, and the load-engaging means left in the down position. When left on an incline, the wheels will be blocked.
Note: A powered industrial truck is unattended when the operator is 25 feet or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his/her view.
8. When the operator of an industrial truck is dismounted and within 25 feet of the truck still in his view, the load engaging means will be fully lowered, controls neutralized, and the brakes set to prevent movement.
9. Trucks will not be driven up to anyone standing in front of a bench or other fixed object of such size that the person could be caught between the truck and object.
10. Operators will look in the direction of travel and will not move a vehicle until certain that all persons are in the clear. Pedestrians have the right of way at all times.
11. Vehicles will not be run onto any elevator unless the driver is specifically authorized to do so. Before entering an elevator, the driver will make sure that the capacity of the elevator will not be exceeded. Once on an elevator, the power will be shut off and the brakes set.
12. Motorized hand trucks will enter elevators or other confined areas with the load end forward.
13. Vehicles will not be driven in and out of highway trucks and trailers at unloading docks until such trucks are securely blocked and brakes set.
14. Vehicles will not be operated on floors, sidewalk doors, or platforms that will not safely support the loaded vehicle.
15. Employees will never be allowed to ride on the forks or on the sides or backs of lift trucks and pallet jacks.
16. The forks will always be carried as low as possible, consistent with safe operations, usually 4 inches off the floor.
18. Extreme care will be taken when tilting loads. Loads may fall or forklifts can easily be turned over while tilting moderate loads.
19. Fork lifts and pallet jacks will not be driven in and out of highway trucks and/or trailers at unloading/loading docks until such trucks are securely blocked and brakes set. Chock all trucks and trailers.

- 20.** Employees will not place any part of their bodies outside the running lines of an industrial truck or between mast uprights or other parts of the truck where shear or crushing hazards exist.

Power Industrial Trucks Program (Continue)

FORKLIFT PROCEDURES (Continue)

- 21.** Employees will not be allowed to stand, pass, or work under the elevated portion of any industrial truck, loaded or empty, unless it is effectively blocked to prevent it from falling.
- 22.** Railroad tracks will be crossed diagonally, wherever possible. Parking closer than 9 feet from the centerline of railroad tracks is prohibited.
- 23.** The width of one tire on the powered industrial truck will be the minimum distance maintained from the edge by the truck while it is on any elevated dock, platform, freight car or truck.
- 24.** When powered industrial trucks are used to open and close doors, the following provisions will be complied with:
- A device specifically designed for opening or closing doors will be attached to the truck.
 - The force applied by the device to the door will be applied parallel to the direction of travel of the door.
 - The entire door opening operation will be in full view of the operator.
 - The truck operator and other employees will be clear of the area when the door might fall while being opened.
- 25.** Prior to driving onto trucks, trailers and railroad cars, their flooring will be checked for breaks and other structural weaknesses.
- 26.** Other trucks traveling in the same direction will not be passed at intersections, blind spots, or dangerous locations.
- 27.** The driver will slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver will be required to travel in reverse, with the load trailing.
- 28.** The driver will slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver will be required to travel with the load trailing.
- 29.** Grades will be ascended or descended slowly.
- When ascending or descending grades in excess of 10 percent, loaded trucks will be driven with the load upgrade (drive-up and back down).
 - On all grades, the load and load-engaging means will be tilted back if applicable and raised only as far as necessary to clear the road surface.
 - Motorized hand and hand/rider trucks will be operated on all grades with the load-engaging means downgrade.
 - Electric pallet jacks will be operated on all grades or ramps with the load down grade, preventing a runaway jack from crushing the operator.
- 30.** Trucks will not be loaded in excess of their rated capacity. The rated capacity of the truck must be clearly visible by the operator. On forklifts, it is recommended the maximum capacity be stenciled on both sides of the mast and on the inside, directly opposite of the operator as he/she sits on the seat.
- 31.** Pallet jacks will enter elevators or other confine areas with the load end forward. Operators of hand jacks and electric jacks not designed for riding, will not ride on the jack. This includes using the jack as a scooter.
- 32.** No truck will be operated with a leak in the fuel, oil and hydraulic systems.
- 33.** Tilting forward with the load engaging means elevated will be prohibited except when picking up a load. Elevated loads will not be tilted forward except when the load is being deposited onto a storage rack or equivalent. When stacking or tiering, backward tilt will be limited to that necessary to stabilize

the load. Even though the load is not heavy, by tilting forward the fork lift can be overturned, due to the change in the trucks center of gravity.

Power Industrial Trucks Program (Continue)

FORKLIFT PROCEDURES (Continue)

34. The load engaging device will be placed in such a manner that the load will be securely held or supported.
35. Special precautions will be taken in the securing and handling of loads by trucks equipped with attachments, and during the operation of these trucks after the loads have been removed. Any attachment changes the center of gravity and the maximum capacity rating of the lift.
36. The engine must remain running and the operator at the controls, when a person is elevated in a safe platform. In case of hydraulic failure, the running pumps will afford some degree of protection in descending the person safely to floor level.
37. Forklift and electric pallet jack operators may not smoke while operating this equipment. Sparks, open flames or smoking are not allowed in an area within 50 feet of any battery charging or refueling operation. Never connect or disconnect a charger to a battery, unless the charger is in the off position.

TRAINING PROGRAM REQUIREMENTS

Employees whom are authorized to operate powered industrial trucks must receive training prior to engaging in their duties, and an Evaluation at least every three (3) years thereafter 1910.178(l)(3). Training Program will consist of the following:

- Formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material)
- Practical training (demonstrations performed by the trainer and practical exercises performed by the trainee)
- Evaluation of the operator's performance in the workplace.

RETRAINING/REVALUATION

Refresher training only needs to be conducted when operators are found to be operating unsafely, have been in an accident or near miss, receive a poor evaluation, or when there are changes in the workplace or type of truck. OSHA does, however, require an **evaluation** of each powered industrial truck operator's performance at least once every three years. **1910.178(l)(3)**

TRAINING RECORDS

Safety Manager will maintain a record of all individual training, including:

- Subject of training.
- Date of training.
- Name of individual trained.
- Name of Qualified Trainer providing the training.

Training records must be maintained by Eskola's Safety Manager for a minimum of 3 years.

PROGRAM EVALUATION

The forklift program shall be evaluated on an annual basis utilizing the protocols set forth by Occupational Health and Safety. Occupational Health and Safety will define the scope of the evaluation. The final report will be developed by the department representative and OH S utilizing the information received during the evaluation. The deficiencies determined in the report will be documented and corrective action plans will be developed.

OSHA Compliance Programs: Lockout/Tagout

PURPOSE

To prevent the activation of equipment when it is installed, repaired, or being adjusted, and to control hazardous energy sources by means of lockout/tagout procedures.

SCOPE

Valves, switches and other mechanical or electrical equipment must be properly locked and tagged out of service to prevent the system from operating while installation, maintenance, or repair work is in progress.

DEFINITIONS

Affected Employee- An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout/tagout, or whose job requires him/her to work in an area in which such is servicing or maintenance is being performed. The affected employee is not trained or authorized to lockout equipment.

Authorized Employee- 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 under this section.

Energy Isolating Device- A mechanical device that physically prevents the transmission or release of energy. Devices include: a manually operated electrical circuit breaker, a disconnect switch, a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently of a line valve, a block, and any similar device used to block or isolate energy.

Energy Source- Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Lockout- The placement of a locking device on an energy isolating device, in accordance with an established procedure to ensure that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout Devise- A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

Servicing and/or Maintenance- Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. The activities include lubrication, cleaning and unjamming of machines or equipment and making adjustments or tool changes.

Tagout- The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout Devices- A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Group Lockout-When there are several contracting companies using the lockout tagout a written procedure must be in place to ensure that each exposed employee controls the hazardous energy by means of a lock & tag.

OSHA Compliance Programs: Lockout/Tagout (Continue)

RESPONSIBILITIES:

- a. The supervisor will survey field operations to determine if workers are required to perform tasks that may expose them to hazards associated with energized equipment.
- b. The supervisor will establish an energy control and training program that includes written procedures for the control of potentially hazardous energy when employees are engaged in maintenance and/or servicing activities.
- c. The supervisor must ensure that before any employee performs any servicing or maintenance on a machine or equipment, the machine or equipment is isolated and rendered inoperative.
- d. The supervisor (or supervisors) will ensure that employee training has been accomplished. Written verification will show employee names and dates of training.

PROCEDURES

The program procedures must clearly outline the scope, purpose, authorization, rules, and techniques to be used for the control of hazardous energy and the methods of compliance including:

- A specific statement of the intended use of the procedures.
- Steps for shutting down, isolating, blocking, and securing machines or equipment to control hazardous energy.
- Steps for the placement, removal and transfer of lockout and tagout devices and the responsibility for them.
- Requirements for testing a machine or equipment to determine and verify the effectiveness of lockout/tagout devices and other energy control measures.

The energy control program must include procedures for conducting periodic inspections of the program (at least annually), to ensure that it meets the standard's requirements.

Locks and tags supplied by the supervisors are not to be used for any other purpose than program compliance.

All equipment will be locked out and tagged out to protect against accidental or inadvertent operations. Do not attempt to operate any switch, valve, or other energy isolating device when it is locked or tagged out.

Failure to follow all appropriate lockout procedures will result in disciplinary action.

Lockout/Tagout Equipment Specifications

1. Supervisors will provide their employees with the required lockout/tagout equipment.
2. Lockout and tagout devices will not be used for any other purpose.
3. Lockout and tagout devices will be singularly identified.
4. Lockout and tagout devices will be capable of withstanding the environment to which they are exposed for the maximum amount of time that exposure is expected.
5. Lockout and tagout devices will be standardized within the facility in at least one of the following criteria: color, shape, or size. In the case of tagout devices, print and format will be standardized.
6. Lockout devices will be substantial enough to prevent removal without the use of excessive force or unusual techniques. Tagout devices, including their means of attachment, will be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment means will be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece, all environment-tolerant nylon cable tie.

7. Lockout devices and tagout devices will indicate the identity of the employee applying the device(s).

OSHA Compliance Programs: Lockout/Tagout (Continue)

LOCKOUT/TAGOUT PROCEDURES/ APPLICATION

STEP 1: Preparation

Lockout and tagout procedures should only be carried out by “authorized employees”. Before implementing the lockout/tagout procedure you must fully understand:

1. The type and magnitude of the energy to be controlled.
2. The methods of controlling the hazardous energy.
3. The means of controlling the hazardous energy.

STEP 2: Notification

Before the application of lockout or tagout devices, notify all affected personnel. Tell employees that the energy control procedure is going to be used and the reasons why.

STEP 3: Shutdown

Shut down equipment in an orderly manner. This may simply mean to turn off the equipment. When the equipment is part of a production or manufacturing process, all parts of the operation must be considered. An orderly shutdown will avoid increased hazards when the equipment is de-energized.

STEP 4: Isolation

Locate all of the energy isolating devices. Operate the energy isolating devices so that the equipment is completely isolated from the energy source. When complete, all devices will be in the “safe” or “off” position.

STEP 5: Applications of Locks and Tags

• Single-point lockout/tagout

Attach locks and/or tags to the energy isolating device so the device is held in the “safe” or “off” position. Separate locks or tags must be used for each authorized employee. Jobs requiring several employees to lockout energy sources will use multi-lock adapters or follow the multi-lockout energy sources will use multi-lock adapters or follow the multi-point lockout procedure. Tags must be securely attached to the energy isolating device so that they cannot be accidentally detached during use. If you are not able to attach the tag directly to the energy isolating device, put it as close as safely possible. Place the tag in a position that will be immediately obvious to anyone attempting to operate the device.

Multi-point lockout/tagout

Jobs requiring multi-point lockout/tagout, where several locations or energy sources must be locked/tagged out, will require the use of a lockbox. A lock set will be used to lock out each multi-point location. The key for the lock set is then placed in their individual lock on the box. A supervisor will ensure that all affected employees have a lock and tag on these boxes.

STEP 6: Control Stored and Residual Energy

Relieve, disconnect, and restrain all stored or residual energy. Remember, Hazardous energy can be found in springs, elevated machine members, capacitors, rotating flywheels, hydraulic systems, air, gas, steam, and water pressure. This energy must be dissipated or restrained. Some common methods to restrain energy are blocking and bleeding down systems.

STEP 7: Verification

Check to be sure that all personnel are in a safe location. Verify that the equipment is properly isolated and all hazardous energy is safely controlled. Operated push buttons and other controls to verify isolation. Check circuits with electrical meters. Inspect springs, pressure gauges, the location of moving parts, and other

sources of stored energy. Return operating controls to the “neutral” or “off” position after the test. Once you are absolutely sure the energy is isolated and safely controlled, proceed with the maintenance and service activities.

OSHA Compliance Programs: Lockout/Tagout (Continue)

WARNING:

Some machinery and equipment can re-accumulate stored energy even after the system has been de-energized. If there is a possibility of stored energy building to a hazardous level, continue verification until maintenance or service is complete or until possibility of accumulation no longer exists.

e. Extended Work Requirements

If the job requiring lockout will last beyond one shift, special provisions must be made to ensure the integrity of the lockout. The employees being relieved must physically show the locations of their lockout/tagout equipment to the person relieving them. Each employee must apply their lock following single or multi-point procedures.

f. Release of Energy Controls

STEP 1: Inspection

Inspect the work area. Be sure all non-essential items such as tools, parts, and cleaning supplies have been removed. Check to be sure that all machines and equipment components are ready for operation. Be certain all affected employees have been safely positioned or removed.

STEP 2: Remove Locks and Tags

Remove locks and tags. The lockout or tagout devices should only be removed by the authorized employee who applied them.

If the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed under the direction of the supervisor, provided that specific procedures and training for such removal have been developed, documented, and incorporated into the supervisor's energy control program. The supervisor must demonstrate that the specific procedure provides equivalent safety to the removal of the device by the authorized employee who applied it.

TRAINING REQUIREMENTS

General Training:

Required for all employees who are authorized to apply locks when needed or are affected by an equipment lockout. Authorized employees must be trained to recognize:

1. Applicable hazardous energy sources.
2. The type and magnitude of the energy present in the workplace.
3. The methods and means necessary for energy isolation and control.

All other employees, whose work operations may be in an area where energy control procedures may be used, must be instructed about the energy control procedure. Training should emphasize that any attempts to restart or re-energize machines or equipment that are locked or tagged out is prohibited.

Tags:

When tagout systems are used, employees also must be trained in the limitation of tags. Training must convey the following information:

1. Essentially, tags are warnings affixed to energy isolating devices, and do not physically restrain energy controls as do lock.
2. Only an authorized person may remove a tag that is attached to an energy isolated means. Tags must never be bypassed, ignored, or otherwise defeated.
3. In order to be effective, tags must be legible and understandable by all authorized employees, affect employees, and all other employees whose work operations may be in the area.
4. Tags must be made of materials that will withstand the environmental conditions encountered in the workplace.
5. Tags may be evoking a false sense of security, and their meaning needs to be understood as part of the overall energy control program.

6. Tags must be securely attached to an energy isolating device so that they cannot be inadvertently or accidentally detached during use.
7. The safety director will document that employee training is accomplished, along with written verification to indicate employee names and dates training.

