



HPOIL GAS PRIVATE LIMITED
(A Joint Venture of HPCL & OIL)

**TENDER FOR
HIRING TRANSPORTER FOR SHIFTING VARIOUS MATERIALS FROM
AMBALA-KURUKSHETRA GA & KOLHAPUR GA TO NAGALAND GA**

TECHNICAL VOLUME

TENDER NO. HOGPL/2025-26/C&P/029
DATE: 19.12.2025

1. CONTRACTOR'S SCOPE OF WORK

General:

- 1.1 The Scope/Specification covers the minimum specified requirement for the various activities to be carried out by the Contractor toward the related work at the aforesaid site.
- 1.2 Contractors shall, with due care & diligence, execute the work in compliance with all laws, by laws, ordinances, regulation etc. and provide all services and labour inclusive of supervision thereof.
- 1.3 Before Starting of Job, Contractor shall ensure that toolbox talk with Engineer/Supervisor in charge and identified work-related site-specific risk assessment is done at any location.
- 1.4 Contractor shall take full responsibility for the stability and HSSE of all lifting operations and methods involved in the work.
- 1.5 Contractors should be deemed to have obtained all necessary information on subject as above mentioned as to risks, contingencies and all other circumstances which may influence the work.
- 1.6 Unless otherwise specified, all sections of this specification shall apply to all the specification referred in this Contract
- 1.7 All the responsibility for the completion of job will be in the Contractor's scope. Permits & Authorizations:
- 1.8 Contractor shall apply and obtain all necessary permits related to the work to be performed. After completion of work a joint inspection shall be done at workplace.
- 1.9 Contractor shall record data obtained during the pre-site visit and shall submit and present to the engineer/supervisor in-charge. Contractor shall also capture or consider the risk identified by Owner's HSSE and engineer/supervisor in-charge
- 1.10 Contractor shall provide the overall solution or mitigation for the identified risk of whatsoever manner prior to execute the job. All the resources shall be arranged at work site by the Contractor for mitigation or as control measures prior to execution of job.
- 1.11 Contractor shall follow the instruction and guidelines given by the Owner for performing the loading, unloading, and transportation activity.
- 1.12 Contractor shall carry out the work normally within the official duty hours of Owner. The Concern Supervisor of Contractor must ratify any deviation from the normal working hours. No work shall be carried out without permission of Owner Engineer/Supervisor In-charge.
- 1.13 Contractor's Representative should not be without Identity Card at Owner sites / office

- as well as sites. I-Card shall be arranged by Contractor.
- 1.14 For any work covered under company's work permit system, as informed by the engineer/supervisor in charge, the Contractor shall collect the work permit.
 - 1.15 Contractor shall depute competent manpower at site. Owner may provide basic training to the staff and issue safety passports for performing the activities at owner's site.
 - 1.16 In case of urgency / priority, Owner may allow night work with special permit to work and stringent safety precautions. Contractor shall arrange proper lighting arrangements.
 - 1.17 Contractor shall carry out Loading/Lifting, Transportation on Appropriate Vehicle and Unloading of Heavy Materials (i.e. Pipes, Fittings, Valves, CNG Compressor, Compressor Packages, Cascade, Electrical Transformer, Panels and Dispensers & Other Materials etc.) through Crane/Hydra from Owner designated places.
 - 1.18 Stacking of Pipes to be done on Wooden Slippers.
 - 1.19 Contractor shall charge after arrival of Crane/Hydra/Vehicle to the Owner Site.
 - 1.20 Contractor shall arrange following for Loading, Unloading & Transportation of Materials.
 - Crane Capacity — 25/30/35/40 MT
 - Crane Capacity- 50/60/80/100 MT whenever required
 - Hydra Capacity - 12/14/16/18 MT
 - Forklift Capacity - 15/20 MT
 - Lower Short Length Bed Trailer
 - Lower Long Length Bed Trailer
 - Normal Semi-Bed Trailer
 - Trucks (LCV/MCV/HCV)
 - Tempo Long Length
 - 'A- Any Other Vehicle
 - Lifting Accessories
 - Wide Body D Shackle with Lock Pin type from 2 T to 35 T
 - Oblong Master Link up to 35 T
 - Nylon Web Belt 3Mtrs, 4Mtrs, 6Mtrs, 8Mtrs, 10Mtrs having capacity from 2 MT to 20 MT in each Length
 - Wire Rope Sling 3Mtrs, 4Mtrs, 6Mtrs, 8Mtrs, 10Mtrs having capacity of (2MT, 5MT, 8MT, 10MT& 20MT, 25 MT and 35 MT), Hooks and Thimbles of Various Rope size etc.
 - Any Other Lifting Items as per requirement of job and as per best engineering practices.
 - Skilled Rigger & Min. 1 Helpers and 1 Safety and 2 Mechanical Supervisors with valid Owner Safety Passport (when issued/provided by the Owner) for loading unloading activity.

