

Lifting Equipment Operation in Adverse Weather Best Practice

OVERVIEW			
UVERVIEW	The Houston Business Boundtable's Crane Lifting and Digging committee composed		
	The Houston 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.		
	Houston Business Roundtable's purpose is to educate participating companies, so every company represented will be better informed and can make its own individual decisions. HBR members are not required to adopt the HBR recommendations or policies.		
	Disclaimer – Discuss with client differences between owner / clients' requirements and contract company's requirements and decide which will be followed.		
PURPOSE			
	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.		
OBJECTIVE			
	Establish recommended "Best Practice" that would be proactively used by owners and lifting equipment vendors / contractors within our industry.		
RECOMMENDATION			
RECOMMENDATION	Establish Manufacturer's Recommendation as minimum requirements		
	Establish lightening process		
	15 miles to safe out / secure lifting equipment		
	Consider minimum 30 minute restart after last strike in "15 mile" area		
	Establish Stop Work Authority (SWA)		
	Perform Job Hazard Analysis (JHA, JSA, JLA) – Hazard / Risk Assessment		
	Establish competent person for lifting equipment process (i.e. lift supervisor, lift director, crane operator)		
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COMMUNICATIONS	Fotablish communication method / plan to informing application of advance weether		
	Establish communication method / plan to informing employees of adverse weather		
	Establish communications from Site to Lifting Equipment and / or RiggersWho is the focal point / designated person for notification??		
	Weather requirements reviewed as part of the lift planning / execution / assembly / disassembly		
	When thunderstorms threaten, don't start anything that you can't quickly stop.		
	Communicate time required to secure lifting equipment and / or load		



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TRAINING				
	Adverse weather rec	ognition training and when to take action to ensure safety included		
	in employee training and / or orientation.			
REFERENCES				
	OSHA 40 CFR 1926 Crane Standard 1926 Subpart CC - Cranes & Derricks in Constructi			
	National Oceanic and Atmospheric Administration (NOAA) www.lightningsafety.noaa.gov			
	National Weather Service (NWS) http://www.weather.gov/			
DEFINITIONS				
WIND SPEED AT CRANE BOOM TIP		Wind speed (sustained or gusts) must be addressed through site or manufacturers requirements.		
		Consider review @ 20 mph, Suspend @ 25 mph, No Go @ 30 mph		
WIND GUST		Is a sudden, brief increase in the speed of the wind followed by a lull.		
ASSMEBLY & DISASSEMBLY (A & D)	1926.1404(h)	Addressing specific hazards. The A & D director supervising the assembly / disassembly operation must address the hazards associated with the operation, which include:		
	1926.1404(h)(12)	Wind speed and weather. The effect of wind speed and weather on the equipment.		
OPERATING INSIDE CLEARANCE ZONE	1926.1410(c)(1)	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 maintained to prevent electrical contact in light of the on-site conditions. The factors that must be considered in making this determination include, but are not limited to: 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.		



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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 terminated).
	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 terminated).