OSHA Compliance Programs: Lockout/Tagout (Continue)

RETRAINING

Retraining must be provided for all authorized and affected employees 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.

If deviations or inadequacies in the employees' knowledge or use of the energy control procedures are found during an inspection, employees must be retrained. All retraining will be documented.

Retraining must reestablish employee proficiency and introduce new or revised control methods or procedures.

PROGRAM REVIEW

Eskola Safety Representative's lockout/tagout procedures are reviewed annually to ensure that the procedures meet the standard's equipment's.

Eskola LLC supervisor will ensure that all appropriate lockout/tagout procedures are followed. Failure to follow appropriate lockout procedures may result in employee dismissal.

OSHA Compliance Programs: Electrical Safety (Continue)

Purpose and Scope

Eskola LLC is committed to providing a safe and healthy work environment and to protecting employees from injury or death caused by uncontrolled electrical hazards in the workplace. The purpose of Eskola LLC's Electrical Safety Program is to establish work policies, practices and procedures to train employees in basic electrical hazard recognition and safe work practices. This program applies to qualified and non-qualified employees who are exposed to electricity as part of their job.

Program Responsibilities

Management. Along with providing financial and leadership support, management of Eskola LLC will assist supervisors, employees and Safety Manager with complying with this policy.

Safety Manager. The Safety Manager is responsible for:

- Identifying work tasks that need to be performed by a qualified employee
- Conducting electrical safety inspections
- Correcting electrical safety hazards as soon as possible
- Ensuring all new electrical equipment and components comply with this program
- Reviewing this program annually and revising if necessary
- Maintaining a list of all authorized qualified electrical contractor employees. (**Appendix A**)
- Conducting training for non-qualified employees

Supervisors/Subcontractors. Supervisors/Subcontractors are responsible for:

- Following the safe work practices outlined in this program
- Ensuring employees are provided with and use the appropriate PPE
- Ensuring employees comply with all aspects of the Electrical Safety Program

Eskola LLC Employees. All Eskola LLC Employees are non-qualified employees, meaning that they are not authorized to perform work on any electrical equipment or component. If work on electrical equipment or component is required, Eskola LLC will hire an outside Contractor Qualified Authorized Electricians. All Eskola LLC non-qualified employees are responsible for:

- Following the safe work practices outlined in this program
- Reporting electrical safety hazards to their Supervisor and Eskola LLC Safety Manager.
- Visually inspecting electrical equipment, tools and cords before each use
- Never use a damaged electrical equipment or components such as cords.
- Always use a GFCI when working an electrical equipment or components.
- Completing all required training

Authorized Qualified Electrical Contractor Employees. An employee will only work on electrical equipment if he/she is an Authorized Qualified Employees, meaning he/she has been trained and authorized to perform work on electrical equipment and components. Authorized Qualified Electrical Contractor Employee is responsible for:

- Following the safe work practices outlined in this program
- Wearing the appropriate PPE when working with or around electrical equipment
- Reporting electrical safety hazards to their Contractor Supervisor and Eskola LLC Safety Manager.

- Visually inspecting electrical equipment, tools and cords before each use
- Completing all required training

OSHA Compliance Programs: Electrical Safety (Continue)

Work Practices

All electrical equipment will have the manufacturer's name, trademark or other descriptive marking which identifies the organization responsible for the product. The equipment will also have its operating voltage, current, wattage or other rating clearly marked on it. **No work will be performed on electrical equipment or components by Eskola LLC's employees.** If needed, Eskola LLC will hire an authorized qualified electrical contractor to perform the required work on the electrical equipment or components. The authorized qualified electrical contractor will use lockout/tagout procedures on all electrical equipment while completing the required work. Lockout/tagout procedures are found in Eskola LLC's [Lockout/Tagout Program](#).

Extension Cords and Power Strips

Employees must be aware of the hazards associated with the misuse of extension cords and power strips. All power strips must be UL listed and used according to the manufacturer's guidelines.

Choosing an Appropriate Extension Cord. Eskola LLC has a variety of extension cords available for employee use. Employees will select an extension cord that can handle the electricity requirement for any connected tools or equipment. All employees will adhere to the following guidelines when choosing an appropriate extension cord.

- **Lights and fans (1-13 amperage rating).** Employees may use a 25-100-foot-long extension cord with 16 gauge wire, or a 150 foot cord with 14 gauge wire.
- **Small electrical hand-held tools, such as drills and sanders (14-15 amperage rating).** May use a 25-100-foot-long extension cord with 14 gauge wire, or a 150 foot cord with 12-10 gauge wire.
- **Large electrical tools such as circular saws, table saw and space heaters (16-20 amperage rating).** May use a 25-100-foot-long extension cord with 12-10-gauge wire. Do not use an extension cord longer than 100 feet with large electrical tools.

*** Any extension cord used for construction or outdoor work will be equipped with or connected to a ground fault circuit interrupter (GFCI). NO EXCEPTIONS!!!**

If an employee is unsure which size of extension cord he/she should use, contact a Supervisor or Eskola LLC Safety Manager.

Safe Work Practices for Extension Cords and Power Strips. The following safe work practices will be followed at all times by all employees when using an extension cord or power strip.

- No employee will plug in or unplug a power strip or extension cord with wet hands.
- Power strips will only be used in office settings.
- Grounding prongs will never be removed from the end of any extension cord or power strip. No strip or cord with a missing grounding prong shall be plugged into outlets.

- All extension cords and power strips will be inspected before use. If any defects are found, the cord or strip will be removed from service.
- All power strips and extension cords will be tested using an ohm meter every 3 months.

OSHA Compliance Programs: Electrical Safety (Continue)

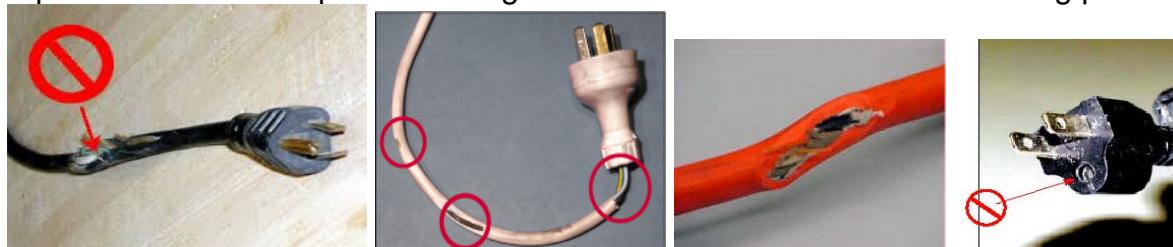
Extension Cords and Power Strips (Continue)

- If and when extension cords or power strips are used, they will not be:
 - Run through holes in walls, ceilings or floors
 - Run through doorways or windows without appropriate protection
 - Used in areas where vehicles, forklifts or other equipment could drive over the cord
 - Fastened with staples or hung in a way that could damage the insulation
 - Used for more than 30 days

If it is necessary to run an extension cord through a doorway (for example, work completed outdoors with no outlet), the cord will be protected using high contrast tape or coverings and will not be left out overnight. Employees must get approval from Eskola LLC Safety Manager before an extension cord can be used in this manner.

Repairing and Replacing Electrical Cords

Repair Electrical Cords are prohibited. If a cord is damaged, it shall be immediately replaced. Some examples of damages on cords are shown on the following pictures:



Circuit Overload

To reduce the possibility of overloaded circuits, Eskola LLC employees and subcontractors will only plug in one device per outlet. Employees will not use splitters, multi-plug adapters, etc. without direct permission from the Safety Manager. If you have a concern that a circuit may be overloaded, you are to contact your supervisor or the Safety Manager as soon as possible.

Tools

The following requirements shall be adhered to at all times:

- All electrical tools will be stored in a clean, dry place when not in use.
- Employees will not carry electrical tools by the cord or yank cords from the wall.
- If a tool is unintentionally de-energized due to a circuit breaker or GFCI, it must be removed from service until the cause of de-energization is discovered.
- All electrical tools will be tested using an ohm meter every 3 months.
- All tools will have grounding prongs. Any tool without a grounding prong will be removed from service.

- All electrical tools will be inspected before use. If any defects are found, the tool will be removed from service until it can be repaired or replaced.
- Fiberglass ladders will be used when working around or on electrical equipment or wires.

OSHA Compliance Programs: Electrical Safety (Continue)

Guarding

All electrical systems must be guarded to prevent contact with live conductors. The following requirements will be adhered to at all times:

- All electrical distribution panels, breakers, disconnects, switches and junction boxes will be completely enclosed.
- Live parts to electrical equipment operating at 50 volts or more must be guarded to prevent contact and prevent damage.
- All electrical receptacles and cover plates will be kept intact and in good condition.
- All electrical panels will be easily accessible at all times and a minimum of three feet of clearance shall be maintained on all sides.

High Voltage Electrical Rooms and Closets

The following requirements for electrical rooms and closets shall be adhered to at all times:

- High voltage rooms and closets must be locked at all times.
- Only qualified employees are allowed into high voltage rooms and closets.
- No Eskola LLC employee will open or remove covers or access panels of high voltage electrical distribution panels or transformers.
- Nothing will be stored in rooms or closets designated for electrical equipment.
- Safety signs which warn employees about any electrical hazards shall be displayed prominently on the door of the room or closet. (**Appendix C**)

Ground Fault Circuit Interrupters

A GFCI monitors the amount of current flowing from the hot wire to the neutral wire. If the amount of current is not even, the device automatically shuts off the electric power in as little as 1/40 of a second to prevent electrocution. GFCIs are easily recognized by the test and reset buttons built into the devices. The GFCI can be located on the extension cord, outlet or the circuit breaker. A GFCI is required in outlets that are installed around sinks or any other areas where water may be present such as construction projects.

Some examples of GFCI may include GFCI OUTLES or PORTABLE GCFI as shown in the following pictures.

Ground fault circuit interrupters (GFCIs) protect Eskola LLC employees and contractors who use electrically-powered tools and equipment from electrical shocks, especially when working in wet environments. GFCIs are required for electrically-powered equipment and tools in the following conditions:

- When used at construction projects or renovation sites.

- When used at locations where employees are likely to contact water or conductive liquids, such as outdoors, bathrooms, or any other area with potential exposure to water
- When used for portable lighting in wet or other conductive locations (such as inside boilers or tanks)

OSHA Compliance Programs: Electrical Safety (Continue)

Working near Power Lines

Both overhead and underground power lines present electrical hazards. The following procedures shall be adhered to when working near power lines:

- Remain at least 10 feet away from overhead power lines.
- If the voltage is greater than 50,000 volts, add 4 more inches of safe distance for each 10,000 volts beyond 50,000. If the voltage is unknown, employees required to remain at least 20 feet away from overhead power lines.
- If clearance cannot be achieved, the Eskola LLC Supervisor, Manager or Safety Manager will contact the Local Electric Company to de-energize or insulate powerlines.
- When working around high voltage lines, ground all equipment that may become energized.
- Call **TN's Call Center at 811, (800)-351-1111, or (615)-366-1987**, 48 hours before any digging. Once underground power lines have been identified, add an additional 18-inches clearance on either side of the marking or flag. Do not dig in this clearance area. If it is required to dig within the clearance area Eskola LLC will use an outside contractor to perform the work.

Additional Safety Precautions

The following additional safety precautions shall be adhered to at all times:

- If a circuit breaker trips or blows a fuse more than once, it shall be investigated and corrected by an authorized qualified electrical contractor before being cleared for continued use.
- All areas with electrical equipment shall be properly illuminated.
- Housekeeping duties will not be performed in an area if there is a possibility of contact with an electrical hazard unless there are protective shields, barriers or if insulated materials are used to protect the employee.
- Safety signs that warn employees about any electrical hazards shall be displayed prominently when a hazard is present. (**Appendix A**)

Personal Protective Equipment (PPE)

Employees working in areas where electrical hazards are present will be provided with and shall use PPE that is designed for the specific part of the body to be protected and for the work being performed. Employees are required to adhere to the following procedures for PPE use:

- All PPE must be inspected prior to each day's use and immediately following any incident.
- Non-conductive head protection will be worn if there is danger of electrical burns or shock from contact with electricity.

- When working on electrical equipment or wiring, employees will:
 - Not wear conductive articles of clothing or jewelry
 - Wear non-melting clothing such as cotton
 - Wear electrical-rated boots
 - Wear non-conductive gloves

OSHA Compliance Programs: Electrical Safety (Continue / Appendix A)

Employee Training

Qualified Workers. At the minimum, qualified worker must be trained on the following:

- The hazards associated with electrical equipment
- Electrical safety practices and procedures (lockout/tagout) for doing deenergized work
- Safe work practices that must be followed when working around or with electrical tools or equipment
- How to distinguish exposed live parts from other parts of electrical equipment
- How to properly inspect and use the appropriate PPE
- The location of the electrical breaker panels and fuse boxes

Unqualified Workers. Unqualified workers will receive general electrical safety awareness training on how to recognize, evaluate and avoid electrical hazards and training on all Eskola LLC's electrical safety practices.

Training will occur before an employee begins work in a new area and when an employee does not comply with safe work practices. Retraining will occur every 2 years. Training will be documented and filed by Eskola LLC Safety Manager

Periodic Program Review

Eskola LLC Safety Manager will review the Electrical Safety Program and procedures annually.

Appendix A – List of Qualified Employees

Name of Qualified Employee	Date of Qualification

OSHA Compliance Programs: Electrical Safety (Continue / Appendix B and C)

Appendix B – Electrical Hazard Sign One



**ELECTRICAL
HAZARD
AUTHORIZED PERSONNEL ONLY**



DS0165

Appendix C – Electrical Hazard Sign Two

DANGER

ELECTRICAL SUPPLY STATION ALL UNAUTHORIZED PERSONS ARE FORBIDDEN TO ENTER



DS0102

OSHA Compliance Programs: Fire Prevention

PURPOSE AND SCOPE

The purpose of **Eskola LLC's Fire Protection Program** is to protect employees from injury or death and prevent property damage caused by uncontrolled fire hazards in the workplace. This is accomplished by training employees to identify fire hazards and taking the appropriate actions to correct hazardous conditions before a fire result.

This Fire Prevention Program applies to all Eskola LLC employees and contractors. Any deviations from this program must be immediately brought to the attention of the Safety Manager. **Eskola LLC's Emergency Action Plan** covers the procedures for responding to fire emergencies.

PROGRAM RESPONSIBILITIES

Management: Management is responsible for providing the tools and resources (fire extinguishers) necessary to implement this program and for ensuring that the requirements in this program are being followed by all employees.

Safety Manager: Safety Manager is responsible for:

- Ensuring all branches has a copy of the program
- Ensuring all employees are trained on the program
- Scheduling training
- Stopping any unsafe work practices
- Identifying all major fire hazards
- Identifying and controlling potential ignition sources
- Developing proper storage and handling procedures for hazardous materials
- Ensuring fire control and suppression systems are properly tested and maintained
- Maintaining records pertaining to the program
- Periodically reviewing the program and updating it as needed

Supervisors: Supervisors are responsible for:

- Ensuring assigned employees are trained on the program
- Notifying the Safety Manager when changes in operation increase the risk of fire, introduce a new ignition source or introduce a new hazardous material
- Identifying and correcting any unsafe acts or conditions immediately
- Identifying approved storage areas for combustible materials to employees

Employees: All employees are responsible for:

- Attending assigned training
- Understanding and following all procedures in this program
- Conducting operations safely to limit the risk of fire
- Controlling the accumulation of combustible materials in their work area
- Reporting potential fire hazards to their supervisor

HOUSEKEEPING AND STORAGE

Combustible Solid Materials

At a minimum, all waste, scrap or trash shall be disposed of at the end of each shift. Waste will be placed in the provided trash receptacles or exterior dumpsters. At no time should waste, scrap or trash be left on the floor, machines or work areas overnight. Excessive amounts of combustible materials should be removed throughout the work shift to reduce the chance of fire or if it creates another hazard such as a slip or fall.

