

# PLANNING FOR LOAD HANDLING HANDBOOK 7 STEP PROCESS

Contractor Version

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# TABLE OF CONTENTS

<b>1. DEFINE LIFT SCOPE</b>	<b>3</b>
<b>2. ASSESS AND CATEGORIZE LIFT</b>	<b>4</b>
<b>3. DEVELOP LIFT PLAN</b>	<b>5</b>
3.1 LIFT PLAN REQUIREMENTS	6
3.2 STANDARD LIFT PLANS	7
3.3 CRITICAL LIFT PLANS	8
<b>4. CONDUCT PRE-LIFT REVIEW</b>	<b>9</b>
<b>5. CONDUCT LIFT PREPARATIONS</b>	<b>11</b>
<b>6. EXECUTE LIFT</b>	<b>13</b>
<b>7. CONDUCT POST-LIFT REVIEW</b>	<b>14</b>
<b>8. REFERENCES</b>	<b>15</b>

Tap table of contents to jump to any section



## IMPORTANT

This job-aid supports the Load Handling (Hoisting) Policy and the Planning for Load Handling Standard (located on [www.SaskPower.com](http://www.SaskPower.com)).

**Contact your contract administrator if you have questions.**

# 1. DEFINE LIFT SCOPE

At a minimum the following must be considered to determine the scope of a lift:

- Load
- Travel path
- Work site layout
- Work site ground conditions
- Type and rated capacity of load handling equipment (LHE) proposed

## 2. ASSESS AND CATEGORIZE LIFT

### IMPORTANT

All load handling is required to be classified prior to performing the lift.

- Classifications are:
  - Standard
  - Critical
- Classification is to be determined using the *Lift Classification Reference Guide (LCRG)*

Tap the link to go to the Reference Section for [LCRG](#)



### INFORMATION

Electronic copies of the *LCRG* can be found on [www.SaskPower.com](http://www.SaskPower.com).



# 3. DEVELOP LIFT PLAN

## IMPORTANT

All load handling activities shall be planned and have a lift plan.

- Lift plan must be completed prior to executing the lift.
- All **Critical** lifts shall have a written lift plan.
- All **Standard** lifts shall have a lift plan; to determine if the plan needs to be written or can be verbal follow:
  - *Determination of Written or Verbal Lift Plans Process*

Tap the link to go to the Reference Section for the [Process](#).



## INFORMATION

Electronic copies of the *Process* can be found on [www.SaskPower.com](http://www.SaskPower.com).



## 3.1 LIFT PLAN REQUIREMENTS

Every lift plan, regardless of classification, shall include (at a minimum):

- Scope of work (lift)
- Classification of lift
- Information about the load, LHE, lifting accessories, and travel path
- Site/Environmental conditions
- Communication means
- Site controls
- Contingency plans
- Emergency response
- Role assignments

**Tap the link to go to the Reference Section for more on [Role Assignments](#)**



## 3.2 STANDARD LIFT PLANS

- Written Lift Plan
  - Where to document the required information is determined by the user – ensure it meets or exceeds the required content listed in *Section 3.1 - Lift Plan Requirements*.
  - After the lift is complete, submit written lift plan with job papers.
- Verbal Lift Plan
  - Record the lift classification on the Hazard/Aspect Risk Assessment (HARA).
  - Document that the verbal lift plan was discussed on the job papers or HARA.

### INFORMATION

Electronic copies of the Lift Plan Template can be found on [www.SaskPower.com](http://www.SaskPower.com).



### 3.3 CRITICAL LIFT PLANS

- Critical lift plans require additional rigor, detail and consideration beyond that used for standard lifts.
- Critical lift plans shall be reviewed by a competent worker, in addition to the Lift Planner, prior to being implemented by the Lift Director.
- When the load handling activity requires the application of engineering principles to mitigate the associated risks, the lift plan shall be reviewed and certified by a professional engineer.
- Test lifts with a test weight shall be part of the critical lift plan when hoisting personnel with LHE not primarily designed to lift people (e.g. crane or digger derrick with an attached man basket).
- Critical lift plan documents must be written and include all of the lift plan requirements.





