



Lifting Equipment Operation in Adverse Weather Best Practice

OVERVIEW	
	<p>The Industry Business Roundtable’s Crane, Lifting, and Rigging committee composed of SME’s from both owners and contractors collaborated together to develop this “Best Practice that provides suggested minimums when operating lifting equipment in adverse weather. The challenge that owners and contractors have is to ensure that safety of their employees and equipment while maintaining a productive work environment.</p> <p>Industry Business Roundtable’s purpose is to educate participating companies, so every company represented will be better informed and can make its own individual decisions. IBR members are not required to adopt the IBR recommendations or policies.</p> <p>Disclaimer – Discuss with client differences between owner / clients’ requirements and contract company’s requirements and decide which will be follow.</p>
PURPOSE	
	<p>Establish “Best Practice” guidance that will set an action plan in progress to eliminate: Possible damage to equipment, personnel, and monetary loss. Provide a Safety resource for employers and employees as well.</p>
OBJECTIVE	
	<p>Establish recommended “Best Practice” that would be proactively used by owners and lifting equipment vendors / contractors within our industry</p>
RECOOMENDATION	
	<p>Establish Manufacturer’s Recommendation as minimum requirements</p> <p>Establish lightening process</p> <ul style="list-style-type: none"> • 15 miles to safe out / secure lifting equipment • Consider minimum 30 minute restart after last strike in “15 mile” area <p>Establish Stop Work Authority (SWA)</p> <p>Perform Job Hazard Analysis (JHA, JSA, JLA) – Hazard / Risk Assessment</p> <p>Establish competent person for lifting equipment process (i.e. lift supervisor, lift director, crane operator)</p>
COMMUNICATIONS	
	<p>Establish communication method / plan to informing employees of adverse weather</p>



	<p>Establish communications from Site to Lifting Equipment and / or Riggers</p> <ul style="list-style-type: none"> • Who is the focal point / designated person for notification? <p>Weather requirements reviewed as part of the lift planning / execution / assembly / disassembly</p> <ul style="list-style-type: none"> • When thunderstorms threaten, do not start anything that you cannot quickly stop. • Communicate time required to secure lifting equipment and / or load
TRAINING	
	Adverse weather recognition training and when to take action to ensure safety included in employee training and / or orientation.
REFERENCES	
	<p>OSHA 40 CFR 1926 Crane Standard 1926 Subpart CC - Cranes & Derricks in Construction</p> <p>National Oceanic and Atmospheric Administration (NOAA) www.lightningsafety.noaa.gov</p> <p>National Weather Service (NWS) http://www.weather.gov/</p>
DEFINITIONS	
WIND SPEED AT CRANE BOOM TIP	<p>Wind speed (sustained or gusts) must be addressed through site or manufacturers requirements.</p> <p>Consider review @ 20 mph, Suspend @ 25 mph, No Go @ 30 mph</p>
WIND GUST	Is a sudden, brief increase in the speed of the wind followed by a lull.
ASSMEBLY & DISASSEMBLY (A & D)	<p>1926.1404(h)</p> <p>Addressing specific hazards. The A & D director supervising the assembly / disassembly operation must address the hazards associated with the operation, which include:</p> <p>1926.1404(h)(12)</p> <p>Wind speed and weather. The effect of wind speed and weather on the equipment.</p>
OPERATING INSIDE CLEARANCE ZONE	<p>1926.1410(c)(1)</p> <p>Minimum clearance distance. The power line owner / operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution determines the minimum clearance distance that must be maintain to prevent electrical</p>



		<p>contact in light of the on-site conditions. The factors that must be considered in making this determination include, but are not limited to:</p> <ul style="list-style-type: none"> • Conditions affecting atmospheric conductivity; time necessary to bring the equipment, load line, and load (including rigging and lifting accessories) to a complete stop; • Wind conditions; degree of sway in the power line; • Lighting conditions, and other conditions affecting the ability to prevent electrical contact.
OPERATION	1926.1417(h)	Storm warning. When a local storm warning has been issued, the competent person must determine whether it is necessary to implement manufacturer recommendations for securing the equipment.
	1926.1417(n)	The competent person must adjust the equipment and / or operations to address the effect of wind, ice, and snow on equipment stability and rated capacity.
HOISTING PERSONNEL	1926.1431(k) (8) 1926.1431(k) (8) (i) Environmental conditions.	Wind. When wind speed (sustained or gusts) exceeds 20 mph at the personnel platform, a qualified person must determine if, in light of the wind conditions, it is not safe to lift personnel. If it is not, the lifting operation must not begin (or, if already in progress, must be terminate).
	1926.1431(k)(8)(ii)	Other weather and environmental conditions. A qualified person must determine if, in light of indications of dangerous weather conditions, or other impending or existing danger, it is not safe to lift personnel. If it is not, the lifting operation must not begin (or, if already in progress, must be terminate).