Storage of large quantities of combustible materials is allowed only in approved areas. Limited storage will be allowed at workstations with Safety Manager approval. All exterior trash dumpsters shall be kept a minimum of 25 feet away from any building.

OSHA Compliance Programs: Fire Prevention (Continue)

HOUSEKEEPING AND STORAGE

Combustible and Flammable Liquids Storage

All combustible and flammable liquids and aerosol cans will be stored in the yellow flammable liquid storage cabinets or in the marked flammable liquid storage room when not in use. Flammable liquid storage cabinets are strategically located at Eskola LLCs' warehouses and construction projects. The doors of the flammable liquid storage cabinets must be kept closed at all times unless being accessed.

All combustible liquids will be kept in sealed containers when stored. All flammable liquids will be stored and distributed in approved **TYPE 2 SAFETY CAN**. A safety can is a container no larger than five gallons that has a self-closing lid, internal-pressure relief, and flame arrestor. Plastic cans without these features are not approved. Eskola LLC has set the following color-coding system for our Safety Cans to help employees differentiate the various type of liquids and avoid misusage when more than one type of liquid is present at a jobsite:



Red Type 2 Safety Cans
are used for gasoline



Yellow Type 2 Safety
Cans are used for diesel

Non-liquid combustible materials (e.g. paper, wood, plastics, etc.) shall not be stored inside the flammable liquid storage cabinets or flammable liquid storage room. At no time shall **gasoline-fueled equipment be refueled while smoking** or near an **ignition source. NO EXEMPTIONS!!!**

Combustible and Flammable Liquid Spill Clean-up

All spills of flammable or combustible liquids shall be cleaned up immediately. Rags, paper towels or other spill clean-up materials shall be disposed of immediately in the approved red metal containers. All oily rags or paper towels shall be disposed of at the end of each shift in the approved red metal containers located in the warehouse. These containers will be emptied into the trash dumpsters only on the morning of trash pick-up.

Smoking

Smoking inside of any Eskola LLC building or Construction Project is prohibited. Outdoor designated smoking areas are identified with signage and Fire-safe metal receptacles are available for disposal of all ash and buds. **NEVER SMOKE NEAR A FUELING STATION OR WHILE REFUELING AN EQUIPMENT.** A failure to follow the policy will be considered **GROSS CONDUCT.**

Combustible Dust Collection Systems

All dust collection systems will be located on the exterior of our buildings and designed to minimize leakage. Isolation devices designed to prevent fire propagation will be installed between each piece of equipment connected to the dust collection system. The dust collection system will be equipped with spark detection and explosion suppression systems and be grounded and bonded to dissipate all electrostatic charges. Dust collection systems will be inspected annually or upon identification of a leak.

OSHA Compliance Programs: Fire Prevention (Continue)

IGNITION SOURCES

Eskola LLC's buildings and construction projects contain a wide variety of ignition sources and heat producing equipment that could start a fire if not properly maintained and guarded. These ignition sources will be reviewed annually to determine if all safeguards are in place and regular maintenance has been performed to reduce the potential for a fire. The Safety Manager will perform the review using the form in **Appendix A.**

Electrical Sources

All employees will follow Eskola LLC's Electrical Safety Program to reduce the possibility of an electrical fire. No storage is allowed in electrical distribution closets at any time. All electrical distribution closets will remain locked at all times. A three-foot clearance must be maintained around all electrical panels. All electrical panel covers, and access doors must remain closed and secured from unauthorized access.

All electrical equipment must be kept clean. Grease and dust are to be removed annually unless the equipment has been cleaned between the annual inspection.

Heating and Water Heating Units

All water heaters will be inspected annually by a trained and knowledgeable individual to ensure proper operation and that all safety devices are functioning. Heating units will be inspected in the third quarter of each year. No storage is allowed within four feet of any heating unit.

Portable Heaters

All portable heaters shall be approved by the Safety Manager. Portable electric heaters shall have tip-over protection that automatically shuts the unit off when it is tipped over. There shall be adequate clearance

between the heater and any combustible materials at all times. Employees must turn off portable heaters when leaving their work areas. When portable heaters are in use a Fire extinguisher must be present

Open Flames

All employees will follow Eskola LLC's Hot Work Program to reduce the possibility of sparks, slag or open flames starting a fire. Torches shall be placed so that the flames are at least 18 inches away from combustible surfaces. They will not be used in the presence of dust, vapors, flammable or combustible liquids, paper or other combustible materials. Torches shall never be left unattended while they are burning.

Static Electricity

Eskola LLC recognizes that it is impossible to completely prevent the generation of static electricity but realizes it can be reduced by preventing the buildup of static charges. One or more of the following preventive methods will be used to reduce static buildup for static-accumulating equipment:

- Grounding
- Bonding
- Maintaining a specific humidity level (usually 60-70 percent)
- Ionizing the atmosphere

When a static-accumulating piece of equipment is unnecessarily located in a hazardous area, the equipment will be relocated to a safe location.

Office Hazards

Drop cords or multi-plug strips must be authorized and provided by the Safety Manager. Extension cords must never be placed under carpets, through doorways or across walkways. Personal appliances (e.g. fans, microwaves, coffee makers) may not be used without prior approval of the Safety Manager. All non-essential electrical equipment must be turned off at the end of the workday.

OSHA Compliance Programs: Fire Prevention (Continue)

FIRE PROTECTION & DETECTION

Fire Extinguishers

Different types of fire extinguishers are designed to put out different types of fires. Fires extinguishers are classified as A, B, C, D or K based on the type of fuel for the fire.

- Class A—fires involving ordinary combustibles, such as paper, trash, wood or cloth
- Class B—fires involving flammable gases or liquids, such as propane, oil or gasoline
- Class C—fires involving energized electrical components
- Class D—fires involving metal, such as aluminum, magnesium, titanium, sodium, lithium or potassium
- Class K—fires involving vegetable or animal cooking oils or fats.

*Selecting the wrong extinguisher can actually make a fire worse!!!

Eskola LLC buildings and Construction Projects are all equipped with **ABC** portable fire extinguishers. These extinguishers are wall mounted and marked with signage above their location in all buildings and mounted on red bases on any construction projects. All Eskola LLC vehicles are also equipped with fire extinguishers. All employees should be aware of the fire extinguisher locations, especially those nearest to their normal workstation. All Eskola LLC will be trained to evaluate and safely attempt to extinguish fires at their discretion.

All Eskola LLC will be trained in the PASS method of extinguishing fires.

- P**—Pull the pin on the extinguisher
A—Aim the nozzle at the base of the fire
S—Squeeze the handle
S—Sweep the nozzle side to side

Although Eskola LLC has provided portable fire extinguisher for employees use in the workplace, NEVER feel that using a fire extinguisher is required. If the fire is too hot, too smoky or you are frightened, alert other persons in the immediate hazard area, and if possible active the fire alarm and evacuate immediately.

All fire extinguisher will be inspected monthly using **Appendix B** to ensure it is in its designated location, has not been tampered with and is clearly visible with nothing obstructing access. All fire extinguishers will be inspected annually by **Bullseye Fire Extinguisher Co.** and recharged or repaired to ensure they are operational. A tag will be attached to show the inspection date and the signature of the person who performed the inspection.

Fire Detection

Eskola LLC buildings are equipped with integrated smoke or heat detection, illuminated emergency exit signage, and emergency lighting. These devices will be inspected annually, and records will be maintained by Eskola's Safety Manager. Employees will communicate any damaged, non-working or missing devices to the Safety Manager. Repairs or replacements to these devices will be completed as soon as practical.

Exit Doors and Routes

All exit routes and doors shall be kept clear at all times. Exit doors must be able to open from the inside at all times without the use of keys, tools or special knowledge. Exit routes will be maintained during periods of construction, repairs or building alterations.

OSHA Compliance Programs: Fire Prevention (Continue)

CONTRACTORS

All contractors working with or for Eskola LLC must comply with this program. Additional requirements include:

- Flammable and combustible liquids must be removed from the projects at the end of each day or an arrangement must be made to store them on a flammable liquid storage cabinet.
- Flammable and combustible waste must be removed from the facilities at the end of each workday.
- Fire doors must not be blocked or fastened open.
- Wires, cables and hoses shall not pass through a doorway, preventing the door from closing completely.
- Compressed gas cylinders must be securely fastened and stored in an upright position.

EMPLOYEES TRAINING

Every employee will be trained on recognizing general fire hazards, the specific fire hazards associated with their job and the procedures to follow in the event of a fire emergency (fire response information can be found in the Emergency Action Plan on page 19). Training will consist of the following:

- Proper housekeeping practices
- Ignition source identification
- Information on fire detection and suppression systems
- Fire notification systems
- Proper response in the event of a fire

Supervisors must review the Fire Prevention Program with their employees whenever:

- The employee's responsibilities under the program changes
- Approved changes are made to the program
- There is a change in the type of fire protection equipment or notification system
- A known fire hazard is added to the work environment
- A fire protection procedure fails

All training will be recorded in the Employee Training Record by the Safety Manager.

PERIODIC PROGRAM REVIEW

Eskola Safety Manager will conduct an annual review to assess the program's effectiveness. The review will consider the following:

1. General safety observations
2. Lessons learned from fire incidents
3. Changes in operations or equipment
4. New technology
5. Regulatory changes

If any deviation is found or a modification to this program is needed, Eskola LLC Safety Manager will make the corrective changes and retrained all Eskola LLC employees

RECORD RETENTION

Eskola LLC will maintain Fire Prevention Program training records for 5 years. All Fire Prevention Program records will be kept by the Safety Manager.

OSHA Compliance Programs: Fire Prevention (Continue/ Appendix A)

Appendix A - Ignition Source Survey

Date: _____ **Location:** _____

Completed by: _____

OSHA Compliance Programs: Fire Prevention (Continue/ Appendix B)

Appendix B - Fire Extinguisher Inspection

Date: _____ Location: _____

Completed by: _____

Hot Work Safety Program

Purpose and Scope

Eskola LLC is committed to providing a safe and healthy work environment and to protecting our employees from injury or death caused by uncontrolled hazards in the workplace. Eskola LLC recognizes the potential for fire from hot work operations. The Hot Work Program has been established to help protect the safety of Eskola LLC's employees and property by establishing appropriate hot work procedures.

This program applies to all employees (permanent, temporary and contractors) who complete hot work or work in areas where hot work is taking place. All employees are required to follow the procedures outlined in this program. Any deviations from this program must be immediately brought to the attention of the Safety Manager.

Program Responsibilities

Management. The management of Eskola LLC is committed to the overall safety of its workers and facilities. Management supports the efforts of the Safety Manager by pledging leadership support and financial resources for this program and ensuring the program is being followed.

Safety Manager. Eskola LLC Safety Manager reports directly to upper management and is responsible for developing and implementing the Hot Work Program. Safety Manager is responsible for:

- Developing safe usage protocols for all heat, flame and spark-producing equipment
- Providing appropriate training to all employees of Eskola LLC that perform or authorize hot work activities
- Establishing procedures and a permit system for performing hot work.
- Designating individuals who can approve hot work activities and issue permits.
- Identifying the proper personal protective equipment (PPE) needed during the hot work procedures
- Completing air monitoring in the event a potentially explosive atmosphere is identified
- Providing outside contractors working on Eskola LLC's premises with training and information on the Hot Work Program and procedures
- Retaining records of training and all hot work permits
- Reviewing the program at least annually, and when changes are needed, or new equipment is added

Supervisors. Supervisors are responsible for:

- Ensuring that only qualified and trained authorized employees perform hot work activities
- Ensuring that employees who are found to have insufficient skills or understanding of hot work procedures do not perform hot work activities and receive retraining before conducting any hot work procedures
- Ensuring employees comply with all procedures described in this program
- Ensuring all hot work activities are approved prior to being performed
- Completing hot work permit requests when necessary
- Identifying dangerous situations, not suitable for hot work
- Designating a fire watch employee for all hot work performed during and for no less than 30 minutes after work is completed
- Conducting final inspections after a fire watch period has concluded
- Inspecting hot work areas after each shift to ensure no smoldering materials are present
- Providing information to the Program Administrator regarding needed improvements to this program

Hot Work Safety Program (Continue)

Program Responsibilities (Continue)

Hot Work Approver. A hot work approver is an employee who has been trained to approve hot work.

Duties of the hot work approver include:

- Determining if the work can be completed or moved to a safe hot work area.
- If the work cannot be moved, ensuring all combustible materials in the vicinity are removed
- If all combustible materials cannot be removed, ensuring that guards are in place to confine the heat, sparks, and slag.
- Inspecting hot work areas and reviewing planned safety precautions before hot work operations begin
- Communicating with employees regarding hot work activities to ensure their safety
- If approval for hot work is granted, issuing and posting hot work permits which list all required precautions
- Establishing a fire watch during and for no less than 30 minutes after completion of the hot work

Authorized Personnel. Authorized personnel include employees or contractors who are trained to perform hot work activities including soldering, welding, heat-treating, grinding, torch-applied roofing and any other application involving heat, sparks or flames. Duties of authorized personnel include:

- Completing all required hot work training
- Seeking approval and/or a permit to perform hot work prior to beginning operations
- Performing hot work activities and procedures in accordance with this program
- Inspecting hot work areas for combustibles and other hazards prior to beginning hot work
- Inspecting hot work equipment to ensure it is in safe operating condition before beginning work
- Retaining control of the equipment while hot work is in progress

Fire Watch Personnel. A fire watch is a designated employee who monitors the hot work area for fires while work is being performed and for 30 minutes after its completion. Duties of the fire watch personnel include:

- Maintaining continuous watch over hot work activity during and for 30 minutes after work has been completed
- Monitoring adjacent areas for fires
- Extinguishing small, controllable fires with extinguishing equipment available in the hot work area
- Activating fire alarm if an uncontrollable fire occurs
- Signing the hot work permit 30 minutes after the work is complete and re-posting signed permit in the hot work area
- After the hot work and mandatory 30-minute monitoring period is complete, periodically returning to the area where the hot work was completed to check for fires for three hours
- Ensuring that the supervisor has conducted a final inspection after the fire watch period has concluded and signs off on the permit
- Having a supervisor find another trained person to relieve him/her if the designated individual must leave for any reason

Other Personnel. This includes employees or contractors who are neither authorized personnel nor fire watch personnel but are still exposed to areas where hot work is performed. Other personnel should not perform any hot work activities. Duties include wearing proper personal protective equipment when in a 35-foot radius of hot work.

Hot Work Safety Program (Continue)

Non-Permit Required Hot Work Activities

Employees are not required to get a Hot Work Permit in when performing this task:

- When air heat welding is used in a proper manner and is maintained.
- When using a grounder on walls or other non-combustible materials
- When using an electric air heater or non-combustible heater.