# 4. CONDUCT PRE-LIFT REVIEW

Discussion with workers led by the Lift Director prior to conducting lift preparations.

The purpose of the **pre-lift review** is to make all aware of the lift plan, associated hazards, barriers to be implemented, their roles and responsibilities and shall include (at a minimum):

- Review of lift plan
- Assessment of site/environmental conditions
- Determining if changes are needed to lift plan due to site survey, weather conditions (e.g. wind) and/or new information
- Assigning roles and responsibilities for lift preparations and lift execution

Cont...



- Completing the HARA
- For repetitive lifts, determination of the frequency for:
  - Pre-lift reviews
  - Inspection of LHE and lifting accessories

## IMPORTANT

If the pre-lift review identifies that changes are required to the lift plan, the implemented changes shall be communicated to all load handling personnel and documented if a written lift plan is in use.

Any changes shall be assessed to ensure they have not created new hazard/aspects or have increased the risk beyond an acceptable level.



# 5. CONDUCT LIFT PREPARATIONS

Lift preparations shall include:

- Implementing site controls
- Conducting preoperational inspections, including inspection of the load
- Testing communications means
- Verifying the functionality of safety devices

Depending on the load handling activity, preparations may also include:

- Assembling LHE
- Positioning of LHE
- Configuring rigging
- Conducting a test lift

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## IMPORTANT

Remember: Test lifts with a test weight shall be performed prior to hoisting personnel with LHE that is not primarily designed to lift personnel (e.g. mobile crane or digger derrick with an attached man basket).

Note: Worker baskets part of bucket trucks and elevating work platforms (e.g. scissor lift, JLG) do not require a test lift.

A test lift, without a load or with a mock-up load, should be carried out where clearance is limited or other hazards increase the complexity of the lift.



## 6. EXECUTE LIFT

The load handling activity shall only begin after:

- Lift Plan has been reviewed
- HARA has been conducted
- Lift Director confirms all preparations have been satisfactorily conducted

If the lift is stopped prior to completion, the load and LHE should be secured until the lift resumes.

Additional rigor, regardless of lift classification, shall be applied by all involved in load handling activities when the load is comprised of people.

### CRITICAL

**Stop** the lift if it becomes necessary to deviate from the lift plan. Only the Lift Director can re-initiate the lift once it has been re-evaluated.



# 7. CONDUCT POST-LIFT REVIEW

The purpose of this review is to identify opportunities for improvement and recognize what went well.

The Lift Director leads the **post-lift review** discussion with all workers involved after the lift is complete.

It includes, but is not limited to, a review of the following:

- Lift plan
- Pre-lift meeting
- Lift preparations
- Execution of the lift

## INFORMATION

The Lift Director is responsible to assess the recommendations from the post-lift review for possible use in future load handling activities.



# 8. REFERENCES

## 8.1 LIFT CLASSIFICATION REFERENCE GUIDE SUMMARY

## 8.2 DETERMINATION OF WRITTEN OR VERBAL LIFT PLANS PROCESS

## 8.3 ROLE ASSIGNMENTS OF LIFT TEAM

**Tap the heading to jump to any reference**



# 8.1 LIFT CLASSIFICATION REFERENCE GUIDE SUMMARY

If **any** of the following criteria are applicable, then the lift is classified as **Critical**.

