

**FORM S+H 5-1 JOB HAZARD ANALYSIS**

<b>JOB HAZARD ANALYSIS</b>		Date: 5/13/1999
Contract:(If Applicable)		Phase: All Phases- <b>Steel Erection</b>
LLNL Group/Contractor/ Subcontractor/Subtier: Nielsen Dillingham Builders Inc. /		Location: LLNL- NIF
NIF Element: CSP 4		
ACTIVITY OPERATIONS	UNSAFE CONDITION, ACTION or OTHER HAZARD	PREVENTATIVE or CORRECTIVE ACTION THAT WILL BE TAKEN
Preconstruction	Site Hazards	A preconstruction meeting will be held prior to the erection.
Crane Operations	Operator Failure	Operator shall be trained, qualified and authorized to operate such equipment.
"	Overhead loads	M. S. S. will coordinate with NDBI on any rigging hazards, such as truck traffic and equipment on access roads.
		All crane operators within swing radius of each other will be equipped with radios to assist in the coordination of procedures.
Unload trucks	Striking workers with loose objects	Locate barrier where truck is to be unloaded prior to removing chains.
		Loosen all binders prior to removing chains (at the level to be unloaded) to ensure that the load is stable.
		Do not lift bundles by strapping
		Do not attach cables or hooks to web members of open web joists.
Staging material	Falling material	Material to be stacked safely.
		Materials are to be braced, cribbed, or tied to prevent rollover and unbinding.
Forklift use	Equipment failure	Inspect forklift prior to use each day.
		Only qualified personnel will operate forklift
Working on structural framing on elevated locations	Falling	Workers exposed to falls greater than 6' shall utilize fall protection such as a harness and lanyards. Lanyards shall be secured to members that can support a minimum of 5,000 lbs. Also beam wraps and beamers will be used.
		Perform work from scaffolds when possible.
		Workers shall straddle the member rather than walk the top flange.

		Workers shall not ride loads on the crane.
Working on structural framing on elevated locations - -continued-		Guardrails shall be installed as soon as possible around leading edges.
		Openings in floors shall be covered, secured and marked.
Setting structural members into place	Pinch points, striking worker, falling.	Connectors shall position themselves to allow mobility to avoid incoming pieces.
		Only one connector shall give signals to the crane operator and he must make sure that his partner is clear.
		Loads must have tag lines to guide load to connection point.
	Member falling	Beams shall be connected with a minimum of two bolts at each end prior to releasing hoisting line.
Bolting up connections	Falling objects	Impact wrenches shall have locking devices for retaining sockets.
		Any container shall be secured to prevent objects from falling below.
		When bolts or drift pins are driven out, they shall be prevented from falling.
Working in zoom booms	Falling	When in a zoom boom, the operator and helpers will be tied off.
Welding	Flash burns	Proper PPE and clothing shall be worn and checked regularly for damage or wear.
		Welding screens will be used when possible to protect other workers from direct exposure to welding operations.
	Fire prevention / combustibles materials	A separate worker shall act as fire watcher for all welding and burning operations where combustibles or personnel may be exposed.
		A charged fire extinguisher shall be located within 25 feet and in plain view of the worker when welding or burning.

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CM Concurrence

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LLNL Group/Contractor/Subcontractor Concurrence

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Subtier Concurrence