These are only some few tasks that do not require Hot Work Permits, but If an Employee has a question or is not sure if either get a permit or not, He/she must STOP and consult with his foreman/supervisor. If foreman/supervisor is also not sure, then Eskola LLC Safety Manager must be contacted immediately.

Permit Required Hot Work Procedures

Basic Precautions:

At a minimum, all of the following precautions must be met to perform hot work.

- All combustible materials within 35 feet of the hot work shall be moved to a safe distance or other location.
- If combustible materials cannot be moved, they are protected by fire-retardant covers or they are shielded with fire retardant or metal guards.
- Appropriate PPE is provided to employees performing hot work based upon a hazard assessment.
- A fire watch is initiated during and for 30 minutes after all hot work has stopped.
- The hot work approver has inspected the hot work area prior to beginning work.
- The hot work approver has issued and posted a hot work permit (**Appendix A, B, and C**)

Special Precautions:

Where any of the following conditions exist, additional precautions shall also be taken above the basic precautions. The final protection measures will be determined by the hot work approver prior to beginning work.

Floor Openings/Coverings – The floors shall be protected from exposure to flames, sparks, slag or other hot materials whenever there are combustible floors or materials on the floor, floor openings or cracks in the floors. Protections may include:

- Fire-resistant shields or material
- Wetting down floors
- Covering floors with damp sand
- Sweeping combustibles from floor
- Additional protections deemed necessary by the hot work approver

Wall Openings – The walls shall be protected from exposure to flames, sparks, slag or other hot materials whenever there are combustible walls, wall openings, pipe penetrations or ducts. Protections may include:

- Fire-resistant shields or materials
- Shutting dampers
- Separate fire watch on the other side of the walls
- Additional protections deemed necessary by the hot work approver

Potentially Explosive Atmospheres – If there is a potential for mixtures of flammable gases, vapors, liquids or dust in the air, **no hot work will be conducted** until the Safety Manager has completed a review and air monitoring has confirmed that there is no danger of an explosion.

Containers – No hot work will be performed on used drums, barrels, tanks or other containers until they have been cleaned thoroughly. The hot work approver must determine that no flammable materials and no substance such as greases, tars, acids or other material which might produce flammable or toxic vapors if exposed to heat are present.

Hot Work Safety Program (Continue)

Contractors

Whenever contractors perform any hot work activity they will be informed of the Eskola LLC Hot Work Program and procedures by the Safety Manager, or the hot work approver. All outside personnel are required to obtain a permit (**Appendix A, and B**) from the hot work approver and post the Hot Work Permit with the appropriate “**Warning**” signage to warn employees of the hazard (**Appendix A, B, and C**). All appropriate safety information will be communicated to the contractor(s) before work begins.

Protection of Personnel

General. All personnel conducting hot work or assisting with hot work on elevated platforms, scaffolds or runways will be protected from falling. The fall protection system will consist of either full railings or a fall arrest system with a full body harness, lanyard and approved connection point. Hot work personnel will position all cables, hoses and other equipment out of passageways and emergency egress paths whenever possible.

PPE. All personnel conducting hot work or assisting with hot work must wear the appropriate personal protective equipment. The appropriate protection is determined by the Personal Protective Equipment Program survey and outlined in the PPE Program document. Do not begin any hot work operations without obtaining and wearing the required protection.

Cutting, Heating, Torching, and Grinding. The following PPE must be worn when completing this type of hot work.

- **Eye and face protection**
 - Face Shield with ANSI Z87.1
 - Safety glasses with side shield under the helmet
- **Head and ear protection**
 - Approved Hard Hat
 - Approved ear-plugs or muffs
- **Foot Protection**
 - Leather, steel-toed, high-topped boots in good condition and that meet the requirements of ASTM F2412 and ASTM F2413
 - Do not wear pants with cuffs. The bottoms of pants should be worn over the tops of the boots
- **Hand Protection**
 - Dry, hole-free, insulated and flame-resistant welding gloves
- **Body Protection**
 - Oil-free protective clothing made of wool or heavy cotton
 - Clothing should allow for freedom of movement and should prevent skin exposure
 - Leather aprons, leggings, capes, and sleeves as needed

Equipment

Eskola LLC Employees are prohibited to use any tool or equipment unless trained. All tools and equipment used to perform hot work operations will be inspected prior to use.

Hot Work Safety Program (Continue)

Permit System

In order to ensure adequate controls and safety precautions are being used in hot work areas, a hot work permit system will be used.

Procedures:

1. Authorized person or supervisor will complete and submit hot work permit request (**Appendix A**) to hot work approver.
2. Hot work approver will review planned safety precautions and inspect the hot work site using the hot work permit checklist (**Appendix B**) within **30 minutes** of receiving the request.
3. Hot work approver will inform employees in the immediate area that hot work is going to be conducted and to avoid the area.
4. Hot work approver will communicate any additional special precautions that need to be taken prior to beginning operations.
5. If all necessary precautions have been taken and work can proceed, the hot work approver will complete the hot work permit and post the warning sign in a highly visible area.
6. Copies of all hot work permit information will be sent to the Program Administrator.
7. Upon completion of the hot work operations and the 30-minute fire watch, the hot work approver will inspect the completed job and ensure the area is clear and ready to return to normal operations.
8. Hot work approver will inform the employees in the immediate area that work is completed to return to normal operations.

Voiding Permits: Hot work permits will be void and all hot work must not begin or must be immediately stopped if any of the following occur:

- Fire alarm sounds
- Work has not begun within **60 minutes** of approved time
- Work has been suspended for more than **60 minutes**
- A work shift ends or there is a change in authorized or approval personnel
- At any time, the authorized employee, supervisor or hot work approver detects a danger or uncontrolled hazard

Whenever a hot work permit is voided, a new permit must be issued to begin or continue hot work operations.

Hot Work Safety Program (Continue)

Employee Training

Hot Work Approvers / Authorized Personnel / Supervisors.

Before any employees designated as hot work approvers, authorized personnel or supervisors are allowed to perform any hot work operations, they must first receive training. Periodic retraining will occur if an employee has a lack of knowledge, uses equipment improperly or if work tasks change. At a minimum, the training will include the following subjects:

- Fire prevention and protection
 - Basic precautions
 - Special precautions
- Employee classifications and responsibilities
 - Hot work approver
 - Authorized personnel
 - Supervisors
 - Fire watch personnel
- Hot work procedures
- Protection of personnel
- Hot work permit system
- Handling and storage of hot work materials
- PPE selection and use

Periodic Program Review

All hot work procedures will be reviewed at least annually by an authorized employee who does not regularly work with the hot work procedure or by the Safety Manager. If any inadequacies are identified, the Safety Manager will update the procedures and program. The annual review will include a discussion between the reviewer and each authorized employee to determine if he/she understands their responsibilities under the program.

Record Retention

Written training records, which include trainee names, the type of training provided and the dates when training occurred, will be kept by Eskola LLC Safety Manager for **7 years**.

Safety Manager will maintain the hot work permits for **7 years** and the annual program review documents indefinitely.

Hot Work Safety Program (Continue): Appendix A – Hot Work Permit Request

HOT WORK PERMIT REQUEST

Before beginning hot work, ask yourself, "Can this job be avoided? Is there a safer way?"

Hot work permits are required for any operation involving open flames, sparks or any heat-producing process. This includes, but is not limited to, brazing, cutting, drilling, welding, grinding, soldering and torch work.

The person performing the hot work must fill out this form in its entirety and submit it to the safety director for approval prior to beginning the project.

General Information

Company: _____

Responsible person: _____ Phone number: _____

Date work to be performed: _____ Start time: AM / PM _____

Building: _____

Room number/area/equipment: _____

Type of work to be performed: _____

- Welding Cutting Grinding Soldering Drilling
 Brazing Torch-applied roofing Electric tools Other heat-producing process

Planned Safety Precautions

- Perform fire watch. (List designated person.) _____
- Remove flammable and combustible materials within 35 ft. of the work zone.
- Guard flammable and combustible materials that cannot be removed.
- Maintain appropriate and adequate fire extinguishers.
- Sweep floors within 35-ft. radius of the work zone.
- Protect floors within 35-ft. radius of the work zone by wetting, covering with damp sand or by using fire-resistant shields.
- Protect or shut down ducts and conveyors.
- Protect walls, partitions, ceilings and roofs with fire-resistant shields or guards.
- Other _____

Hot Work Safety Program (Continue): Appendix B – Hot Work Permit Page 1

HOT WORK PERMIT

A completed and signed hot work permit is required before any hot work process can begin. Both pages of this permit and the warning page are required to be posted at the work area during the hot work process or for the approved permit period.

Hot Work Safety Checklist

- Hot work process is located in the safest location possible or in an approved area.
- Precautions are in place to protect floors, walls, open doorways or open windows within a 35-ft radius of the work zone.
- Suitable fire extinguishing devices are available at the hot work site.
- If the worksite is inside a building equipped with a sprinkler system, the system is operational.
- If the worksite is inside a building equipped with a sprinkler system, the sprinkler heads within a 3-ft radius of hot work operations have been covered with a wet rag to prevent unwanted alarms.
- If the worksite is inside a building equipped with smoke detectors, the smoke detectors within a 3-ft radius of hot work operations have been covered to prevent unwanted alarms
- Hot work equipment is in good repair.
- Fire watch personnel are trained in the proper use of extinguishing equipment and alarm operation.
- Fire watch is posted and will remain for at least 30 min after all hot work has been completed.
- No flammable or combustible fibers, dust, vapors, gasses or liquids are in the area.
- Floors are swept clean within a 35-ft radius of the work zone.
- Combustible floors are wet, covered with damp sand or protected by fire-resistant shields.
- Combustible materials are relocated at least 35 ft away from the work zone.
- Immovable combustibles are protected with flameproof covers or otherwise shielded with metal guards.
- Ducts and conveyors are protected or shut down.
- Combustible walls, partitions, ceilings, and roofs are protected with fire-resistant shields or guards.
- No danger exists from conduction of heat through noncombustible walls, partitions, ceilings, and roofs.
- There is adequate clearance between combustible material and pipes and other metals.
- There is adequate ventilation to remove smoke, vapor, and dust from the work zone.
- All required lockout/tagout procedures are in place.
- Hot work operators are adequately trained.
- Contractors are advised about all hazardous materials and conditions they may encounter.
- Supervisors and employees are notified of nearby hot work operations.

Hot Work Safety Program (Continue): Appendix B – Hot Work Permit Page 2

HOT WORK PERMIT

(page 2)

Authorization

I have personally inspected the location where the above work is to be done, have checked for compliance with the safety precautions listed on this permit and authorize the work to be performed.

Name: _____

Title: _____

Signature: _____ Date: _____

Permit #: _____

Authorized duration of permit: _____ To: _____
Date and Time _____ Date and Time _____

This permit is only valid as long as the working conditions existing at the time of issuance are maintained. The permit will automatically and immediately expire when any change in conditions adversely affects the safety of the work area while hot work is in progress. After a change occurs, another hot work permit must be issued before work can resume.

**This permit and the associated warning sign
must be posted near the hot work site during all hot work.**

WARNING

HOT WORK IN PROGRESS

WATCH FOR FIRE

**Stop work immediately if an emergency alarm
signals an emergency situation in or near your work area.**

If you have questions about these hot work operations:

Contact: _____
(Safety Manager)

Phone number: _____

WARNING

General Safety Precautions

CONFINED SPACE

Only trained and authorized employees are permitted to enter confined spaces. If you believe that your job requires confined space entry, contact your supervisor and Safety Manager to written approval prior to undertaking the work. Confined spaces are areas not meant for human occupancy, have limited means of entry/exit, and have electrical, chemical, thermal, atmospheric, or entrapment hazards. Failure to get written approval prior to entry is considered **Gross Misconduct**.

HOUSEKEEPING

1. Do not place materials such as boxes or trash in walkways and passageways.
2. Sweep up shavings from around equipment such as drill presses, lathes or planers by using a broom and a dustpan.
3. Mop up water around drinking fountains, drink dispensing machines and ice machines immediately.
4. Do not store or leave items on stairways.
5. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
6. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
7. Straighten or remove rugs and mats that do not lie flat on the floor.
8. Remove protruding nails or bend them down into the lumber by using a claw hammer.
9. Return tools to their storage places after using them.
10. Do not use gasoline for cleaning purposes.
11. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.

LIFTING

1. Plan the move before lifting; ensure that you have an unobstructed pathway.
2. Test the weight of the load before lifting by pushing the load along its resting surface.
3. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks, and carts, or get assistance from a co-worker.
4. If assistance is required to perform a lift, coordinate and communicate your movements with those of your co-worker.
5. Position your feet 6 to 12 inches apart with one foot slightly in front of the other.
6. Face the load.
7. Bend at the knees, not at the back.
8. Keep your back straight.
9. Get a firm grip on the object using your hands and fingers. Use handles when they are present.
10. Hold the object as close to your body as possible.
11. While keeping the weight of the load in your legs, stand to an erect position.
12. Perform lifting movements smoothly and gradually; do not jerk the load.
13. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.
14. Set down objects in the same manner as you picked them up, except in reverse.
15. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.
16. Never lift anything if your hands are greasy or wet.
17. Wear protective gloves when lifting objects that have sharp corners or jagged edges.

General Safety Precautions

LADDERS & STEPLADDERS SAFETY

1. Read and follow the manufacturer's instructions label affixed to the ladder if you are unsure how to use the ladder.
2. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber foot pads, or are otherwise visibly damaged.
3. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or mud.
4. Do not place ladders in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from the ladder. Lock the doorway that you are blocking with the ladder and post signs that will detour traffic away from your work.
5. Do not place a ladder at a blind corner or doorway without diverting foot traffic by blocking or roping off the area.
6. Allow only one person on the ladder at a time.
7. Face the ladder when climbing up or down it.
8. Maintain a three-point contact by keeping both hands and one foot or both feet and one hand on the ladder at all times when climbing up or down the ladder.
9. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder. Do not jump from ladders or step stools.
10. Do not stand on tables, chairs, boxes or other improvised climbing devices to reach high places. Use the ladder or stepstool.
11. Do not stand on the top two rungs of any ladder.
12. Do not stand on a ladder that wobble, or that lean to the left or right of center.
13. When using a straight or extension ladder, extend the top of the ladder at least three (3) feet above the edge of the landing.
14. Secure the ladder in place by having another employee hold it if it cannot be tied to the structure.
15. Do not move a rolling ladder while someone is on it.
16. Do not place ladders on barrels, boxes, loose bricks, pails, concrete blocks or other unstable bases.
17. Do not carry items in your hands while climbing up or down a ladder.

