



IPS
Industrial Performance Services

ITCS
Industrial Tubular Catalyst Services

DUAL BAG LIFTING PROCEDURE

V:2023.1

Dual Bag Lifting Procedure

January 2023

Scope

This procedure details the process of flying dual bags of catalyst while loading a reactor for IPS★ITCS personnel and sub-contractors.

Objective

The objective of this procedure is to instruct personnel on flying dual bags of catalyst while loading a reactor, in accordance with IPS★ITCS guidelines.

Project Information

Pre project meetings will determine the loading process and requirements. This could affect the desired approach for flying dual bags.

The Project Manager will advise the project crew on the specifics of the project, including:

- HSE requirements
- The method of loading
- Loading atmospheric conditions
- What equipment is required
- What PPE is required?
- Copies of all SDS sheets.
- Catalyst packaging and pre-bagging requirements.
- Vessel details and drawings.
- Resources available.
- Client contacts.
- Client specific requirements for handling catalyst.

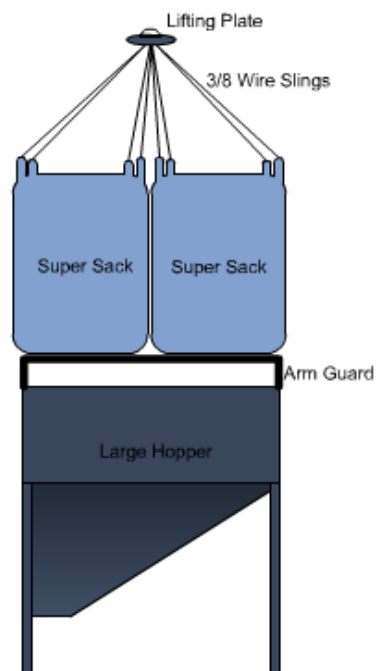
Lifting

The principals of lifting remain constant regardless of the loading method, i.e., sock loading and dense loading.

- Ensure all HSE requirements are met.
- Client to advise a nominated representative responsible for all lifting criteria.
- Client to advise if any samples of the catalyst are required by them.
- Check weather conditions are suitable for lifting.
- Brief all personnel involved, with the lifting process (Toolbox Training Session).
- Ensure all permits are in place.
- Ensure sufficient lighting outside the vessel.
- Distribute all QA/QC documentation.
- Check quality, quantity and contents of all loading media are correct and clearly marked.

- All loading requirements i.e., drums, bulk bags, bins etc. are to be positioned near to the loading point in sequence for easy access.
- Check all lift equipment to be used is within required test dates.
- Set up all equipment and ensure all check lists have been completed.
- Set up crane in most efficient location (lifting radius) and determine lifting point to minimize boom movements.
- If required, position a hopper over the man way and connect the loading sock or loading pipe securely to the hopper.
- Ensure during set up of loading equipment inside a vessel, consideration is given to the safest access and egress possible.
- One technician to be responsible for all loading QA and documentation.
- One technician to be positioned to open loading hoppers on top of vessel.
- Dogman to be positioned to direct the crane. Consideration must be given to staying in a position up-wind of any dust resulting in the transfer between hoppers.
- Rigger to be positioned at crane lift point to attach and detach loading containers, i.e., hoppers, catalyst bins or bulk bags.
- Transfer catalyst to be loaded to the crane lift point using a forklift.
- When loading a hopper on the top man way, one technician must be positioned to control the flow of catalyst through the hopper by operating the slide valve on the bottom of the hopper.
- Ensure there is a good line of communication between the technician inside the vessel, on top of the vessel and the technicians at grade.
- While dual bags, both bags must be positioned horizontal to each other
- The loading hopper must have the ability to hold both bags
- The loading hopper must be equipped with arm guards
- Personnel shall not walk or be positioned under either bag while being lifted or emptied.

Proper Example of Hopper with Arm Guard for dual operating dual bags.



Loading

The principals of loading remain constant regardless of the loading method, i.e., sock loading and dense loading.

- Ensure all HSE requirements are met.
- Client to advise a nominated representative responsible for all loading criteria.
- Client to advise if any samples of the catalyst are required by them.
- Check weather conditions are suitable for loading.
- Brief all personnel involved, with the loading process (Toolbox Training Session).
- Ensure all permits are in place.
- Ensure sufficient lighting inside and outside the vessel.
- Distribute all QA/QC documentation.
- Undertake a visual inspection of vessel isolations.
- Check quality, quantity and contents of all loading media are correct and clearly marked.
- All loading requirements i.e., drums, bulk bags, bins etc. are to be positioned near to the loading point in sequence for easy access.
- Check all equipment to be used is within required test dates.
- Blow down all hoses to be used inside the vessel.
- Set up all equipment and ensure all check lists have been completed.
- Undertake gas testing and complete QA sheets.

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 %:		