

**Job Risk Analysis**

Name(s) of Risk Team Members: J. Scott, D. Lehn, J. Carlson, A. Anderson, R. Medina, J. Tabbacco,				Point Value → Parameter ↓	1	2	3	4	5							
Job Title: Material Handling, Machinery Job Number or Job Identifier: JRA # 2-06				Frequency (B)	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift							
Job Description: Rigging LESB III Surge Tanks and Power Supplies from C-line Shielding to Floor.				Severity (C)	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability							
Training and Procedures List (optional): Crane Operator training (web-based course and practical), Basic Rigging training, Back Safety training				Likelihood (D)	Highly Unlikely	Unlikely	Possible	Probable	Multiple							
Approved by: <i>E. Lessard</i> Date: 5-19-2006 Rev. #: 0																
Stressors (if applicable, please list all): DOE identified training deficiencies in hoisting and lifting program as stressors.				Reason for Revision (if applicable):				Comments: The DDO for BNL is implementing a formal program to improve hoisting and rigging at BNL based on observations by a DOE ISM Team on August 13, 2004.								
				Before Additional Controls					After Additional Controls							
Job Step / Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction
Select rigging equipment, move to or from load area	Falls on same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections, yearly and pre-use inspections. OPM and SBMS procedures	Y	2	4	3	1	24								
Select rigging equipment, move to or from load area	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, Tier 1 inspections, mechanical equipment as required.	Y	2	4	2	2	32								
Inspect rigging equipment and crane	Falls to same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections, OPM and SBMS procedures	Y	2	4	3	1	24								
Inspect rigging equipment and crane	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, Tier 1 inspections, OPM and SBMS procedures, monthly and peruse inspections	Y	2	4	2	2	32								

Install slings on Power supplies and surge tanks	Falls to same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	1	24								
Install slings on Power supplies and surge tanks	Falls from height	Work Planning, PPE(slip resistant footwear), training, OPM and SBMS procedures, Specific OPM for Leading edge work on shielding, Lead person is safety monitor	Y	2	2	5	2	40								
Install slings on Power Supplies and Surge tanks	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, Tier 1 inspections, OPM and SBMS subject areas.	Y	2	4	2	1	16								
Position crane over Items to be lifted	Getting struck by hook or hitting other objects or people with hook while moving	Certified and inspected rigging, work planning, PPE, training, PE & C-AD inspection and maintenance of equipment, SBMS Subject Areas, C-A OPM, Tier 1 inspections, known route and area checked clear prior to movement, visible and audible alarms on cranes as required, directional markings on crane and pendant, availability of engineering input, supervisor assigns experienced staff, communication between staff, Known weight and center of gravity.	Y	2	4	2	1	16								
Connect load to hook	Falls to same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	1	24								
Connect load to hook	Falls from Height	Work Planning, PPE(slip resistant footwear), training, OPM and SBMS procedures, Specific OPM for Leading edge work on shielding, Lead person is safety monitor	Y	2	1	5	2	20								
Connect load to hook	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, Tier 1 inspections, OPM and SBMS subject areas.	Y	2	4	2	1	16								
Lift load and move to new location	Getting struck by dropped load or hitting other objects or people with load while moving	Engineered lift, MAP, work planning, PPE, training, PE & SMD inspection and maintenance of equipment, SBMS Subject Areas, Tier 1 inspections, known weight of load, known center of gravity of load, known lifting points on load, route and area checked clear prior to movement, visible and audible alarms on cranes as required, directional markings on crane and pendant, availability of engineering input, use of tag lines, supervisor assigns experienced staff, communication between staff, OPM and SBMS	Y	2	4	3	1	24								

Lower load and remove slings	Getting struck by dropped load	Engineered lift, MAP, work planning, PPE, training, PE & SMD inspection and maintenance of equipment, SBMS Subject Areas, Tier 1 inspections, known weight of load, known center of gravity of load, known lifting points on load, route and area checked clear prior to movement, visible and audible alarms on cranes as required, directional markings on crane and pendant, availability of engineering input, use of tag lines, supervisor assigns experienced staff, communication between staff, OPM and SBMS	Y	2	4	3	1	24								
Lower load and remove slings	Falls on same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	1	24								
Lower load and remove slings	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, Tier 1 inspections	Y	2	4	2	2	32								
Store rigging equipment	Falls to same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections	Y	2	4	3	1	24								
Store rigging equipment	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying	Back safety training, use of squat lift technique, work planning, PPE, training, Tier 1 inspections, mechanical equipment if required.	Y	2	4	2	2	32								
Place crane in safe position	Falls to same level	Work planning, PPE (slip-resistant footwear), training, housekeeping, Tier 1 inspections, OPM and SBMS subject areas	Y	2	4	3	1	24								
Further Description of Controls Added to Reduce Risk:																
*Risk:	0 to 20	21 to 40	41-60	61 to 80	81 or greater											
	Negligible	Acceptable	Moderate	Substantial	Intolerable											