AIR COMPRESSORS

1. See that kickoff pressure is normal. Report improper conditions at once for adjustment.
2. Never tamper with adjustment of safety valve or kickoff.
3. Inspect the air compressor tank gauge to see that it is registering.
4. Never hammer or tinker with a compressor tank when it is under pressure.
5. Keep clamps on air hose tight.
6. Release all air from air hoses before disconnecting from the compressor.
7. Secure all quick-connect couplings properly and safety wire connections.
8. Use only oil designated for air compressor use.
9. Drain air compressor chamber daily to remove accumulated water and oil.
10. ***The use of Compressed Air to clean an employee is prohibited. No exemptions!!!***

General Safety Precautions

SCAFFOLD SAFETY

1. Only Eskola LLC qualified persons shall design, build, or inspect scaffolds, under the supervision and direction of an Eskola LLC competent person.
2. If qualified competent person, Follow the manufacturer's instructions when erecting the scaffold.
3. During stormy or windy weather, any work on scaffolds outside is prohibited.
4. A minimum of 10 ft. distance shall be maintained from energized power lines. If not possible, the energized power line will have to be blanketed or power removed by the power company.
5. Lean to scaffolds and makeshift platforms are prohibited.
6. Only materials currently being used shall be stored on scaffolds. Materials are to be placed over cross members at all times. All materials shall be removed from the scaffold nightly.
7. All scaffolds shall be designed to carry **FOUR (4)** times the maximum intended load. At no time shall the scaffold be overloaded. Unstable objects such as barrels, boxes, and loose bricks shall not be used to support scaffolds.
8. All scaffolds over **SIX (6)** feet high are required to have standard guardrails and toeboards attached. When the crosspoint of crossbracing is used as a top rail, it must be between 38 inches (0.97 m) and 48 inches (1.3 meters) above the work platform, **1926.451(g)(4)(xv)**. When a crosspoint of crossbracing is used as a mid rail, it must be between 20 inches (0.5 meters) and 30 inches (0.8 m) above the work platform, **1926.451(g)(4)**.
9. All scaffolds with a **GREEN** tag will not require additional fall protection, this means the scaffold meets all OSHA requirements.
10. All scaffolds with a **YELLOW** tag will require additional fall protection, this means the scaffold does not fully meet OSHA requirement but is safe to use but harness and lanyard or retractable are required.
11. DON'T USE a scaffold with a **RED** tag means that is under modification, erection or dismantling.
12. All scaffolds must be maintained in safe condition and scaffolds damaged or weakened must be replaced immediately.
13. Scaffolds shall be braced and tied both horizontally and vertically at intervals according to specified regulations.
14. Scaffolding should be tied to the structure using heavy wire or tie-in devices. The first vertical tie should be at the maximum height of 4 times the narrowest base dimension. Additional vertically every 20 feet (6.1 meters) or less for scaffolds less than three feet (0.91 meters) wide; every 26 feet (7.9 meters) or less for scaffolds more than three feet (0.91 meters) wide; horizontal distance between ties is not to exceed 30 feet.
15. Scaffolds with any dimension less than 45 inches shall be equipped with outriggers and guarded with standard four feet high railings.
16. Mobile scaffolds shall be equipped with guardrails, mid-rails, toe boards, and outriggers. Do not move a mobile scaffold if anyone is on the scaffold. Chock the wheels of the rolling scaffold, using the wheel blocks, and also lock the wheels by using your foot to depress the wheel-lock, before using the scaffold.

General Safety Precautions

SCAFFOLD SAFETY (Continue)

17. All casters shall be locked and guarded with standard railings. Mobile scaffolds shall not be used if there is a change in the floor level elevation. Do not use unstable objects such as barrels, boxes, loose brick or concrete blocks to support scaffolds or planks. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
18. Ladders must be used to climb scaffolds at all times. Workers shall never climb a scaffold's cross bracing and/or do not jump from, to, or between scaffolding.
19. Do not work on platforms or scaffolds unless they are fully planked. Keep both feet on the decking and do not sit or climb on the guardrails.
20. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the mid-rail and the toe board or planking.
21. Both hands shall be free of tools/materials when ascending or descending a scaffold. Employees shall not propel themselves while working on mobile scaffolds.
22. Scaffolds and scaffolding components shall be inspected for visible defects by a Competent Person before each work shift, and after any occurrence which could affect a scaffold's structural integrity. Any defective or unsafe part of the system will be tagged and replaced to continue the work process.
23. Eskola LLC will have each employee trained by a qualified competent person for the hazards associated with the type of scaffolding being used. The training shall include falling objects, electrical, fall protection, and load capacity. Eskola employees will be re-trained where changes at the worksite present a hazard about which the employee has not been previously trained and where changes in the types of scaffolds, fall protection, falling object, falling object protection or other equipment present a hazard about which the employee has not been previously trained. Also, if an employee shows inadequacies in their training involving scaffolds, said employee must be retrained in the above-mentioned areas.

LABOR PERSONNEL SAFETY

1. Do not start work until barricades, barrier logs, fill or other protection have been installed to isolate the work area from local traffic.
2. Reflective warning vests must be worn by traffic flagmen who are assigned to controlling traffic.
3. Do not approach any heavy equipment until the operator has seen you and has signaled to you that it is safe to approach.
4. Walk around or step over holes, rocks, roots, materials or equipment in your pathway.
5. Do not work outdoors during lightning storms.
6. Drink plenty of clear liquids during your breaks.
7. Take breaks in shaded areas.

General Safety Precautions

HEAVY EQUIPMENT OPERATION

1. Only Authorized Qualified Operator may operate a Heavy Equipment. **NO EXEMPTIONS!!!**
2. No passengers are permitted on heavy equipment.
3. Keep windows and windshield clean.
4. Do not use heavy equipment if the horn or backup alarm does not work.
5. Turn off the engine before leaving heavy equipment unattended.
6. Do not jump off of or onto any heavy equipment.
7. Keep heavy equipment in gear when going downhill. Do not use neutral.
8. Display the "Slow Moving Vehicle" sign when operating heavy equipment on roads.
9. Do not operate backhoes, power shovels, and other heavy equipment within two (2) feet from the edge of an excavation.
10. Do not use a bucket or other attachments for a staging or temporary platform for workers.
11. Do not operate a backhoe over or across underground utilities that are marked by paint, flagged or staked.
12. Set swing brake of a backhoe bucket arm when moving the vehicle to and from the digging site.
13. Stay in the compartment during operation of heavy equipment. Do not reach in or attempt to operate controls from outside the piece of equipment.

CRANE SAFETY

1. Only Authorized Qualified Operator may operate a Crane. **NO EXEMPTIONS!!!**
2. Do not use load hooks that are cracked, bent or broken.
3. Do not use cranes that do not have their rated load capacity indicated on each side of the crane or on its load block.
4. Passengers are not permitted to ride inside the operator's cab of a truck crane.
5. Keep crane windows clean. Do not use a crane if its windows are broken.
6. Do not exceed the rated load capacity as specified by the manufacturer.
7. Do not operate a crane on soft ground without using cribbing and mats.
8. Fully extend outriggers before attempting a lift.
9. Stay outside the barricades of the posted swing radius.
10. Do not perform any crane refits or modifications without the manufacturer's approval.
11. Do not leave the crane unattended with a hoisted load.
12. Do not hoist loads over people.
13. Do not drive on the road shoulders.
14. Wear a high visibility vest when working as a signalman.
15. Only follow the signals of the person designated to give you signals when operating a crane.
16. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.

MACHINE SAFETY

1. Do not remove, alter or bypass any safety guards or devices when operating mechanical equipment such as mechanical power presses, press brakes, metal-working lathes, radial arm saws, drills, horizontal mill, punch press, or when bending or forming materials.
2. Replace guards, before starting the machine, after making adjustments or repairing the machine.
3. Do not try to stop a work-piece as it goes through any machine. If the machine becomes jammed, disconnect the power before clearing the jam.
4. Do not wear loose clothing, jewelry or ties in the machine shop.
5. Read and obey safety warnings posted on or near any machinery.
6. Long hair must be contained under a hat or hair net, regardless of gender

General Safety Precautions

SLING SAFETY

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not shorten slings by using make-shift devices such as knots or bolts.
3. Do not use a kinked chain.
4. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
5. Wear work gloves when handling rough, sharp-edged or abrasive chains, cables, ropes or slings.
6. Do not alter or remove the safety latch on hooks. Do not use a hook that does not have a safety latch, or if the safety latch is bent.
7. Do not place your hands between the sling and its load when the sling is being tightened around the load.
8. Lift the load from the center of hooks, not from the point.

POWER SAWS

1. Wear the prescribed personal protective equipment such as goggles, gloves, dust masks and hearing protection when operating the power saw.
2. Turn the saw power switch "Off" before making measurements, adjustments or repairs.
3. Keep your hands away from the exposed blade.
4. Operate the saw at a full cutting speed, with a sharp blade, to prevent kickbacks.
5. If the saw becomes jammed, turn the power switch of the saw to "Off" before pulling out the incomplete cut.
6. Do not alter the anti-kickback device or blade guard.

ABRASIVE CUT-OFF SAWS AND CHOP SAWS

1. Do not use the saw if the lower portion of the blade hood is not adjusting itself to the thickness of the material being cut as the blade passes through the material.
2. Allow the saw to return to its stored position before removing the cut material from the table.
3. Lay the material squarely and solidly down before sawing it.
4. Use a clamp to secure cylindrical materials to the saw "table" before cutting.
5. Do not use the abrasive cut off saw for grinding or sharpening any tool or material.

DRILL PRESS

1. Replace the belt and pulley guard before starting the press and after making adjustments or repairs to the press.
2. Make sure the press table is locked into place and the depth adjustment is set before turning on the power.
3. Remove the chuck key before turning on the power.
4. Clamp small pieces of stock that are to be drilled in the drill vise or to the workbench.
5. Do not wear rings, wristwatches or gloves when working with the drill press.
6. Turn off the power and wait until the machine has come to a complete stop before reaching for the piece of stock.
7. Keep the drill press and the area around the drill press clear of metal cuttings and lubricants.
8. When adjusting the chuck size, do not turn on the power to the drill press while holding the chuck with your hand.

General Safety Precautions

GRINDERS & GRINDING WHEELS

1. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage by conducting a "ring test." Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ring sound, do not use the wheel.
2. Do not use a grinding wheel that has chips, cracks or grooves.
3. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
4. Adjust the tongue guard so that it is no more than 1/4 inch from the grinding wheel.
5. Adjust the tool rest so that it is no more than 1/8 inch from the grinding wheel.
6. Do not use a bench grinder if it is not firmly anchored to the work-bench or other secure platforms.
7. Do not install a grinding wheel whose labeled RPM is lower than the rated speed of the grinder.
8. Stand to one side of the plane of a rotating grinding wheel during the first few seconds of operation.
9. Grind on the side of the wheel only when it is made for side grinding.
10. Turn the grinder "off" when you have finished working with it and remain at the machine until it has completely stopped turning.

PORTABLE GRINDERS

1. Do not use a portable hand-held grinder with a wheel diameter larger than 2" unless the grinder has a positive action switch to ensure the switch cannot be locked in the on position.
2. Do not use a portable grinder if the grinding wheel guard is missing.
3. Do not clamp a portable grinder in a vice to use it as a bench grinder.

PNEUMATIC & HYDRAULIC TOOLS

1. Do not point a charged compressed air hose at bystanders or use it to clean your clothing.
2. Lock and/or tag tools "Out of Service" to prevent usage of the defective or damaged tool.
3. Do not use tools that have handles with burrs or cracks.
4. Do not use compressors if their belt guards are missing. Replace the belt guards before using the compressor.
5. Turn the power switch of the tool to "Off" and let it come to a complete stop before leaving it unattended.
6. Disconnect the tool from the airline before making any adjustments or repairs to the tool.

HAND TOOL SAFETY

1. Do not continue to work if your safety glasses become fog. Stop work and clean the glasses until the lenses are clear and defogged.
2. Tag worn, damaged or defective tools "Out of Service" and do not use them.
3. Do not use a tool if the handle surface has splinters, burrs, cracks or splits.
4. Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
5. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
6. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, chisels or files in your pocket unless the tool or your pocket is sheathed.
7. Do not perform "make-shift" repairs to tools.
8. Do not throw tools from one location to another or from one employee to another.
9. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your hand or clothing when climbing.

General Safety Precautions

ELECTRICAL POWERED TOOLS

1. Do not use power equipment or tools on which you have not been trained.
2. Keep power cords away from the path of drills, saws, vacuum cleaners, floor polishers, mowers, knives, and grinders.
3. Do not use cords that have splices, exposed wires, or cracked or frayed ends.
4. Do not carry plugged in equipment or tools with your finger on the switch.
5. Do not carry equipment or tools by the cord.
6. Disconnect the tool from the outlet by pulling on the plug, not the cord.
7. Turn the tool off before plugging or unplugging it.
8. Do not leave tools that are "On" unattended.
9. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
10. Do not operate spark inducing tools such as grinders near containers labeled "Flammable."
11. Turn off the electrical tool and unplug it from the outlet before attempting repairs or service work. Tag the tool "Out of Service."
12. Do not use extension cords or other three-pronged power cords that have a missing prong.
13. Do not use an adapter such as a cheater plug that eliminates the ground.
14. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
15. Do not drive over, drag, step on or place objects on a cord.
16. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
17. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
18. Do not operate a power hand tool or portable appliance while holding a part of the metal casing or while holding the extension cord in your hand. Hold all portable power tools by the plastic hand grips or other nonconductive areas designed for gripping purposes.

HAND TRUCK SAFETY

1. When loading hand trucks, keep your feet clear of the wheels.
2. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.
3. Place the load so that it will not slip, shift or fall. Use the straps, if they are provided, to secure the load.
4. For extremely bulky or pressurized items, such as gas cylinders, strap or chain the items to the hand truck.
5. Tip the load slightly forward so that the tongue of the hand truck goes under the load.
6. Push the tongue of the hand truck all the way under the load that is to be moved.
7. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
8. Push the load so that the weight will be carried by the axle and not the handles.
9. If your view is obstructed, ask a spotter to assist in guiding the load.
10. Do not walk backward with the hand truck, unless going up ramps.
11. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
12. Move hand trucks at a walking pace.
13. Store hand trucks with the tongue under a pallet, shelf, or table.

General Safety Precautions

WELDING/CUTTING/BRAZING

1. Only Authorized Qualified Welders may weld. **NO EXEMPTIONS!!!**
2. Obey all signs posted in the welding area.
3. Do not leave oily rags, paper such as blueprints or other combustible materials in the welding, cutting or brazing area.
4. Do not perform "hot work," such as welding, metal grinding or other spark-producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."
5. Use the red hose for gas fuel and the green hose for oxygen.
6. Do not use worn, burned or cracked hoses.
7. Do not use oil, grease or other lubricants on the regulator.
8. "Blow Out" hoses before attaching the torch.
9. Ignite torches with friction lighters only. Do not use a cigarette lighter.
10. Do not change electrodes with bare hands; use dry rubber gloves.
11. Bleed oxygen and fuel lines at the end of the work-shift.
12. Do not wear contact lenses when welding.
13. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long sleeve shirt, long pants, and an apron.
14. Wear clothing made of cotton, wool, or non-synthetic fibers. Wear long sleeve shirts, long pants, boots, and gloves.
15. Use the welding screen to shield other employees from flying slag and intense light.
16. Before welding, the floor fan behind you to keep welding fumes away from your face.
17. Do not use a torch on any container that is labeled "Flammable" or "Combustible."

COMPRESSED GAS CYLINDERS – STORAGE & HANDLING

1. Do not handle oxygen cylinders if your gloves are greasy or oily.
2. Store all cylinders in the upright position.
3. Place valve protection caps on gas cylinders that are in storage or not in use.
4. Do not lift cylinders by the valve protection cap.
5. Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled "Corrosive."
6. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.
7. Do not store oxygen cylinders near fuel gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.
8. If a cylinder is leaking around a valve or a fuse plug, move it to an outside area away from where work is performed and tag it to indicate the defect.