- 1.21 While, Loading/Unloading of Material, Contractor shall ensure that the equipment can be erected from 5-meter distance
- 1.22 Contractor shall arrange & fixing of Air Muffler and Spark Arrestor in Hydra/Crane & Vehicles during the execution of job at Owner respective site/station.
- 1.23 Contractor shall carry out one trial run of Crane at Owner Respective Site before actual transportation of materials.
- 1.24 Contractor shall submit the Route Map, Site Plan & lifting Plan to Owner Engineer/Supervisor in charge one day before starting of job.
- 1.25 Before Starting of job, Contractor shall submit & get approved the Material Lifting Procedure from Owner Engineer/Supervisor in Charge.
- 1.26 Contractor shall ensure that no damage to the structures/Civil Works at Owner Site, if any it shall be repaired at Contractor's own cost.
- 1.27 In case of any damage or mishandling, Contractor shall be responsible for that and whatever repairing cost shall be borne by Contractor.
- 1.28 Contractor shall take Comprehensive insurance of his Hydra/Crane & vehicle, accessories along with drivers, riggers & other manpower provided under this contract etc.
- 1.29 Contractor shall ensure that the Work shall be done only between Sunrise to Sunset. (Heavy loading/unloading jobs are not allowed before or after the said period)
- 1.30 Contractor shall arrange any supporting material and resources for Crane/Hydra/Vehicle Positioning on site.
- 1.31 Contractor shall ensure that the Trailer having tying material like Chains, belts with latch lock etc. Also, both trailer & chains should be fit for required weight.
- 1.32 Before Starting of Job, Contractor shall submit the Certificates & physical inspection of the Crane, Hydra, Trailer/Vehicle, lifting tackles, shall be carried out by Owner.
- 1.33 Contractor will ensure that the Driver of the Crane/Hydra shall be duly trained. He should be in possession of a valid license and shall be having at least 5 years of experience in similar jobs.
- 1.34 Contractor shall submit following Certificates to Owner Engineer/supervisor in Charge before starting of job & fulfil all the statutory requirement/compliance
 - Test Certificates of Crane/Hydra (For ex. Form 10)
 - Valid Registration of Crane/Hydra/Vehicle.
 - Test/Fitness Certificates of D-shackle, belt, rope, sling, hook etc. (For example. Form 10)
- 1.35 Before conducting any lifting operations through Crane/Hydra, Contractor shall ensure the following:
 - What will be the lifting plan
 - Collating necessary data to prepare lifting plan.
 - Material required performing activity.
 - Finalizing the Appropriate capacities of lifting item, tools and tackles etc.
 - Identification of other resources requirement to execute job
 - Risk assessment and mitigation plan based on site condition.
 - Checking the material conditions for any defects prior to use
 - Competent Manpower requirement to perform the assigned job
 - Equipment arrangement schematics diagram mentioning all

- parameters of lifting calculation.
- Availability of CRANE OEM manual
- CRANE/HYDRA equipped with all safety interlocks
- Resources arrangement applicable for mitigation of risk and hazards of execution
- Availability of mat plate beneath the outrigger of CRANE
- The Safe Working Load is not Exceeded
- A Proper Anchor, preferably mounted over head
- A double action self-locking snap hooks at each connection
- All Lifting equipment and safety device have been examined before use and are in good condition
- The Risk of dropped objects has been assessed/mitigated
- Personnel & Public are kept clear of the lift path/radius
- Use Safe Lifting Technique
- 1.36 Contractor shall ensure the safety & security of Owner goods being handled and shall protect it from damage and mishandling.
- 1.37 In case of damage of the material being handled by the Contractor as a part of this agreement, the Contractor shall be liable to pay back the equivalent amount to Owner hiring services.
- 1.38 Contractor shall arrange A type ladder for height of 2Mtrs, 3Mtrs, 5Mtrs for unloading and mounting of any compressor.
- 1.39 Contractor needs to perform his job within Owner duty hours. Any job at one station/site his entry time and outgoing time needs to be recorded by himself in his Service Report as well as the Owner station/site Register
Available with the Station/site Operator. This mandatory for the Contractor while performing or attending any job
- 1.40 Contractor shall be responsible for the safe custody of material and instruments once accepted as free issue from Owner.
- 1.41 Contractor shall ensure that his supervisor is always present at site (other than the activity where only supply of labours is asked for) and provide all assistance required by the Owner in carrying out inspection during execution of work.
- 1.42 Contractor shall arrange at his own expense for any diversion to traffic or any other utility as required during the course of work. The work site would be on case-to-case basis, but no additional transportation charges/miscellaneous charges would be paid apart from the rate agreed upon.
- 1.43 Contractors shall supply and manage personnel including payment of salaries and wages, insurance and medical attention.

