



IPS ★ **ITCS**
Industrial Performance Services Industrial Tubular Catalyst Services

SIGNALING CRANES PROCEDURE

V:2023.1

Signaling Cranes Procedure

January 2023

Purpose

Overhead cranes, hoists, and rigging equipment are used by IPS★ITCS employees for lifting and moving materials and require coordinated and safe signaling procedures.

Scope

Applies to all IPS★ITCS employees who operate overhead cranes, hoists, and rigging equipment in the scope of their job duties and assignments.

Key Responsibilities

Managers and Supervisors

- Are responsible to ensure that employees and contractors are trained and qualified on the proper operations and have been trained in crane and hoist safety including signaling safety.
- Are responsible to see that all provisions of this procedure are followed and that signaling operations are performed and the equipment is in safe operating condition.

Employees

- Employee operators are responsible to follow the requirements of this program.
- Employees designated as signalers are responsible to follow the requirements of this program.

General Requirements

Only one person may give signals to a crane at a time with the exception of emergency stop signals. Only one person shall give signals to a crane at a time, unless the emergency stop signal is given due to safety issues.

IPS★ITCS shall ensure the testing of communication devices on site prior to beginning work. The device used to transmit signals must be tested on site before beginning operations to ensure that the signal transmission is effective, clear and reliable.

When a Signal Person Must Be Provided

A signal person must be provided in each of the following situations:

- The load travel or the area near or at load placement is not in full view of the operator.
- When the equipment is traveling, the view in the direction of travel is obstructed.
- The operator or person handling the load determines a signal person is necessary due to site specific safety concerns.

Stop Work Immediately

If signals between the operator and signal person are interrupted the operator must safely stop operations until communication is reestablished. The ability to transmit signals between the operator and signal person must be maintained. If the ability to transmit signals is interrupted at any time, the operator must safely stop operations requiring signals until communication is reestablished and a proper signal is given and understood.

The Types of Signals to be Used

Signals to operators must use the hand, voice, audible method. Means of transmitting the signals (direct line of sight, radio, etc.) must be suitable and appropriate for the site conditions. Hand signals must follow the Standard Method in Appendix A of Subpart CC of 29 CFR 1926.1419. See Standard Hand Signals illustrations at the end of this procedure.





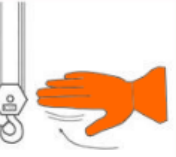

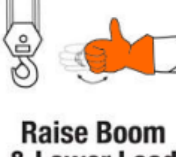



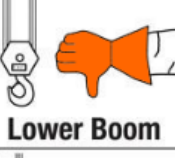






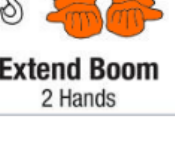


Qualification Requirements of the Signal Person

Mandatory training is required for the following crane related personnel:

- Overhead power lines
- Signal persons
- Competent/qualified persons
- Operators
- Crush/pinch points
- Tag-out

Each signal person must:

- Know and understand the type(s) of signals used;
- Be competent in the application of the type of signals used;
- Have a basic understanding of equipment operation and limitations, including the crane dynamics involved in swinging and stopping loads and boom deflection from hoisting loads;
- Demonstrate that they meet the qualification requirements through an oral or written test, and through a practical test.

MOBILE CRANE HAND SIGNALS				
 Main Hoist	 Auxilliary Hoist	 Hoist Load	 Hoist Load Slowly	 Stop
 Raise Boom	 Raise Boom & Lower Load	 Lower Load	 Lower Load Slowly	 Emergency Stop
 Lower Boom	 Lower Boom & Raise Load	 Swing Boom	 Swing Boom Slowly	 Travel (mobile equipment)
 Retract Boom 2 Hands	 Retract Boom 1 Hand	 Extend Boom 2 Hands	 Extend Boom 1 Hand	 Dog Everything

Competency Assessment

No.	Questionnaire	C/NYC
Q1		
A1		
Q2		
A2		
Q3		
A3		
Q4		
A4		
Q5		
A5		

Enclosed Attachments	
Risk Assessment	<input checked="" type="checkbox"/>
Environmental Aspect and Impact	<input checked="" type="checkbox"/>
Training and Competency	<input checked="" type="checkbox"/>
Measure and Evaluation Tools	<input checked="" type="checkbox"/>

Competency Checklist

To be filled out by Trainer and signed by Employee, Assessor and Supervisor before being returned to the HSEQT Manager for recording purposes.