General Safety Precautions

HEAT-RELATED ILLNESSES

1. Wear loose, light-colored clothing and a hat.
2. Adapt to working in hot conditions gradually, avoid over-exerting yourself during peak temperature periods.
3. Drink water frequently—at least eight ounces every 20 to 30 minutes. Stay away from liquids containing caffeine, as they tend to increase urination, which causes rapid depletion of body liquids.
4. Watch for the following signs and symptoms of heat-related illnesses:
 - a. *Heat Cramps* – severe muscle spasms in the back, stomach, arms, and legs, which are attributed to the loss of body salt and water during periods of heavy perspiration.
 - b. *Heat Exhaustion* – heavy sweating, cool or pale skin, nausea, headache, weakness, vomiting, and fast pulse.
 - c. *Heat Stroke* – high body temperature, minimal sweating, red and dry skin, rapid breathing and pulse, headache, nausea, vomiting, diarrhea, seizures, confusion or unconsciousness.
5. Treat heat illness as soon as possible by doing the following: Heat Cramps – move to a cooler area and drink approximately six ounces of water every 15 minutes. Follow-up with a medical examination. Heat Exhaustion – move to a cooler area and lie down with your legs slightly elevated. Cool your body by fanning and applying cool, wet towels and drink approximately six ounces of water every 15 minutes. Follow-up with a medical examination. Heat Stroke – Call 9-1-1 immediately. Move to a cooler area, remove your outer clothing, immerse yourself in cool water or apply cool, wet towels or cloths to the body. Do NOT drink liquids, and wait for emergency personnel to arrive.

COLD WEATHER ILLNESSES

1. Exposed skin freezes within one minute at -20°F when the wind speed is five miles per hour (mph) and will freeze at 10°F if the wind speed is 20 mph. When skin or clothing is wet, injury or illness can occur in temperatures above 10° F, and even above freezing (32° F). When the body is unable to warm itself, hypothermia and frostbite can set in, resulting in permanent tissue damage and even death.
2. Watch for the following signs of cold-related illnesses:
 - a. Uncontrollable shivering
 - b. Slurred speech
 - c. Clumsy movements
 - d. Fatigue
 - e. Confused behavior
3. Layer clothing to keep warm enough to be safe, but cool enough to avoid perspiring excessively.
 - a. Inner layer – synthetic weave to keep perspiration away from the body.
 - b. Middle layer – wool or synthetic fabric to absorb sweat and retain body heat.
 - c. Outer layer – material designed to break the wind and allow for ventilation.
4. Wear a hat to avoid losing almost 40 percent of your body heat.
5. Place heat packets in gloves, vests, boots, and hats to add heat to the body.
6. Watch out for the effects of cold temperatures on common body functions such as:
 - a. Reduced dexterity and hand usage
 - b. Cold tool handles reducing your grip force
 - c. The skin's reduced ability to feel pain in cold temperatures
 - d. Reduced muscle power and time to exhaustion

OFFICE SAFETY

OFFICE SAFETY

Some rules and regulations pertaining to safety in the office are as follows:

1. If it is necessary to move office equipment or furniture, ask for help.
2. Do not use razor blades for cutting paper.
3. Do not use pins to fasten papers.
4. Wrap broken glass and other sharp objects in heavy paper, mark "broken glass" and place beside – not in – the wastebasket.
5. Approach and open doors with caution to avoid striking someone with the door.
6. Do not run.
7. Stay to the right in corridors and corners.
8. Keep window sills clear.
9. Use handrail when ascending and descending stairs.
10. Keep stairways clean, clear and well-lighted.
11. Do not engage in horseplay.
12. Keep material off radiators, especially paper.
13. Guard office machines at all times. Do not permit unskilled persons to operate or tamper with any office machine.
14. Never clean or adjust an office machine while in motion.
15. Ensure that electrical extension cords are in good condition and are secured so that they will not get underfoot.
16. Do not overload electrical circuits.
17. Distribute weight in file cabinets to prevent top-heavy condition.
18. Open only one file drawer at a time, and close after use.
19. Empty top drawers of file cabinets first.
20. Load heavier cabinet drawers from the bottom upwards.
21. Push files and desk drawers back into place before leaving files.
22. Ensure that guards are in place on paper cutters.
23. Remove sharp burrs from any machines, cabinets, stands or furniture.

Disciplinary Program

Eskola LLC's disciplinary policy for minor behavior problems, (i.e. absenteeism, tardiness, safety violations) is as follows:

- 1. Verbal warning**
- 2. Written warning**
- 3. Termination**

Disciplinary Action for Gross Misconduct will be termination. All areas of gross misconduct cannot be listed in this policy, but some examples are as follows:

- Theft**
- Violation of safety rules that puts the employee or their co-workers in serious danger such as Fall Protection.**
- Deliberate damage to or misuse of property belonging to Eskola LLC and/or its parent.**
- Fraud, falsifying records**
- Working/driving under the influence of alcohol or illegal drugs, or legal drugs that are known to cause impairment**
- Fighting or physical assault**
- Threatening behavior**
- Insubordination**
- Conduct endangering any person**
- Gross negligence causing damage, loss or injury**
- Breach of data protection, e.g. unauthorized access to a computer or manual records Harassment or bullying or any type**

The Eskola Discipline Program will be enforced by each Supervisor with the input of the Project Manager and Safety Manager. Failure from Supervisors or Project Managers to follow with this requirement will lead to a written warning and termination.

These actions will only be taken after a physical inspection of the work area and talking to any witnesses involved.

Evaluation of Safety and Health Program Effectiveness

To ensure our Safety and Health Program is effective, Eskola LLC will conduct random and weekly onsite safety inspections. This safety inspection will be conducted by the Safety Manager and the Onsite Supervisor or Foreman. All inspection must be recorded and document for that reason, Eskola LLC uses a digital inspection application (iauditor). If a hazardous condition is found, the Onsite Supervisor or the Safety Manager will **STOP** work and take the proper corrective actions to eliminate or control the hazard immediately. **If the hazard can't be eliminated or control, then the affected employees will be moved to another area where no hazards are present until the existing hazard condition is eliminated or control.** If an unsafe work practice or safety violation from an employee is observed, then the Safety Manager will take disciplinary actions depending on the scale of the violation. After the inspection is done, the Onsite Supervisor and Safety Manager will review, document, take pictures if required, and signed the report. Once the report is signed a digital copy will be shared with the Project Managers, Operations Manager, Company Owner/President, and the Client.

Eskola LLC will also conduct surveys to employees to gain some feedback and suggestions to improve or grade our Safety and Health Program. The employee that makes a suggestion that can improve the Safety and Health Program will be rewarded.

Eskola LLC Safety Manager will review this Safety and Health Program at least once a year and when the law or regulations have changed.

Employee Acknowledgement Form

Eskola LLC is firmly committed to your safety. We will do everything possible to prevent workplace accidents and are committed to providing a safe working environment for you and all employees. We value you not only as an employee but also as a human being critical to the success of your family, the local community, and Eskola LLC. You are encouraged to report any unsafe work practices or safety hazards encountered on the job. All accidents/incidents (no matter how slight) are to be immediately reported to the supervisor on duty.

A key factor in implementing this policy will be the strict compliance to all applicable federal, state, local, and Eskola LLC policies and procedures. Failure to comply with these policies may result in disciplinary actions. Respecting this, Eskola LLC will make every reasonable effort to provide a safe and healthful workplace that is free from any recognized or known potential hazards. Additionally, Eskola LLC subscribes to these principles:

1. All accidents are preventable through the implementation of effective Safety and Health Control policies and programs.
2. Safety and Health controls are a major part of our work every day.
3. Accident prevention is good business. It minimizes human suffering, promotes better working conditions for everyone, holds Eskola LLC in higher regard with customers, and increases productivity. This is why Eskola LLC will comply with all safety and health regulations which apply to the course and scope of operations.
4. Management is responsible for providing the safest possible workplace for Employees. Consequently, management of Eskola LLC is committed to allocating and providing all of the resources needed to promote and effectively implement this safety policy.
5. Employees are responsible for following safe work practices, company rules, and for preventing accidents and injuries. Management will establish lines of communication to solicit and receive comments, information, suggestions, and assistance from employees where safety and health are concerned.
6. Management and supervisors of Eskola LLC will set an exemplary example with good attitudes and a strong commitment to safety and health in the workplace. Toward this end, management must monitor the company's safety and health performance, working environment, and conditions to ensure that program objectives are achieved.
7. Our safety program applies to all employees and persons affected or associated in any way by the scope of this business. Everyone's goal must be to constantly improve safety awareness and to prevent accidents and injuries.

Everyone at Eskola LLC must be involved and committed to safety. This must be a team effort. Together, we can prevent accidents and injuries and keep each other safe and healthy in the work that provides our livelihood.

By signing this document, I confirm the receipt of Eskola LLC' employee safety handbook. I have read and understood all policies, programs, and actions as described, and agree to comply with these set policies.

Employee Signature

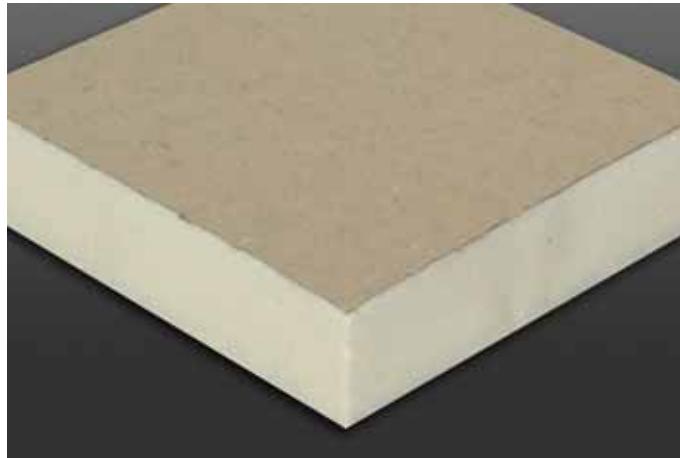
Date

Witness Signature

Date

InsulBase[®] NH POLYISO

Insulation



Overview

InsulBase NH Polyiso is an LBC “Red List Free” rigid roof insulation panel composed of a closed-cell polyisocyanurate foam core bonded on each side to glass-reinforced felt (GRF). InsulBase NH contains zero halogenated flame retardants.

Features and Benefits

- » Living Building Challenge “Red List Free” — Declare Label
- » Contains zero halogenated flame retardants
- » InsulBase NH polyiso insulation provides the highest R-value per inch of commercially available insulation products
- » Environmentally friendly construction with 0% ozone-depleting components and CFC free
- » Approved for direct application to steel decks

Panel Characteristics

- » Available in 4' x 4' (1220 mm x 1220 mm) and 4' x 8' (1220 mm x 2440 mm) panels in thickness of ½" (13 mm) to 4.5" (115 mm)



Installation

Ballasted Single-Ply Systems

Each InsulBase NH panel is loosely laid on the roof deck. Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications.

Mechanically Attached Single-Ply Systems

InsulBase NH panels must be secured to the roof deck with fasteners and plates (appropriate to the deck type). Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications.

Fully Adhered Single-Ply Systems

InsulBase NH panels must be secured to the roof deck with fasteners and plates (appropriate to deck type). Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications.

InsulBase NH 4' x 8' panels can be secured to the roof deck with Carlisle's Flexible FAST™ Adhesive, either full coverage or bead spacing.

InsulBase NH 4' x 4' panels may be adhered to prepared concrete deck with a full mopping of Type III or IV asphalt.

Review Carlisle specifications and details for complete installation information.

InsulBase NH POLYISO

Insulation

InsulBase NH Polyiso Thermal Values

Thickness (inches)	Thickness (MM)	LTTR R-value	Flute Spanability
0.50	13	2.8	2 $\frac{5}{8}$ "
1.00	25	5.7	2 $\frac{5}{8}$ "
1.50	38	8.6	4 $\frac{3}{8}$ "
2.00	51	11.4	4 $\frac{3}{8}$ "
2.50	64	14.4	4 $\frac{3}{8}$ "
3.00	76	17.4	4 $\frac{3}{8}$ "
3.50	89	20.5	4 $\frac{3}{8}$ "
4.00	102	23.6	4 $\frac{3}{8}$ "
4.50	114	26.8	4 $\frac{3}{8}$ "

Typical Properties and Characteristics (ASTM C1289)

Physical Property	Test Method	Value
Compressive Strength	ASTM D1621	20 psi* minimum (138 kPa, Grade 2)
Dimensional Stability	ASTM D2126	2% linear change (7 days)
Moisture Vapor Permeance	ASTM E96	<1 perm (57.5 ng/(Pa•s•m ²))
Water Absorption	C1763	<1% volume

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

* Polyiso Foam Core only



Foamed plastic as roof deck construction material with resistance to an internal fire exposure only for use in construction no.(s) 120 and 123. See UL Directory of Products Certified for Canada and UL Roofing Materials and Systems Directory. 99DL.



Codes and Compliances

- » ASTM C1289, Type II, Class 1, Grade 2 (20 psi), Grade 3 (25 psi)
- » International Building Code (IBC) Section 2603
- » Constructions requiring FM Class 1 and UL Class A ratings
- » UL Standard 790, 263 and 1256: Component of Class A Roof Systems (refer to UL Roof Materials' system directory)
- » FM® Standards 4450/4470: Class 1 approval for steel roof-deck constructions (refer to FM RoofNav™)
- » California Code of Regulations, Title 24, Insulation Quality Standard License #TI-1418
- » Third-party certification with the PIMA Quality Mark for Long-Term Thermal Resistance (LTTR) values
- » CAN/ULC 5704, Type 2 & 3, Class 2

Precautions

Insulation must be protected from open flame and kept dry at all times. Install only as much insulation as can be covered the same day by completed roof-covering material. Protect installed product from excessive foot traffic. Carlisle will not be responsible for specific building and roof design by others, for deficiencies in construction or workmanship, for dangerous conditions on the job site or for improper storage and handling. Technical specifications shown in this literature are intended to be used as general guidelines only and are subject to change without notice. Call Carlisle for more specific details, or refer to PIMA Technical Bulletin No. 109: Storage & Handling Recommendations for Polyiso Roof Insulation.

Section 1. Product and Company Information

Product Name **DuraLink 35**
 CHEM LINK INC.
 353 E. Lyons Street
 Schoolcraft, MI 49087, USA
 Tel: 269-679-4440
 Fax: 269-679-4448

EMERGENCY CONTACTS

Call Chemtrec: USA: 1-800-424-9300
 International: (703) 527-3887
 Product Use: Sealant
 Chemical Family: Mixture
 SDS Prepared: 19-Feb-15
 SDS Prepared by: CHEM LINK Product Safety Group

Section 2. Hazards Identification

Hazardous classification: Irritant Category 2

Signal Words: **Warning**

Hazardous Statements:

- H315 Causes skin Irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.

Precautionary Statements:

- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes.
- + P338 Remove contact lenses, if present and easy to do. Continue rinsing.
- P501 Dispose of contents/container in accordance with local regulation.

R-phrases:

- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitization by skin contact.

