

**NEW ORLEANS DISTRICT SAFETY OFFICE
CRITICAL LIFT PLAN
Plan Contents Checklist**

YES	N/A	DESCRIPTION OF LIFT PLAN COMPONENT
		Critical Lift - Planning Checklist
		Lift Analysis Report
		Process Contingency Plan
		Copy of Crane(s) Load Chart
		Copy of Vendor's Charts showing capacity of Slings & Shackles
		Copy of Inspection Reports for Manufactured Lifting Equipment
		Elevation View Drawings
		Engineering Calculations for Engineered Lifting Components
		Engineering Soil Test Reports of Crane Setup Site
		Routing Sketch of Equipment Travel into Plant
		Other (List)

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Planning Checklist**

The following checklist will be filled out by the planners of the critical lift to ensure thoroughness and completeness of plan. Reviewers of the lift plan are encouraged to use this list to ensure that all aspects of the lift have been thoroughly addressed in the plan presented to them for review.

ITEMS TO ADDRESS WHEN PLANNING LIFT	YES	N/A
How has the weight been determined? Was a margin added to calculate weights?		
Have all appurtenances been considered in the weight calculations?		
Has all the rigging hardware been included in the weight calculations?		
What is the minimum actual clearance between the load and the boom during the lift?		
Who has determined the center of gravity? How was it determined? Is it marked on the load?		
If the radius was calculated, has it been double-checked by measuring in the field?		
Who is in charge of the lift? What are their qualifications? Who will signal the operator?		
Are radios required? Who will provide? What channel? Are they Intrinsically Safe?		
Is there anything inside the load that could shift during the lift?		
Is the load fragile enough to require lifting from a "strong back" or from multiple attachment points? Has the strong back been designed by a competent engineer and load tested?		
Will the crane load change as the lift progresses?		
Has the anchor bolt pattern been checked to confirm the load can be landed properly?		
Is the surface area large enough to create unusual control problems in the wind?		
Have all rigging components such as shackles, hooks, and slings been inspected for signs of damage or deterioration before use?		
Have all rigging hardware been selected to work within the manufacturers specs?		
Have sling angles flatter than 45 degrees been avoided and the slings or chains been chosen to allow for increase loads due to sling angles?		
Is the rigging arranged to have the crane hook directly over the load's center of gravity with the load hanging level?		
Have softeners been utilized to protect the rigging where sharp corners could cause damage?		
Does the rigging provide positive control of the load to prevent slipping or shifting?		
Are shackles or hooks always used in such a manner as to avoid side bending in the hardware?		
Will spreaders and other rigging hardware remain safely clear of the boom, the load, and other objects at all times during the lifting operation?		

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ITEMS TO ADDRESS WHEN PLANNING LIFT	YES	N/A
Have qualified personnel designed and tested special rigging hardware in accordance to regulations?		
Has anyone checked to see that the shackle pins will fit the holes provided in the lifting lugs?		
Are the dimensions of the lifting lugs-pad eye consistent with the size of shackle proposed? Will the shackle be able to turn as the load goes from horizontal to vertical?		
Have the appropriate impact factors been used in designing the lifting lugs, shackles, etc,		
Has any required non-destructive testing been done to assess the quality of welds attaching lifting lugs, pad eyes, trunnions, etc,		
Is there enough clearance between the shell and the lifting lug - pad eye to get the nut on the shackle pin?		
How will the lifting and swing areas be barricaded?		
What are the limits on wind speeds for making the lift? How and where will wind speed be measured?		
If a tailing crane has to walk is the path level and properly compacted?		
Has the shift superintendent been notified of movement of the load to the lifting site? Are any permits required?		
Has the load transport route to the lift site been checked for overhead obstructions? Are there any bridges, culverts, pipeways, etc. to cross? Are they structurally capable of safely supporting the transport load?		
Has the Safety Office been involved in lift planning process or lift plan review?		
What efforts have been made to identify obstructions in the lift path and swing path? How accurate are these efforts?		
What is the maximum load imposed by the cranes on the soil? Is the soil bearing capacity adequate to safely support the crane loads? Has a soil investigation program been performed? What is the assumed load distribution through the timber mats, if they are used?		
Where will the crane be assembled? What route will the crane take from the assembly site to the lift site?		
Can the outriggers be fully deployed?		
How will the lifting slings be safely disconnected once the load is landed and anchored?		
Is adequate lighting equipment available for use if the lifting operation should extend beyond normal daylight hours?		
Can rigging personnel safely control and manipulate the load throughout the lifting path?		

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ITEMS TO ADDRESS WHEN PLANNING LIFT	YES	N/A
Have emergency procedures been determined and communicated to all personnel involved in the lifting operation?		
Have emergency plans been developed by, communicated to, and understood by operating personnel? Are the operating personnel clear regarding isolation of lines containing toxic or flammable material? How are the valves identified?		
Has the lift plan been reviewed with crane operators, riggers, and others involved in the lifting operations? Has the plan been reviewed with supervisors and workers in adjacent area?		
Does the lift plan reflect the philosophy that safety is the top priority?		