<p>✓ Lifting personnel using LHE not designed for the explicit purpose of lifting people (e.g. forklift, mobile crane or digger with an attached man basket). Note: Bucket trucks or elevating work platforms do not fit in this criteria.</p>
<p>✓ Load containing material immediately dangerous to life and health or that has the potential for significant environmental or environmental regulatory consequences. (An exception is when using the appropriate SOP for handling oil-filled equipment containing PCBs).</p>
<p>✓ The load is being lowered into or lifted from a confined space <b>and</b> the workers within the confined space are not visible to the LHE Operator or Signaller.</p>
<p>✓ Moving or suspending the load over unprotected areas accessible to the general public, over unprotected buildings or over equipment containing material immediately dangerous to life and health.</p>
<p>✓ Lift is to be performed in a congested area (limited clearances, proximity to obstructions, etc.) <i>increasing the potential</i> for damage to the load, the LHE and or surrounding structures and or equipment.</p>
<p>✓ Load and or LHE encroaching within 7 m of exposed, live electrical conductors (&gt; 750V) <b>and</b> the LHE Operator is not a qualified electrical worker or a SaskPower employee holding an equipment operator position as part of a Distribution or Transmission crew.</p>
<p>✓ There is a <i>potential for instability or overload of <b>the LHE</b></i> due to load handling activities involving any of the following:</p> <ul style="list-style-type: none"><li>– Suspended load transfers</li><li>– Tandem lifting</li><li>– Off vertical loading</li><li>– Increased loading (friction or suction)</li></ul>
<p>✓ The weight or center of gravity of the load is unknown or difficult to estimate.</p>

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# LIFT CLASSIFICATION REFERENCE GUIDE SUMMARY CONT...

<ul style="list-style-type: none"><li>✓ There is <i>potential for instability or uncontrolled movement of <u>the load</u></i> due to:<ul style="list-style-type: none"><li>– Potential for significant weight shift (liquid filled, moveable parts)</li><li>– The location of the load's center of gravity relative to its lifting points</li><li>– Complex manipulation of a suspended load</li></ul></li></ul>
<ul style="list-style-type: none"><li>✓ Load handling activity requires intentional dynamic loading (e.g. use of wrecking ball).</li></ul>
<ul style="list-style-type: none"><li>✓ LHE is a helicopter.</li></ul>
<ul style="list-style-type: none"><li>✓ Load handling activity involves lifting over environmentally sensitive areas (e.g. water bodies, archeological sites, critical habitats for species at risk, etc.).</li></ul>
<ul style="list-style-type: none"><li>✓ If ground conditions <i>increase the complexity</i> of the lift and or are <i>likely to affect equipment performance</i> (e.g. ground/surface type, moisture, underground services/voids/vaults, compaction, near excavation/waterbody, slope stability, ground contour).</li></ul>
<ul style="list-style-type: none"><li>✓ The total load weight (includes weight of rigging) is &gt; 85% of rated LHE capacity. Note: This does not apply to LHE used for lifting people (e.g. bucket trucks, elevating work platforms, swingstages).</li></ul>
<ul style="list-style-type: none"><li>✓ The LHE equipment (i.e. hoist) is attached to structures that have no recorded load rating or approval by qualified personnel confirming the structure's capability to support the load.</li></ul>
<ul style="list-style-type: none"><li>✓ Load is comprised of equipment or the load handling activity has potential to damage equipment that is deemed critical to the bulk electric system or grid and the associated commercial impact is significant.</li></ul>
<ul style="list-style-type: none"><li>✓ SaskPower directives, standard operating procedures, work procedures, or other concerns mandate that this load handling activity be deemed critical.</li></ul>