Procedure	Competency	Date	Competent YES / NO	Employee Signature

(Please tick appropriate box)

This employee is competent in performing the job.

This employee has not attained the competency level.

*

* *If the employee has not attained all competency levels, the General Manager must assess the action to be taken, provide an extension of training or alternative action as listed below.*

Alternate action to be taken: _____

Signed By	Employee:	_____	Date:	_____
	Trainer:	_____	Date:	_____
	Assessor:	_____	Date:	_____
	Regional Manager:	_____	Date:	_____

Environmental Aspects and Impacts

Identified Environmental Aspects and Impacts

The following table is a summary of the likely environmental aspects and impacts that may be identified during site inspections. The significance of each impact needs to be assessed using the Risk Assessment Model.

Activity	Aspect	Impact
Purchasing & Administrative Work	Consumption of goods	Conservation of natural resources
	Consumption of energy (eg. Electrical equipment and facilities)	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Habitat loss
	Generation of waste (eg. Paper)	Consumption of space for waste disposal; Habitat loss
Climate Control	Consumption of energy	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Habitat loss
	Generation of noise	Disturbance to community; Habitat loss
Cleaning of – offices / vehicles	Storage, use and release of chemicals	Contamination of air, water or soil; Risk to human health
Transport (Fleet vehicles / staff travel)	Consumption of energy	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Loss of habitat at all stages of generation; Light pollution
	Consumption of goods (eg. Oil)	Consumption of natural resources; Generation of waste; Habitat loss; Biodiversity impacts
	Generation of waste (eg. Oil)	Consumption of space for waste disposal; Potential contamination of water or soil; Habitat loss
	Exhaust emission	Release of greenhouse gases and atmospheric pollution
	Use of dangerous goods (eg. Batteries)	Potential contamination of air, water or soil; Risk to human health
	Generation of noise	Disturbance to community; Habitat degradation
Operations		

Sample only.
To be filled in

Risk Assessment

Risk Assessment // insert name here					
Step No: Logical sequence	Sequence of Basic Job Steps documented in the Procedure, Work Instruction and project plans. Break down Job into steps. Each step should be logical and accomplish a major task.	Potential Safety & Environmental Hazards/Impacts at the site of the Job Identify the actual and potential health and safety hazards and the environmental impacts associated with each step of the job.	Risk Rating Refer to the risk matrix or HSEQT.PRO. Risk Mgt	Recommended Corrective Action or Procedure <i>Determine the corrective actions necessary to reduce the risk to as low as reasonably practical (ALARP) refer to HSEQ.PRO.Risk Mgt. The risk must be reduced or controlled to ALARP before work commences.</i> Document who is responsible for implementing the controls to manage each hazard identified.	Risk Rating refer to the risk matrix or HSEQT.PRO.Risk Mgt
1.					
2.					
3.					
4.					
5.					

Audit



Process: insert// Procedure: Insert //			Date:	Audited by:
			Location of Audit:	Area Mgr/Supervisor:
Item	Question	Evidence Sited	Comments	Conformance Score 0,3,5
1.				
2.				
3.				
4.				
5.				
6.				
7.				
AUDITOR'S SIGNATURE:		CONFORMANCE SCORE: / 25		0 – Non-Conformance 3 – Continuous Improvement Opportunity 5 – Total Conformance
SAFETY REP'S SIGNATURE:		CONFORMANCE %:		