The critical lift plan checklist has been reviewed and all items listed have been addressed in the Critical Lift Plan:

Lift Plan Developer: _____

Rigging Supervisor: _____

**NEW ORLEANS DISTRICT SAFETY OFFICE
CRITICAL LIFT PLAN
Lift Analysis Report**

Location:

Description of Item:

Length	Width	Height	Weight
Is weight estimated? Yes	No	If yes, by whom?	
Is weight documented? Yes	No	If yes, how?	

Type of Crane(s) and Crane Configuration(s)

Lift Crane	Tail Crane
Crane Make & Capacity	Crane Make & Capacity
Boom Length:	Boom Length:
Jib Length:	Jib Length:
Boom Extension Length:	Boom Extension Length:
TOTAL LENGTH:	TOTAL LENGTH:
Over Front:	Over Front:
Over Side:	Over Side:
Over Rear:	Over Rear:
360 Rotation:	360 Rotation:
Radius-Verified by	Radius-Verified by
Measurement in Field:	Measurement in Field:
Chart Capacity(s):	Chart Capacity(s):
Boom angle at Pick:	Boom angle at Pick:
Boom angle at Set:	Boom angle at Set:
Jib Offset Degrees:	Jib Offset Degrees:
Parts of Line to be Used:	Parts of Line to be Used:
Capacity Per Part:	Capacity Per Part:
CRANE GROSS	CRANE GROSS
CAPACITY AT ABOVE	CAPACITY AT ABOVE
CONFIGURATION:	CONFIGURATION:

How will the lift be accomplished?

NEW ORLEANS DISTRICT SAFETY OFFICE
CRITICAL LIFT PLAN – Pg. 2 of 3
Lift Analysis Report

Lift Crane – Rigging To be Used

Type	Quantity	Size	Length	Cap. Lbs/Tons	Total Weight
Wire Rope Slings					
Nylon Slings					
Web Slings					
Belly Bands					
Shackles					
Eye Bolts					
Spreader Bars					

Hitch Arrangement	Total Capacity	Lbs/Tons	Degrees of Angle
Straight Pull			
Choker Hitch			
Legs - Vertical			
Basket Hitch			
Bridles			

Tail Crane – Rigging To be Used

Type	Quantity	Size	Length	Cap. Lbs/Tons	Total Weight
Wire Rope Slings					
Nylon Slings					
Web Slings					
Belly Bands					
Shackles					
Eye Bolts					
Spreader Bars					

Hitch Arrangement	Total Capacity	Lbs/Tons	Degrees of Angle
Straight Pull			
Choker Hitch			
Legs - Vertical			
Basket Hitch			
Bridles			

NOTE: Include: 1. Diagram For Each Rigging System.
2. Calculations For Sling Angles And Stress Per Leg.

**NEW ORLEANS DISTRICT SAFETY OFFICE
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Lift Analysis Report**

Deductions		
Function	Lift Crane - Lbs/Tons	Tail Crane - Lbs/Tons
Main Block		
Auxiliary Ball		
Jib - Stowed		
Jib - Erected		
Rigging		
Auxiliary Boom Point		
Loadline/Whipline		
Other (identify)		
Total Weight Deduction		

Final Calculations		
	Lift Crane	Tail Crane
Crane Gross Capacity		
Minus Deductions		
Equal Net Capacity		
Weight of Load		
Divided by New Capacity		
Equals % of Load Chart Used on this Lift		

- Maximum Wind Speed Allowed for lift to proceed: _____
- Type and Capacity of Weakest Part of Rigging? _____
- Lifting Over Pipe Rack? Yes / No Approval: _____
- Lifting Over Process Equipment? Yes / No Approval: _____
- Lifting Over Electrical Lines? Yes / No Approval: _____

**NEW ORLEANS DISTRICT SAFETY OFFICE
CRITICAL LIFT PLAN**

GENERAL INFORMATION ON LIFT

Description of Lift: _____
Area - Unit of Lift: _____ Project Number: _____
Planned Lift Date: _____
Plan Developed by: _____ Date: _____

CONTRACTOR'S REVIEW AND APPROVAL

(Review & Approve method, safety, location, and orientation)

Rigging Supervisor: _____
Superintendent: _____
Safety Department: _____
Project Manager: _____
Engineering Departments: _____

REVIEW AND CONCURRENCE

(Review for Safety and Completeness)

Client Rigging Specialist: _____
Client Representative: _____
Project Manager: _____
Client Safety Representative: _____

PRE-LIFT SAFETY MEETING

(Review Plan with Work Crew at Jobsite Before Lifting)

Contractor Supervisor: _____
Crane Operator #1: _____
Crane Operator #2: _____
Work Crew Members: _____

