

FORM S+H 5-1 JOB HAZARD ANALYSIS

JOB HAZARD ANALYSIS		Date: 12/13/99
Contract:(If Applicable)		Phase: Roofing
Group/Contractor/ Subcontractor/Subtier: NDBI,		Location: LLNL-NIF
ACTIVITY/ OPERATIONS	UNSAFE CONDITION, ACTION or OTHER HAZARD	PREVENTATIVE or CORRECTIVE ACTION THAT WILL BE TAKEN
Roofing	Falling	Use of full body safety harnesses with two shock absorbing lanyards, guardrail systems or safety net systems are required for all work over 6' high, (100% tie off).
"	"	Standard guardrails are required for scaffolding over 6 ft. Toeboards are required if workers work or pass below. Top rails are to be placed 42"-45" inches high with a mid-rail and supporting posts every 8'ft. Examples of guardrail applications: stairs, stairwells, stairway landings, pits, porches, balconies, ramps, runways, floor openings, floor periphery (skeleton steel buildings), wall openings, landing platforms and elevator shafts, open sides of scaffolds, platforms, surfaces, catwalks, excavations, and crossovers, false work, roofs, demolition, skylights. Guardrails must be capable of supporting 200 lbs. of lateral force. Top rails, handrails, and posts must be made of 2' x 4" wood or equivalent.
"	"	Roof edge perimeters shall be guarded With 3/8 " wire rope in lieu of railings.
"	"	Fall protection equipment shall be inspected before each use.
Roofing	Falling	All safety belts, harnesses and lanyards Shall be labeled as meeting the Requirements contained in ANSI A 10. 14.-1975.

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“	“	Warning lines consisting of rope, wire or Similar material, flagged with highly visible material hanging from the warning lines at approximately 6 ft. intervals, shall be installed 34” to 45” in. above the roof surface to warn workers that they are approaching the edge of the roof.
“	“	Warning lines shall have a minimum tensile strength of 500 lbs.
“	“	The stanchions (portable or fixed) Supporting the warning lines shall be designed and installed to minimize tip over or displacement under normal working conditions.
“	“	The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.
“	“	Unless conditions prohibit, headers consisting of sheets of roofing or other roofing materials shall also be laid parallel to the edges of the roof to warn workers that they are approaching the edge of the roof.
“	“	The warning lines and headers shall be placed no closer than five (5) feet from the roof edge.
“	“	The warning lines and headers shall be erected either around the complete perimeter of the roof or only in areas of the roof where work is being accomplished, so long as the warning lines and headers are moved as the work progresses in such a manner as to provide continuous warning to workers in the work area when they approach the roof edge.

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"	"	Points of access, materials handling areas and storage areas shall be connected to the work area by a clear access path formed by two warning lines.
"	"	Workers shall be instructed to stay inside the warning lines. Except when work is must be performed at the roof edge.
"	"	Safety lines, lifelines and anchorage Points shall be capable of supporting 5400 lbs. dead weight.
"	"	All fall protection equipment, it's use and operating procedures will conform to standards in Title 8, Article 24, Safety Belts and Nets and to NIF Construction Safety Program: Appendix A, section 16 Fall Protection.
Application of Roofing	Roof Hazards	Orders contained in Article 30, Title 8, are intended to apply to workers engaged in removal and application of roof coverings which include built-up roofing of asphalt or coal-tar pitch or like materials, and flat-seam metal roofing or like materials.
"	"	Ramps and runways erected and used exclusively for the purpose of loading and unloading roofing materials at elevations above ground, or other level below, not exceeding 20 ft. in height shall be at least 40" inches in width. At those elevations exceeding 20 ft. in height, standard guardrails shall be installed and maintained on both sides of the ramp or runway.
Buckets, Kettles, Tankers	Handling	Buckets containing hot asphalt or pitch shall not be carried on ladders.
"	"	Buckets used in carrying service shall not be filled so full that the liquid surface is within four inches of the top. No other open container transporting hot asphalt or pitch shall be filled beyond 75% of capacity.

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“	“	A clear path, free of debris, shall be maintained between the kettle and the hoist or hand line.
		When moving the kettle on any public street or roadway, it shall be drained at least five inches below the splash rail.
“	“	The covers on kettles shall be constructed to close tightly.
“	“	Kettles shall be equipped with adjustable supports for use in setting kettles so that they are prevented from turning over.
“	“	The fuel tank of every kettle that depends upon the pressure of power-pumped (machine compressed) air for fuel delivery shall be equipped with a spring loaded relief valve set to pop at a pressure not to exceed the maximum safe working pressure of the vessel, but in no case greater than 60 lbs. per square inch.
“	“	A class BC fire extinguisher shall be kept near each kettle in use.

Group/Contractor/Subcontractor Concurrence

Subtier Review