Vehicle & Driver:

- 1.44 Vehicles used for loading/unloading/transportation shall be compliant with, but not limited to, the following points:
 - The vehicle capacity must be greater than the total material load on the vehicle.
 - The vehicle provided by Contractor must have valid road permit & registration

provided by the local authorities

- Each vehicle shall be provided with a spare wheel with tires in good condition with other tools to prevent minor breakdown.
 - Vehicle should be equipped with Reverse Horn / Alarm.
- 1.45 Contractor shall provide the details of the driver including photocopies of their driving license. Any change in the driver shall be informed to the Owner.

HSSE Guidelines:

- 1.46 All activities shall be carried out as per Owner documented procedure and HSSE requirement and from it shall be dealt with very strictly.
- 1.47 Contractor shall observe all prevailing HSSE norms & labour laws applicable to them during the period of contract.
- 1.48 Contractor shall arrange & keep Emergency Telephone No. list, First Aid Box, Fire Extinguisher, PPE's etc. as per Owner's policy, in their vehicles while loading/unloading & transporting the materials
- 1.49 Very high standard of Owner's health, safety & environment management system shall be observed in the connected services by the Contractor and workman engaged by the Contractor.
- 1.50 Contractor shall strictly adhere to the environment norms as per the existing local rules and Owner's environment management system.
- 1.51 Contractors shall follow the Traffic Rules & Obey the Speed Limits.
- 1.52 Contractor shall not operate/attend Mobile Phone, while driving.
- 1.53 Contractor shall ensure that seat belts are worn by self and all other passengers before starting the vehicle.
- 1.54 Contractor shall ensure that the condition of the vehicle to be periodically checked by the respective department based on the standard checklist and Driver shall check the vehicle condition before starting of job as per the checklist.
- 1.55 Contractor shall not transport any other person and /or goods other than Owner material in the vehicle, while providing services to Owner.
- 1.56 The Driver deployed by the Contractor for providing services should not be at any time under the influence of liquor or drugs, should they be found consuming liquor or drugs or being rude, they shall be replaced immediately by the Contractor.
- 1.57 In case the vehicle breaks down during the transportation, the Contractor shall immediately inform to Owner & provide replacement of the vehicle. The replacement shall not take more than 3-4 hours.
- 1.58 Contractors shall operate their vehicles at their own risk entirely and Owner shall in no case be held responsible for any damage to the vehicles while on Owner's work. The Contractor shall maintain the vehicle in sound mechanical condition at all the times. The Contractor will rectify any defect notified by Owner immediately.
- 1.59 Contractor shall erect & install warning sign boards and barricades at workplace during execution of work (i.e. "Work in progress" etc.). The barricades shall be erected

as per the requirement of Owner.

- 1.60 Contractor shall ensure that all the HSSE requirements are properly discussed for any subcontracted activities with the staff employed to do the sub-contracted activity. No such activity shall be performed without clearance from Owner Engineer/Supervisor In-Charge.
- 1.61 Contractor must ensure that tools, appliances, machines, vehicles or other equipment which are going to be used for the job are periodically inspected and maintained. The Contractor shall maintain records of these inspections and maintenance activities. Owner reserves the rights to verify these records and prohibit use of items not found fit for use.
- 1.62 All tools and equipment must be inspected and recorded and certified fit for use before putting into services
- 1.63 Contractor shall submit medical test reports of their employees before starting work.
- 1.64 Contractor shall adhere to safe construction practice and guard against hazards and unsafe working conditions and shall comply with safety standards
- 1.65 If using a crane/hydra it must have
 - A Proper Anchor, preferably mounted over head with lock
 - A double action self-locking snap hooks at each connection
 - All Lifting equipment and safety device have been examined before use and are in good condition
 - The Risk of dropped objects has been assessed/mitigated
 - Personnel & Public are kept clear of the lift path
 - Certificate of Fit for use by a Chartered Engineer
- 1.66 Before Work at height, Contractor shall ensure that:
 - ❖ No work is to proceed unless a risk assessment has been carried out
 - ❖ All personnel must be trained and competent to carry out the intended task
 - ❖ Use specified fall-prevention equipment
 - ❖ Ensure close supervision and buddy support
 - ❖ Wherever possible use a fixed Ladder or Scaffold with handrails
 - ❖ Always maintain three-point contact
 - ❖ Check all equipment / PPEs and safety devices
 - ❖ The fall arrest must be connected to minimize the fall, overhead is best, with a proper anchor
 - ❖ Check for any loose objects
- 1.11 Contractor shall ensure that all the HSSE requirements are properly discussed for any subcontracted activities with the staff employed to do the sub-contracted activity. No such activity shall be performed without clearance from Owner Engineer/Supervisor In-Charge.
- 1.11 Contractors shall submit medical test reports of their employees before starting of job.
- 1.11 Contractors shall adhere to safe construction practices and guard against hazards and unsafe working conditions and shall comply with safety standards
- 1.11 If using a crane/hydra it must have
 - A Proper Anchor, preferably mounted over head with lock