S-phrases:

- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S39 Wear eye/face protection.

Carcinogenicity: This product contains no ingredient listed as a carcinogen on California Proposition 65 list.

Label: Pictogram**HMIG**

<u>Health</u>	1
<u>Flammability</u>	0
<u>Reactivity</u>	0

Section 3. Composition / Information on Ingredients**HAZARDOUS INGREDIENTS**

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Amino Silane	1760-24-3	1-3%

Section 4. First Aid Measures

- First Aid For Skin: Clean product from affected area with Ethyl alcohol, then wash with soap and water.
- First Aid For Eyes: Flush with large amounts of water for at least 15 minutes. Consult a Physician if ill effects or irritation occurs.
- First Aid for Inhalation: An unlikely route of entry. Remove to fresh air. Consult a physician.
- First Aid For Ingestion: An unlikely route of entry. Consult a physician.

Section 5. Fire Fighting Measures**DuraLink 35**

Special Fire Fighting Instructions:	None. Full emergency equipment with self –contained breathing apparatus and full protective clothing should be worn by firefighters.
Extinguishing Media:	Water, CO ₂ , Dry Chemical, Foam.
Unusual Fire and Explosion Hazards:	None.
Flashpoint:	Not applicable.
Upper Flammable Limit:	Not applicable.
Lower Flammable Limit:	Not applicable.
Autoignition temperature:	Not applicable.
Sensitivity to Impact:	Not applicable.
Sensitivity to Static Discharge:	Not applicable.
Hazardous Combustion Products:	Thermal decomposition may produce toxic fumes of Carbon Monoxide, Carbon dioxide, Sulfur oxides and Hydrogen sulfide.

Section 6. Accidental release measures

Handling Precautions:	Use personal protection recommended in section 8. Avoid eye, skin and clothing contact.
Cleanup:	Collect spill with absorbent material such as cardboard, allow to cure and place into a container approved for waste disposal.
Regulatory Requirements:	Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7. Handling and Storage

Handling Precautions:	Use personal protection recommended in section 8. Avoid eye, skin and clothing contact.
Prevention of fires and explosions:	Product is not considered flammable under normal conditions, and product is not considered explosive.
Storage Requirements:	Store in a cool dry area (this product polymerizes when in contact with moisture.)

Section 8. Exposure Controls / Personal Protection

Hand protection:	Wear impervious gloves such as vinyl to minimize contact with skin.
Eye protection:	Wear safety glasses or goggles to avoid eye contact.
Skin protection:	Wear impervious gloves such as vinyl to minimize contact with skin.
Environmental exposure control:	No specific controls are needed.

Section 9. Physical and Chemical Properties

Physical State:	Water Solubility: Insoluble	% Volatile: 1.50%
Appearance and Odor:	Paste, mild mint scent	VOC: 21.51g/l
Freezing/Melting Point(°C):	NA	Flash Point: NA °C (Tag closed cup)
Odor Threshold (ppm):	NA	Autoignition Temperature: NA
Vapor Pressure:	<1	pH: NA
Vapor Density (Air=1):	>1	Flash Point Method: Based on FP of the most volatile component.
Density:	12 lbs./gal. (calculated)	LEL: NA UEL: NA
Specific Gravity:	1.44	

Section 10. Stability and Reactivity

Stability :	Considered Stable.		
Conditions to Avoid :	None known.	Hazardous	Thermal decomposition may produce toxic fumes of
Incompatible Materials :	None known.	Decomposition Products:	CO and /or CO2.

Section 11. Toxicological Information

Information below is based on Amino Silane. (Refer to sections 2.and 3.)

Oral – Result:	LD50 > 2,000 mg/kg. Remark: Very low order of toxicity.
Skin Absorption – Result:	LD50 > 2,000 mg/kg. Remark: Very low order of toxicity.
Skin Direct contact – Result:	Slight irritation.
Eye Direct contact – Result:	Severe irritation. Remark: Causes corneal injury.
Inhalation – Result:	LC50 Not acutely Toxic.
Exposure Limits –	Not applicable.
Sensitization –	No.
Reproductive Toxicity –	No.
Mutagenicity –	No.
Teratogenicity –	No.
Synergistic Products –	None.

Section 12. Ecological Information

No known applicable information.

Section 13. Disposal Considerations

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. This product becomes a firm synthetic rubber when cured. Please allow to cure before disposal.

Section 14. Transport Information

Special Shipping Information	None.
DOT	Not regulated.
TDG	Not available.
PIN	Not available

Section 15. Regulatory Information

Rotterdam Convention (PIC) Annex III: listed (Tributyl tin compounds (impurities) <2ppm)

US Regulatory Information

OSHA 29 CFR 1910-1200 – Irritant.

TSCA – All components of this product are listed on TSCA Inventory.

CERCLA Reportable Quantity – Not applicable.

SARA Title III:

Section 302 Extremely Hazardous Substances – None.

Section 304 – Not applicable.

Section 311/312 – Immediate (acute) health hazard.

Section 313 – None.

RCRA – Refer to section 13.

California Proposition 65 Carcinogens: This product does not contain any chemicals known by the State of California to cause cancer.

California Proposition 65 Reproductive Toxins: This product does not contain any chemicals known by the State of California to cause reproductive harm.

WHIMS Classification – D2B**Section 16. Other Information**

Prepared in accordance with 29 CFR 1910.1200

This Product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR.

To the best of our knowledge, the information contained herein is accurate. However CHEM LINK INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be handled with care. Although we have described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist.



Weatherking ®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 05/13/2015 Date of issue: 05/08/2018

Version: 2.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Weatherking ®

Product Code: 7336

Intended Use of the Product

Cold process, asphalt modified, interply adhesive. For professional use only.

Name, Address, and Telephone of the Responsible Party

Manufacturer

The Garland Company, Inc.

3800 East 91st Street

Cleveland, Ohio 44105-2197

T-800-762-8225

F-216-641-0633

www.garlandco.com

Supplier

The Garland Company, Inc.

3800 East 91st Street

Cleveland, Ohio 44105-2197

T-800-762-8225

F-216-641-0633

The Garland Company, Inc.

209 Carrier Drive

Toronto, Ontario M9W 5Y8

T-416-747-7995 800-387-5991

F-416-747-1980

Emergency Telephone Number

Emergency number : 1-800-762-8225 24 hours

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Flam. Liq. 3 H226

Eye Irrit. 2A H319

Muta. 1B H340

Carc. 1A H350

STOT RE 2 H373

Asp. Tox. 1 H304

Aquatic Acute 1 H400

Aquatic Chronic 2 H411

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

- : H226 - Flammable liquid and vapor
- : H304 - May be fatal if swallowed and enters airways
- : H319 - Causes serious eye irritation
- : H340 - May cause genetic defects
- : H350 - May cause cancer (Inhalation)
- : H373 - May cause damage to organs through prolonged or repeated exposure
- : H400 - Very toxic to aquatic life
- : H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements (GHS-US)

- : P201 - Obtain special instructions before use
- : P202 - Do not handle until all safety precautions have been read and understood
- : P210 - Keep away from heat, open flames, sparks. - No smoking
- : P233 - Keep container tightly closed
- : P240 - Ground/bond container and receiving equipment
- : P241 - Use explosion-proof electrical, lighting, ventilating equipment
- : P242 - Use only non-sparking tools

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

P243 - Take precautionary measures against static discharge
P260 - Do not breathe mist/vapors/spray
P264 – Wash hands, forearms, and exposed areas thoroughly after handling
P273 - Avoid release to the environment
P280 - Wear eye protection, protective gloves, protective clothing
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P314 - Get medical advice and attention if you feel unwell
P331 - If swallowed, do NOT induce vomiting
P337+P313 - If eye irritation persists: Get medical advice/attention
P370+P378 - In case of fire: Use appropriate media to extinguish
P391 - Collect spillage
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container according to local, regional, national, and international regulations

Other Hazards

Other Hazards Not Contributing to the Classification: Contains a small amount of hydrogen sulfide. Hydrogen sulfide is a fatal and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Heating of this product and storage under elevated temperatures or over long periods of time may release higher amounts of hydrogen sulfide. Hydrogen sulfide is also an asphyxiant.

Unknown Acute Toxicity (GHS-US)

<2% of the mixture consists of ingredients of unknown acute toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Asphalt	(CAS No) 8052-42-4	30 - 60	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351
Stoddard solvent	(CAS No) 8052-41-3	10 - 30	Flam. Liq. 3, H226 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Hydrogen sulfide	(CAS No) 7783-06-4	1 - 5	Flam. Gas 1, H220 Liquefied gas, H280 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 1, H370 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Xylenes (o-, m-, p- isomers)	(CAS No) 1330-20-7	1 - 4	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

			Asp. Tox. 1, H304 Aquatic Acute 2, H401
Attapulgite	(CAS No) 12174-11-7	1 - 4	Carc. 2, H351
Cumene	(CAS No) 98-82-8	1 - 2	Flam. Liq. 3, H226 Carc. 2, H351 STOT SE 3, H335 STOT SE 1, H370 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Solvent naphtha, petroleum, light aromatic	(CAS No) 64742-95-6	1 - 2	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Benzene, 1,2,4-trimethyl-	(CAS No) 95-63-6	1 - 2	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
1,3,5-Trimethylbenzene	(CAS No) 108-67-8	1 - 2	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Cellulose	(CAS No) 9004-34-6	0.5 - 1.5	Comb. Dust
Quartz	(CAS No) 14808-60-7	0.1 - 1	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Alcohols, C9-11-iso-, C10-rich	(CAS No) 68526-85-2	0.01	Aquatic Acute 1, H400

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). If exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. If exposed or concerned: Get medical advice/attention.

Skin Contact: Remove contaminated clothing. Rinse affected area with water for at least 5 minutes.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Weatherking ®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

Most Important Symptoms and Effects Both Acute and Delayed

General: May be fatal if swallowed and enters airways. Causes serious eye irritation. Causes skin irritation.

Inhalation: May cause cancer by inhalation.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: May be fatal if swallowed and enters airways.

Chronic Symptoms: May cause genetic defects. May cause cancer.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use water jet. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Flammable liquid and vapor.

Explosion Hazard: May form flammable/explosive vapor-air mixture.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Not available

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures. Corrosive vapors.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Handle in accordance with good industrial hygiene and safety practice. Do not allow product to spread into the environment.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: Collect spillage. Clear up spills immediately and dispose of waste safely.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

Weatherking ®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable. Contains Sulfur, may release small amounts of hydrogen sulfide. Hydrogen sulfide is a highly flammable, explosive gas under certain conditions, is a toxic gas, and may be fatal. Gas can accumulate in the headspace of closed containers, use caution when opening sealed containers. Heating the product or containers can cause thermal decomposition of the product and release hydrogen sulfide.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, ventilating equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store locked up.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s) Adhesive

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Asphalt (8052-42-4)

USA ACGIH	ACGIH TWA (mg/m³)	0.5 mg/m³
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	5 mg/m³

Hydrogen sulfide (7783-06-4)

USA ACGIH	ACGIH TWA (ppm)	1 ppm
USA ACGIH	ACGIH STEL (ppm)	5 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	15 mg/m³
USA NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm
USA IDLH	US IDLH (ppm)	100 ppm

Benzene, 1,2,4-trimethyl- (95-63-6)

USA NIOSH	NIOSH REL (TWA) (mg/m³)	125 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	25 ppm

Stoddard solvent (8052-41-3)

USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	2900 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	500 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	350 mg/m³
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	1800 mg/m³
USA IDLH	US IDLH (mg/m³)	20000 mg/m³

1,3,5-Trimethylbenzene (108-67-8)

USA NIOSH	NIOSH REL (TWA) (mg/m³)	125 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	25 ppm

Xylenes (o-, m-, p-isomers) (1330-20-7)

USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	ACGIH STEL (ppm)	150 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	435 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm

Quartz (14808-60-7)

USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³
USA OSHA	OSHA PEL (STEL) (mg/m³)	250 mppcf/%SiO₂+5, 10mg/m³/%SiO₂+2
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

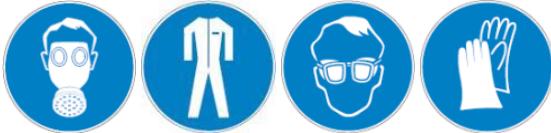
Revision Date: 05/13/2015 Date of Issue: 05/06/2018

USA IDLH	US IDLH (mg/m ³)	50 mg/m ³
Kaolin (1332-58-7)		
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
Attapulgite (12174-11-7)		
Québec	VEMP (mg/m ³)	1 fibers/cm ³
Cellulose (9004-34-6)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
Limestone (1317-65-3)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
Cumene (98-82-8)		
USA ACGIH	ACGIH TWA (ppm)	50 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	245 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	245 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	50 ppm
USA IDLH	US IDLH (ppm)	900 ppm (10% LEL)
Magnesium carbonate (546-93-0)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Take precautionary measures against static discharges. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapours may be released.

Personal Protective Equipment: On heating: wear respiratory equipment (only if workers are facing concentrations above the exposure limit). Protective clothing. Protective goggles. Gloves.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Not available

Respiratory Protection: When manufacturing or handling product in large quantities and vapors or mists may be generated, maintain airborne concentrations below recommended limits. Workplace risk assessments should be completed before specifying and implementing respirator usage. NIOSH approved respirators for protection should be used if respirators are found to be necessary.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State : Liquid

Appearance : Viscous, Black

Odor : Petroleum distillate

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

Boiling Point	:	149 - 199 °C (300.2-390.2°F)
Flash Point	:	41 °C (105.8°F) TCC
Specific Gravity	:	0.9
Solubility	:	Insoluble
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	:	Not expected to present an explosion hazard due to static discharge.
VOC	:	300 g/L

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO2). May release flammable gases. Contains a small amount of hydrogen sulfide. Hydrogen sulfide is a fatal, and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Heating of this product and storage under elevated temperatures or over long periods of time may release higher amounts of hydrogen sulfide. Hydrogen sulfide is also an asphyxiant.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: May cause genetic defects.

Carcinogenicity: May cause cancer (Inhalation).

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation: May cause cancer by inhalation.

Symptoms/Injuries After Skin Contact: Causes skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation.

Symptoms/Injuries After Ingestion: May be fatal if swallowed and enters airways.

