

Crane Pick Plan (CPP)

This form is used as a check list for the required items being requested to completed the lift plan packet. Ensure documentation is provided with the corresponding item(s) on the checklist. Verify "YES" or "NO" when completed. **DO NOT leave boxes un-checked.**

| List of Required Items for Lift/Pick | Verify | |
|--|--------|----|
| | YES | NO |
| Crane/Load Handling Equipment Pre-Lift Plan | | |
| Crane Annual Test/Examination Certificate | | |
| Rigger(s) and Signalperson(s) Certification | | |
| Crane Operator NCCCO Certification | | |
| Crane Operator medical card | | |
| Forklift certifications (As needed) | | |
| Lift Diagram, Center of Gravity and Attachment Points (Critical Lift Only) | | |
| JSA Covers Hazards and Controls | | |
| Load Handling Activities (LHA) Considerations | | |
| Building Evacuations (Notifications and Barricades/Signage, If necessary) | | |
| Traffic/Pedestrian Control Plan (If necessary) | | |
| Emergency Action Plan (If necessary) | | |
| Copy of Hand Signals | | |
| Spreader Bar/Beam Certifications | | |

Pre-Lift

This form is used to identify the personnel performing the work and the load information. Complete this form and submit to Construction Manager for review. **DO NOT leave fields blank, use N/A.**

| | | |
|---|--|-----------------------------|
| Job: | Date(s): | |
| SR #: | Location: | |
| Personnel and Equipment Information | <i>Note: *Cannot act as a dual role.</i> | |
| Crane Make/Model: | | |
| Lift Director: | | |
| Crane Assembly/Disassembly Director: | | |
| Certified Crane Operator*: | | |
| Qualified Signal Person(s): | | |
| Qualified Rigger(s): | | |
| Description of Load(s): | | |
| Load Information | | |
| Amount of Counter weight (if used): | | |
| Spreader Bar/Beam Used: YES NO | | |
| (1) Load weight (lbs): | | |
| (2) Load deductions for crane (lbs): | | |
| (3) Total weight of all rigging (lbs): | | |
| Total lifted load (1+2+3): | | DON'T DELETE AUTO FILLED |
| Longest planned radius of the lift (ft): | | |
| Crane capacity at the longest planned radius (lbs): | | |
| Percentage of crane capacity (In decimal form): | | DON'T DELETE AUTO FILLED |
| Is the percentage >0.75 (PNNL SME peer reviewed required) | YES NO | |

Lift Director Signature: _____ Date: _____

Load Handling Hazard Assessment

The load handling category should be determined based on the review of the following considerations (**DO NOT leave boxes un-checked**):

| a) Potential Hazards to Persons: | YES | NO | N/A |
|--|------------|-----------|------------|
| (1) If the load handling activity will involve personnel lifting. | | | |
| (2) If the load will be moved or suspended over areas accessible to personnel. | | | |
| (3) If the load contains hazardous materials. | | | |
| (4) If load handling personnel will be in locations that may be hazardous during the handling activity (e.g. pinch points, crush points). | | | |
| b) Hazards in Proximity to the Work Area: | YES | NO | N/A |
| (1) If the load and/or the LHE can encroach the prohibited zone of power lines. | | | |
| (2) If there is potential for electromagnetic radiation/radio frequency hazard (e.g., loss of communication, electrical discharges, and shock). | | | |
| (3) If the load handling activity can cause damage to pipe lines, tanks, equipment, or products that could create an adverse environmental impact. | | | |
| (c) Complexity of Load Handling Activity: | YES | NO | N/A |
| (1) If the load has potential for instability during the load handling activity due to the: | | | |
| (a) design or configuration of the load (e.g., shape, load integrity and sail area). | | | |
| (b) center-of-gravity of the load relative to the established connection points. | | | |
| (c) load weight shift (e.g., liquid filled, swing arms, and movable parts). | | | |
| (2) If the load handling activity uses complex load handling methods. | | | |
| (3) If the load handling activity will be performed in proximity to obstructions or in limited clearance areas, including consideration of clearance between the LHE and the load. | | | |
| (4) If the load is to be manipulated (e.g., turned, rotated, and tilted). | | | |
| (5) If the LHE travels during the lift. | | | |
| (6) If the load handling activity uses multiple LHE. | | | |
| (7) If the load handling activity is unique to or infrequently performed by the personnel involved. | | | |
| (8) If special means or access for attaching and removing rigging is required (Vendor v.s OEM attachment points). | | | |
| (d) Adverse Impact From Environmental Conditions: If load handling activity could be adversely impacted by conditions such as: | YES | NO | N/A |
| (1) Effects of wind in the load and/or LHE (e.g., speed, direction, sustained, and/or gust). | | | |
| (2) Support for the load, the LHE, or both (e.g., ground, rail, girder, structure, foundation, vessel list, and trim). | | | |