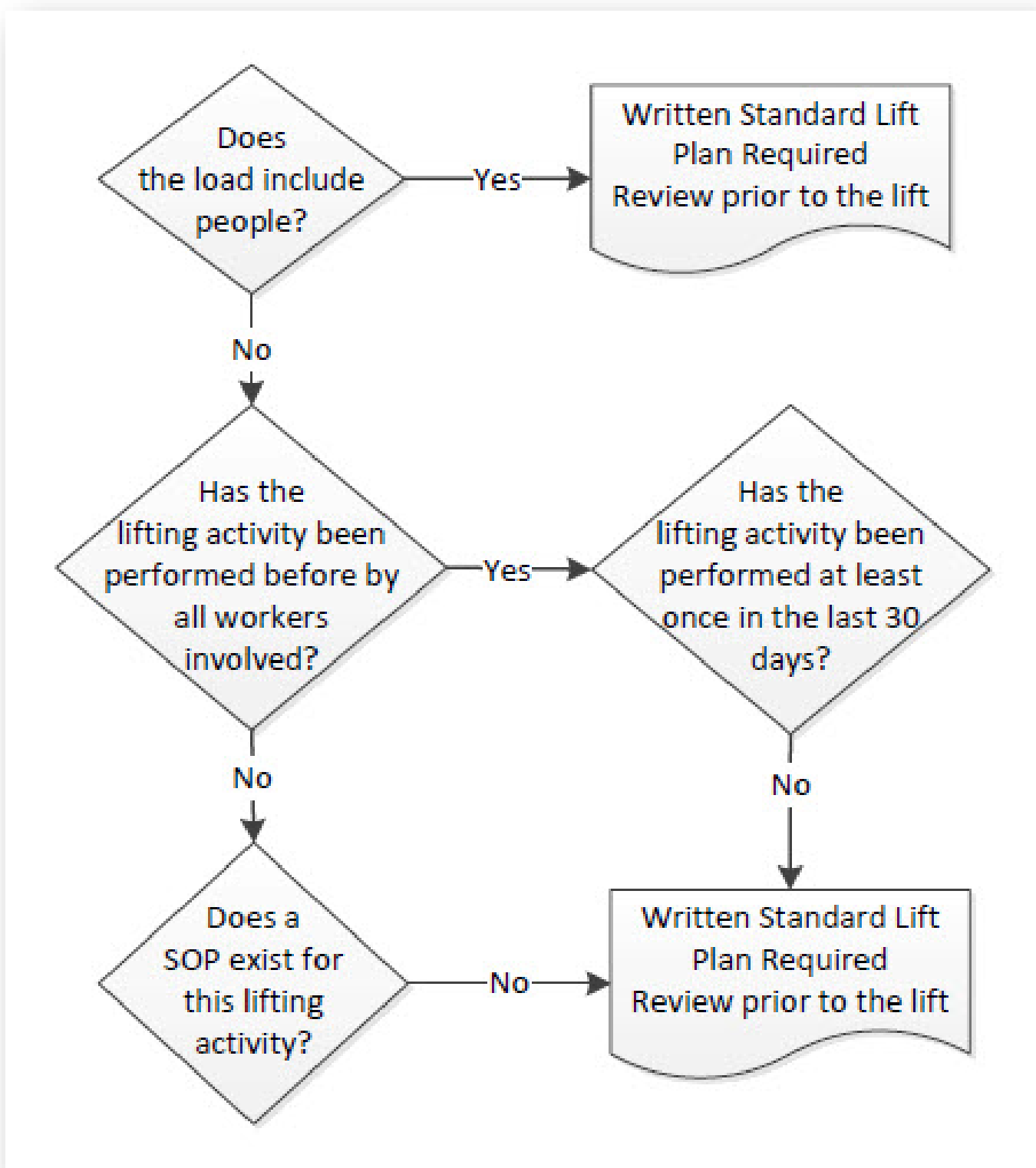
## IMPORTANT

Remember: If **any** of the above criteria are applicable, then the lift is classified as **Critical**.