Chronic Symptoms: May cause genetic defects. May cause cancer.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Asphalt (8052-42-4)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
Hydrogen sulfide (7783-06-4)	
LC50 Inhalation Rat (mg/l)	0.99 mg/l (Exposure time: 1 h)
Benzene, 1,2,4-trimethyl- (95-63-6)	
LD50 Oral Rat	6000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
LC50 Inhalation Rat (mg/l)	18 g/m³ (Exposure time: 4 h)

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

Stoddard solvent (8052-41-3)	
LD50 Oral Rat	> 5 g/kg Behavioral somnolence
LD50 Dermal Rabbit	> 3 mg/kg
1,3,5-Trimethylbenzene (108-67-8)	
LC50 Inhalation Rat (mg/l)	24 g/m³ (Exposure time: 4 h)
Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 Oral Rat	4300 mg/kg
LC50 Inhalation Rat (mg/l)	47635 mg/l/4h (Exposure time: 4 h)
LC50 Inhalation Rat (ppm)	6247 ppm/4h (species: Sprague-Dawley)
Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
Solvent naphtha, petroleum, light aromatic (64742-95-6)	
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat (ppm)	3400 ppm/4h
Cellulose (9004-34-6)	
LC50 Inhalation Rat (mg/l)	> 5800 mg/m³ (Exposure time: 4 h)
Alcohols, C9-11-iso-, C10-rich (68526-85-2)	
LD50 Oral Rat	> 2648 mg/kg
LD50 Dermal Rabbit	> 3.16 mg/kg
LC50 Inhalation Rat (ppm)	> 95.3 ppm
Aluminum hydroxide (Al(OH)3) (21645-51-2)	
LD50 Oral Rat	> 5000 mg/kg
Cumene (98-82-8)	
LD50 Oral Rat	2260 mg/kg
LD50 Dermal Rabbit	10000 mg/kg
LC50 Inhalation Rat (mg/l)	20 - 40 mg/l (Exposure time: 6 h)
Asphalt (8052-42-4)	
IARC Group	2B
National Toxicity Program (NTP) Status	Twelfth Report - Items under consideration.
Xylenes (o-, m-, p- isomers) (1330-20-7)	
IARC Group	3
Quartz (14808-60-7)	
IARC Group	1
National Toxicity Program (NTP) Status	Known Human Carcinogens.
Attapulgite (12174-11-7)	
IARC Group	2B, 3
Styrene-butadiene copolymer (9003-55-8)	
IARC Group	3
Cumene (98-82-8)	
IARC Group	2B
National Toxicity Program (NTP) Status	Evidence of Carcinogenicity.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Weatherking ®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

Hydrogen sulfide (7783-06-4)	
LC50 Fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC 50 Fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
Benzene, 1,2,4-trimethyl- (95-63-6)	
LC50 Fish 1	7.19 (7.19 - 8.28) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Stoddard solvent (8052-41-3)	
LC50 Fish 1	0.42 mg/l
1,3,5-Trimethylbenzene (108-67-8)	
LC50 Fish 1	3.48 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
Xylenes (o-, m-, p-isomers) (1330-20-7)	
LC50 Fish 1	3.3 mg/l
EC50 Daphnia 1	3.82 mg/l (Exposure time: 48 h - Species: water flea)
LC 50 Fish 2	2.661 (2.661 - 4.093) mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
Solvent naphtha, petroleum, light aromatic (64742-95-6)	
LC50 Fish 1	9.22 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Alcohols, C9-11-iso-, C10-rich (68526-85-2)	
LC50 Fish 1	3 mg/l
LC50 other aquatic organisms 1	2.4 mg/l Algae
EC50 Daphnia 1	4 µg/l
Cumene (98-82-8)	
LC50 Fish 1	6.04 - 6.61 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.6 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	4.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 2	7.9 - 14.1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
Persistence and Degradability	
Weatherking ®	
Persistence and Degradability	Not established. May cause long-term adverse effects in the environment.
Bioaccumulative Potential	
Weatherking ®	
Bioaccumulative Potential	Not established.
Asphalt (8052-42-4)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	> 6
Hydrogen sulfide (7783-06-4)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	0.45 (at 25 °C)
Benzene, 1,2,4-trimethyl- (95-63-6)	
Log Pow	3.63
Stoddard solvent (8052-41-3)	
Log Pow	3.16 (Octanol/water partition coefficient 3.16/7.06)
Xylenes (o-, m-, p-isomers) (1330-20-7)	
BCF fish 1	0.6 (0.6 - 15)
Log Pow	2.77 - 3.15

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

Cumene (98-82-8)

BCF fish 1	35.5
Log Pow	3.55 (at 23 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

Ecology – Waste Materials: Hazardous waste due to toxicity. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : Not Regulated

14.2 In Accordance with IMDG

Proper Shipping Name : TARS, LIQUID

Hazard Class : 3

Identification Number : UN1999

Packing Group : III

Label Codes : 3

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-E

MFAG Number : 130



14.3 In Accordance with IATA

Proper Shipping Name : TARS, LIQUID

Packing Group : III

Identification Number : UN1999

Hazard Class : 3

Label Codes : 3

ERG Code (IATA) : 3L



14.4 In Accordance with TDG

Proper Shipping Name : Not Regulated

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Asphalt (8052-42-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Hydrogen sulfide (7783-06-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 302 (Specific toxic chemical listings)

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 302 Threshold Planning Quantity (TPQ)

500

SARA Section 313 - Emission Reporting

1.0 %

Benzene, 1,2,4-trimethyl- (95-63-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 - Emission Reporting

1.0 %

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

Stoddard solvent (8052-41-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
1,3,5-Trimethylbenzene (108-67-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
1-Propanamine, 3-(isodecyloxy)-, acetate (28701-67-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Xylenes (o-, m-, p- isomers) (1330-20-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
RQ (Reportable Quantity, Section 304 of EPA's List of Lists):	100 lb
SARA Section 313 - Emission Reporting	1.0 %
Quartz (14808-60-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Solvent naphtha, petroleum, light aromatic (64742-95-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Kaolin (1332-58-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Styrene-butadiene copolymer (9003-55-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Cellulose (9004-34-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Alcohols, C9-11-iso-, C10-rich (68526-85-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Aluminum hydroxide (Al(OH)3) (21645-51-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Limestone (1317-65-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Cumene (98-82-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %
Magnesium carbonate (546-93-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
US State Regulations	
Quartz (14808-60-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Attapulgite (12174-11-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Cumene (98-82-8)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.

Weatherking ®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

California to cause cancer.

Asphalt (8052-42-4)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Hydrogen sulfide (7783-06-4)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Benzene, 1,2,4-trimethyl- (95-63-6)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Stoddard solvent (8052-41-3)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

1,3,5-Trimethylbenzene (108-67-8)

RTK - U.S. - Massachusetts - Right To Know List

Xylenes (o-, m-, p- isomers) (1330-20-7)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Quartz (14808-60-7)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Kaolin (1332-58-7)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Cellulose (9004-34-6)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Limestone (1317-65-3)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Cumene (98-82-8)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

Magnesium carbonate (546-93-0)

RTK - U.S. - Massachusetts - Right To Know List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

Canadian Regulations

Weatherking®

WHMIS Classification

Class B Division 3 - Combustible Liquid

Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Class D Division 2 Subdivision B - Toxic material causing other toxic effects



Asphalt (8052-42-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Hydrogen sulfide (7783-06-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification

Class A - Compressed Gas

Class B Division 1 - Flammable Gas

Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Benzene, 1,2,4-trimethyl- (95-63-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification

Class B Division 3 - Combustible Liquid

Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Stoddard solvent (8052-41-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification

Class B Division 3 - Combustible Liquid

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

1,3,5-Trimethylbenzene (108-67-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification

Class B Division 3 - Combustible Liquid

1-Propanamine, 3-(isodecyloxy)-, acetate (28701-67-9)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification

Class B Division 3 - Combustible Liquid

Xylenes (o-, m-, p- isomers) (1330-20-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification

Class B Division 2 - Flammable Liquid

Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification

Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Weatherking®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/13/2015 Date of Issue: 05/06/2018

Solvent naphtha, petroleum, light aromatic (64742-95-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	--

Kaolin (1332-58-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
----------------------	--

Styrene-butadiene copolymer (9003-55-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
----------------------	---

Cellulose (9004-34-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
----------------------	---

Alcohols, C9-11-iso-, C10-rich (68526-85-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
----------------------	---

Limestone (1317-65-3)

Listed on Non-Domestic Substances List (NDSL)

WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
----------------------	--

Cumene (98-82-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
----------------------	---

Magnesium carbonate (546-93-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
----------------------	---

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 05/08/2018

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

The Garland Company, Inc.

3800 East 91st Street

Cleveland, Ohio 44105-2197

T-800-762-8225

This information is based on our knowledge as of the Revision Date and is intended to describe the product only for the purposes of health, safety, and environmental requirements as of the Revision Date. It should not therefore be construed as guaranteeing any specific property of the product nor as providing any warranty, expressed or implied. The user assumes all responsibility, liability, risk of loss, damage, or expense arising out of, or in any way connected with, the handling, storage, use, or disposal of the product.

Qualitative Exposure Assessment – Multiple Hazard Form

Project Information															
<p><input type="checkbox"/> No QEA is required based upon a review of the type(s) of hazard(s) associated with the activity/task</p> <p><input checked="" type="checkbox"/> QEA could not be conducted at the time the RSS/Work Plan was reviewed/approved due to inadequate information provided by the PI, Work Planner/Package author on some or all agent(s)/hazard(s). List the agent(s) for which a QEA could not be conducted: <input type="checkbox"/> All Agents (see below) or Specific Agent(s) that could not be assessed: Heat/Cold Stress. Discuss controls incorporated into <i>Work Control</i> to assure EA is conducted in the future: Contact QHSP for further evaluation if temperature extremes arise.</p>															
Process/Job/Task:															
(SEG/SET Name) Roof Repair at Buildings 7930 and 7920's South Storage															
Work Description:															
This work plan will cover the ORNL Craft that will be needed to complete the task of the sub-contractor who will be working under the AHA ORNL Building 7930 and 7920's South Storage Room.															
Facility #: REDC															
Room/Lab/Shop #: Roofs															
Organization: NNFD															
RSS/Work Plan #: MWP059422															
Agents and Control Information															
Process/Job/Task		Rec ID	Agent	Quantity or Magnitude	¹ Potential Routes of Entry	Primary Exposure Forms	Frequency of Exposure	Duration of Exposure per Exposure Event	² Engineering and Administrative Controls	*OEL	Health Severity Rating 1-4	Exposure Rating 1-4	Certainty Rating 1-3	³ QEA Rating 1-24	⁴ Exposure Decision
1	Incidental lifting of tools and equipment	N/A	Manual Material Handling	<50 lbs	Other	Other	Variable	Variable	P, T	N/A	3	2	1	5	Acceptable (2 - 7)
2	Proximity of using power tools	N/A	Noise	<100 dBA	Other	Other	Variable	Variable	P, T	85 dBA	4	2	2	12	Uncertain (8-15)
3															
4															
5															
6															
1. Routes of entry codes: Inh – Inhalation, P – Penetration, Ing – Ingestion, S – Splash; A – Absorption 2. Engineering Control codes: GB – Glovebox, GV – General Ventilation, Hood – Other LEV Hood, I/E – Isolate or Enclose Hazard, LH - Lab Hood S – Shielding, W – Wet Methods; Administrative Control Codes: T – Training, L/P – Labeling or Postings, P – Written procedure/plan; LT – Limited Stay Time; W/R – Modified Work/Rest Cycle, BEI – Biological Monitoring, MS – Medical Surveillance;															
3. QEA Rating = (Health Severity Rating + Exposure Rating) x Certainty Rating; 4. Exposure Decision: Acceptable (2-7), Uncertain (8-15), Unacceptable (16-24)															
* Optional field															
Exposure Decision and Follow-up															
Acceptable Exposure (LOW RISK)					Uncertain and Unacceptable Exposures										
Was Agent Hazard Acceptable (Low Risk)?		If yes, describe justification for classification as acceptable			Follow-up Priority	Follow-up Schedule	Is Quantitative Monitoring Required?	Recommendations/Comments							
1	YES	Workers will apply the 30-50-30 rule when moving any tools or equipment during this evolution. Team lifting is recommended for any items 50 lbs or heavier as well as any bulky or awkward items. The elevator is to be used as much as possible to move materials to the roof; avoid using the stairwell.			_____	_____	_____								
2	NO				_____	_____	_____	NNFD personnel will not be conducting work with noise producing tools, but they may be around this activity while supervising subcontracted personnel. The first means of hazard control is to distance oneself away from the noise hazard. If this cannot be achieved workers will use hearing protection with an NRR of at least 26.							
3	___				_____	_____	_____								
4	___				_____	_____	_____								
5	___				_____	_____	_____								
6	___				_____	_____	_____								

Qualified H&S Professional:

Chad Replogle

Date: 06/13/2023

Qualitative Exposure Assessment – Multiple Hazard Form

QEA Rating Tables

Table 1: Health Severity Rating

Rating		Criteria
HSR		Effects from Over Exposure
1	Negligible	Negligible or reversible effects of little concern Note: This applies to chemical agents classified as a *Relatively Harmless Hazard.
2	Minor	Minor or reversible health concern Note: This applies to chemical agents classified as a *Slight Health Hazard. Examples for using this rating for physical agents include: heat fatigue, discomfort from repetitive stress tasks, minor skin burn not requiring medical treatment, etc.
3	Medium	Medium to severe, reversible health concern. Note: This applies to chemical agents classified as a *Moderate Health Hazard. Examples for using this rating for physical agents includes temporary threshold shift in hearing, heat exhaustion, reversible repetitive stress disorders requiring medical intervention, temporary or transient sight impairment, minor skin burns (UV or IR) requiring medical treatment, etc.
4	Major	Major or irreversible health concern. Includes unknown health effects Note: This applies to chemical agents classified as a *High Health Hazard or *Extreme Health Hazard. Examples for using this rating for physical agents include: standard threshold shift in hearing, heat stroke, permanent peripheral nerve or tendon damage, ruptured disc, permanent (total or partial) loss of sight, formation of cataracts, neurological effects, sterility, etc.

*From the [Hazard Classification Guide](#), Appendix C, of ORNL Chemical Hygiene Plan

Table 2: Exposure Rating

Rating		Criteria
1	Negligible/Remote	<ul style="list-style-type: none"> • Little to no exceedance of 10% of the OEL (i.e., 95th percentile exposure estimate is virtually always less than 10% of the OEL) • No signs or symptoms of exposure • There is sufficient quantitative exposure data to judge exposure • Very little skin contact with Agent is expected • Engineering and administrative controls are in place and functioning • Only diluted chemicals are used in the process • Very low intensity of energy source • Short exposure duration • The phase of the chemical does not allow for route of exposure
2	Low/Occasional	<ul style="list-style-type: none"> • Exposure >5% exceedance of 10% of the OEL (i.e., 95th percentile exposure estimate lies between 10% of the OEL and 50% of the OEL) • No specific signs or symptoms of exposure • Qualitative monitoring indicates insignificant levels of hazard • Only incidental skin contact with Agent • There is exposure potential • Engineering and administrative controls are available but effectiveness is questionable
3	Medium/Probable	<ul style="list-style-type: none"> • Exposure >5% exceedance of 50% of the OEL (i.e., 95th percentile exposure estimate lies between 50% of the OEL and the OEL) • Air concentrations may exceed established action levels • Routine skin contact with chemical is expected
4	High/Likely	<ul style="list-style-type: none"> • Exposure >5% exceedance of the OEL (i.e., 95th percentile exposure estimate > OEL) • Signs and symptoms are evident • High generation of airborne particles or vapors

Table 3: Certainty Rating

Rating		Criteria
1	Certain	The environmental agent's exposure profile and health effects are well-understood. The industrial hygienist has high confidence in the acceptability judgment.
2	Uncertain	There is enough information to make a judgment, but further information gathering is warranted to verify the exposure assessment.
3	Highly Uncertain	The acceptability judgment was made in the absence of significant information on the exposure profile and/or health effects.

Qualitative Exposure Rating

$$\text{QEA Rating} = (\text{Health Severity Rating} + \text{Exposure Rating}) \times \text{Certainty Rating}$$