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|--|------------|-----------|------------|
| (3) Ambient temperature (e.g., high, low, and range). | | | |
| (4) Surfaces moving relative to one another (e.g., from land to water, or water to land, or water to water). | | | |
| (5) Visibility (e.g., fog, sun, glare, lightning, and obstructions). | | | |
| (6) Precipitation. | | | |
| (7) Lightning. | | | |
| (e) LHE Capacity and/or Performance: | YES | NO | N/A |
| (1) If the load weight is significant compared to the LHE capacity as configured. | | | |
| (2) If factors, such as the following, have the potential to encroach upon maximum capacity of the LHE, as configured, and/or diminish its performance: | | | |
| (a) increased loading due to extraction or removal of a load (e.g., demolition, suction, and friction). | | | |
| (b) dynamic loading (e.g., abrupt starting, stopping, acceleration, and abrupt load transfer). | | | |
| (c) line pull. | | | |
| (d) brake/clutch/pump setting and/or conditions. | | | |
| (e) accuracy of load weight information/determination. | | | |
| (f) site conditions as outlined on paragraph 5-2.6 of ASME P30.1. | | | |
| (g) potential load shift during load handling activity. | | | |
| (h) weight distribution or transfer between multiple LHEs. | | | |
| (i) effects of moving to/from liquids (current, buoyancy). | | | |
| (j) out-of-plane loading. | | | |
| (k) equipment history or condition. | | | |
| (f) Rigging Capacity and/or Performance: If factors, such as those listed in (e)(2)-(c) above, and/or the following, have the potential to encroach upon maximum capacity of the rigging, as configured, and/or affect its performance: | YES | NO | N/A |
| (1) Rigging attachments points of the load (e.g., lifting lugs, pre-cast inserts). | | | |
| (2) Side loading of the rigging hardware and attachments. | | | |
| (3) Complexity of rigging. | | | |
| (4) Weight distribution or transfer of load within the rigging arrangement. | | | |
| (5) All rigging component capacities, (e.g., slings, shackles, hooks, etc.) are acceptable for the load. | | | |
| (g) Adverse Commercial Impact: | YES | NO | N/A |
| (1) If the load has a significant replacement time that will adversely effect the project. | | | |
| (2) If the cost of replacing the load is considered significant or the load is irreplaceable. | | | |
| (3) If failure to complete the load handling activity could create a project delay, work shutdown, or disruption to PNNL's mission. | | | |

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|---|------------|-----------|------------|
| (4) If the load handling activity can cause damage to pipes, tanks, equipment, or products that could create an adverse impact. | | | |
| (h) Site Requirements Unique to the load handling activity: | YES | NO | N/A |
| (1) Corporate considerations/policies. | | | |
| (2) Regulatory considerations [e.g., local, state, federal, DOT, railroad (FRA) and military]. | | | |
| (3) Potential impact to vital infrastructure (e.g., public utilities, roadways, seaports, pipelines, and railroads). | | | |
| (i) Repetitive Lifts: | YES | NO | N/A |
| (1) Distraction, fatigue, inattention, or lack of concentration of the load handling personnel. | | | |
| (2) The LHE and rigging equipment manufacture's recommendations for duty cycle or repetitive operations. | | | |

NOTE: When "YES" is selected for any of the items in sections (a-i), documentation of the hazard mitigation strategy is required. Documentation of the hazard mitigation may be carried out through the JSA and/or the area provided below.

Duties of Assigned Personnel

*Note: *Cannot act as a dual role*

| Assigned Personnel Approvals | | |
|--------------------------------------|------------|-----------|
| Discipline | Print Name | Signature |
| Site Supervisor: | | |
| Lift Director: | | |
| Crane Assembly/Disassembly Director: | | |
| Crane Operator*: | | |
| Rigger(s) and Signalperson(s): | | |
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*This form is to be completed during the pre-lift meeting, prior to lifting. Anytime there is an unsafe condition during the lift, pause the job. **DO NOT leave boxes un-checked.***

| Pre-Lift Check | | | |
|---|-----|----|-----|
| | YES | NO | N/A |
| Are there Potential Hazards to Persons? (e.g., lifting personnel, suspended over occupied areas, lifting material immediately dangerous to life and health, pinch points, and crush points) | | | |
| Are there Hazards in Proximity of the Work Area? (e.g., power-lines, electromagnetic radiation/radio frequency hazards) | | | |
| Is this a complex lift? | | | |
| Weather/Wind Acceptable? | | | |
| Outriggers required? | | | |
| Matting Acceptable? | | | |
| Payload weight/center-of-gravity verified? | | | |
| Correct rigging? Rigging Inspections complete? | | | |
| Is there an adverse commercial impact? (e.g., replacement time, irreplaceable, project delay, work shutdown, etc.) | | | |
| Field Conditions match plan? | | | |
| Is there repetitive lifts? (distractions, fatigue, inattention or lack of concentration) | | | |
| Verified Daily Crane Inspection has been Completed (Provide Documentation) | | | |
| Site Control/barricade required? | | | |
| Communication (hand/radio)? | | | |
| All certifications verified? | | | |
| Are attachments secure? | | | |
| Verified load charts and counter weight? | | | |

Lift Director Signature: _____

DATE: _____

Submit completed form to Procure.