## 8.2 DETERMINATION OF WRITTEN OR VERBAL LIFT PLANS PROCESS

**Standard** lifts requiring a **written lift plan**:

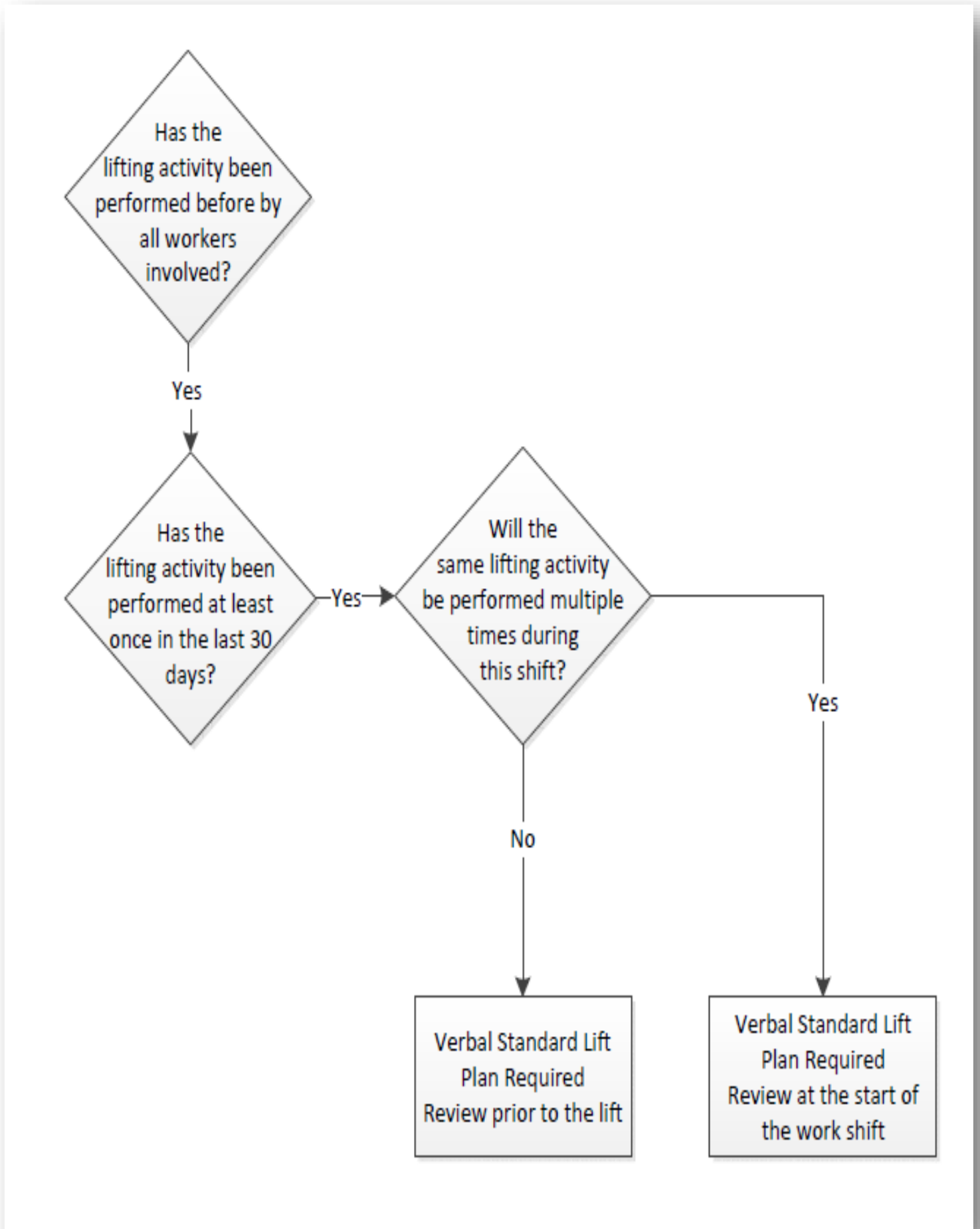


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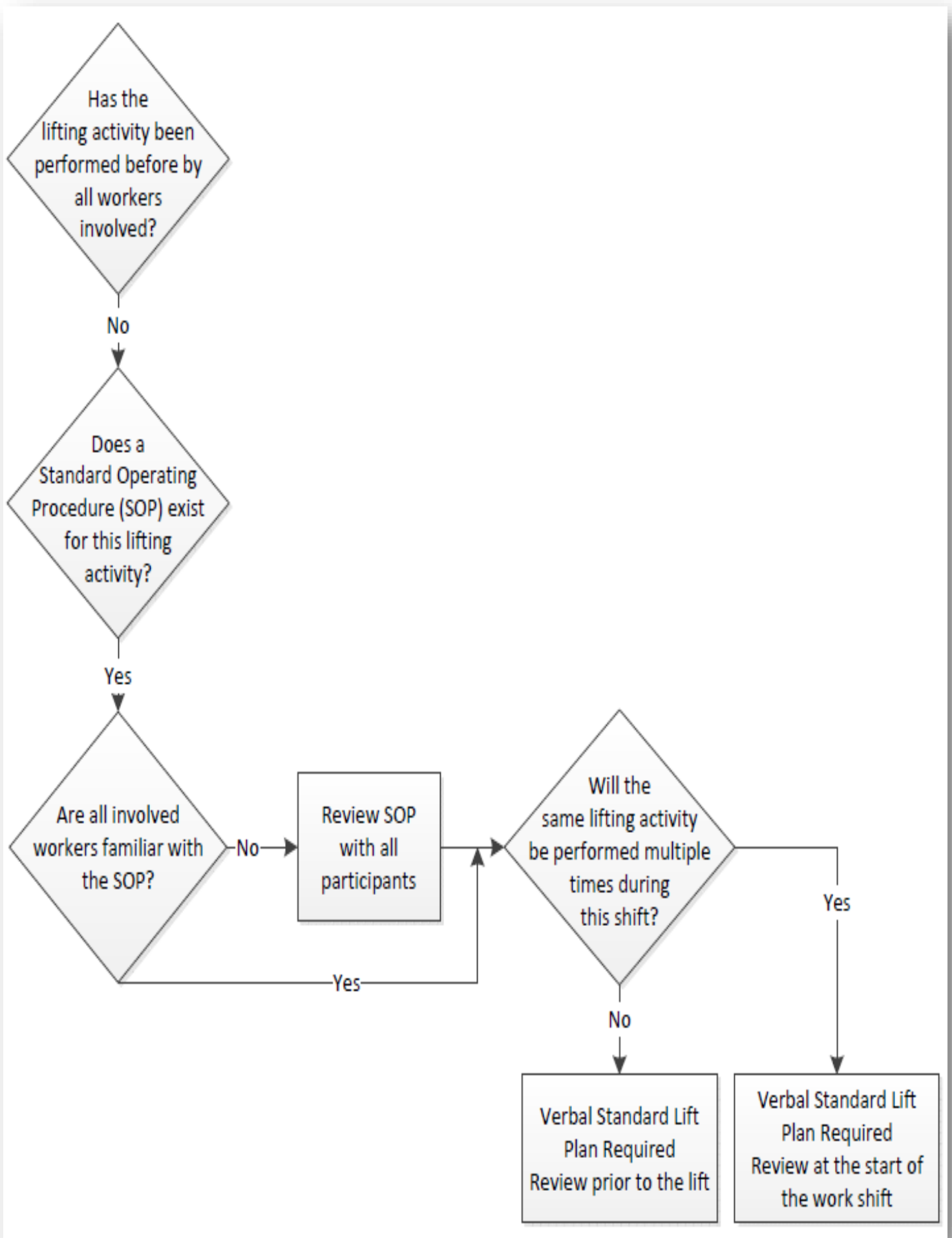
# Standard lifts - The following two figures show when **verbal lift plans** are allowed:

Figure 1:



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Figure 2:



## IMPORTANT

All **Critical** lifts shall have a written lift plan.



## 8.3 ROLE ASSIGNMENTS OF LIFT TEAM

### IMPORTANT

No worker shall be assigned a role if they do not have the necessary skills, qualifications and experience.

No worker shall perform work for which they are not competent.

An individual can perform multiple roles at the same time given the roles do not conflict and doing so will not negatively impact safety.

Role	Requirement Type
Site Supervisor	Mandatory
Lift Director (Person in Charge)	Mandatory
Lift Planner	Mandatory
LHE Operator	Mandatory
Signalperson	Optional
Rigger	Optional
Spotter	Optional
Assembly/ Disassembly Director	Optional
Engineer	Optional
Transport Operator	Optional

### IMPORTANT

For lifts utilizing lifting accessories, a Rigger becomes mandatory, and for lifts that the LHE Operator does not have a clear line of site throughout the entire travel path, a Signalperson becomes mandatory.