- A double action self-locking snap hooks at each connection
- All Lifting equipment and safety device have been examined before use and are in good condition
- The Risk of dropped objects has been assessed/mitigated
- The fall arrest must be connected to minimize the fall, overhead is best, with a proper anchor
- Check for any loose objects
- Always secure all tools and equipment, with 100% tie-off
- Stop work if weather conditions are unfavorable and the task is no longer safe
- Before conducting any lifting operations, Contractor shall ensure the following:
 - A Lifting Plan is in Place
 - The Safe Working Load will not Exceed
 - All Lifting equipment and safety device have been examined before use and are in good condition
 - The Risk of dropped objects has been assessed/mitigated
 - Use Safe Lifting Technique
 - Availability of valid safety passport (when issued/provided by the Owner), PTW & SSRA (Site specific risk assessment)
- Any breach of the HSSE Exhibit shall be deemed by the Company to be a material breach of the terms of the Contract between the parties and the Company shall be entitled to take appropriate action including instructing the Service Provider/ Contractor to (a) Remedy the breach; (b) Suspend Work or (c) Terminate the Contract.

2 **Communications:**

- 3 Contractor shall provide mobile phones to his staff, so effective communication from site to Owner office can be done effectively.
- 4 All people engaged by the Contractor shall be the Contractor's own employee and they will claim no privileges from Owner. The Contractor will directly be responsible for the administration of his employee as regard general discipline and courteous behaviors.
- 5 In case of any hazard like fire, leakage etc. due to gross negligence of the Contractor, Owner reserves the right to impose penalty up to actual damage cost and or termination of Work Order depending upon the gravity of the situation.
- 6 Contractor shall sort out the queries, if any, during the inspection within time frame.
- 7 Communication to Owner as per contingency plan in case of any accident during execution of job.
- 8 Contractor must refer medical emergency management policy of Owner to handle any medical emergency on site.
- 8.1 If the works are not done as per Owner Satisfaction level, then Contractor shall do the necessary work at his own cost.
- 8.2 Contractor will get health check-up of his crew as per recommendation/ guidelines of Owner before starting of job and submit the reports / fitness certificate of Registered Medical Practitioner (Industries). He shall conduct the same of new members added to

his team as and when required.

- 8.3 Any communication between Owners authorized representative and the contractors" representative / employee would be considered legally binding on part of this Contract.
- 8.4 Work Planning:
- 8.5 Emergency Response Plan
- 8.6 In case of any injury or an accident at the site, the Contractor shall immediately inform the Engineer/Supervisor of the incident and further take immediate steps to take the injured person(s) to any of the Owner's nominated hospitals. The payments for such hospitalization and treatment shall be initially borne by Owner and shall be subsequently recovered from the Running Bills of the Contractor.

2. OWNER'S SCOPE OF SUPPLY

- 2.1. Owner shall provide schedule for carrying out the job.
- 2.2. Owner shall provide necessary site clearance / approval for carrying out the job.
- 2.3. Owner shall provide safety guidance & assistance as and when required.
- 2.4. Owner shall inform Contractor about Risk Associated with the job & it's Control Measure.
- 2.5. Owner shall provide Work Permit to carry out the job.
- 2.6. Owner shall provide safety / competency training related to their work to Contractor employees
3. Owner shall provide schedule for site visit for route selection and for further activities to be performed by the Contractor.
4. Owner shall provide Space for storage of materials.
5. Owner shall inform two days in advance about Crane/Hydra/Vehicle & maximum two days advance to Contractor for carrying out the job.
6. Owner shall provide information about HSSE, Statutory & additional requirements to be fulfilled by Contractor at Owner prior to commencement of the work.

7. SPECIFICATION OF WORK

Work shall be carried out as per Safe Engineering Practice and Requirement of Owner Engineer/Supervisor in charge.

Following thing needs to be ensured before performing lifting operation at site

- Standard Operating Procedure for safe Handling, Storage of Material at HPOIL GAS Store. Doc No **–/SOP/Store/001 dtd. 16.03.2021**. Work permits should be received from HPOIL GAS in charge.
- Submission of TC's of equipment like CRANE and Hydra, Driver Valid License etc. for making Work permits.
- Original load chart, valid RC book, certificate of periodic inspection (CPI form), Transport worthiness inspection report from RTO, valid
- From-10 from chartered Engineer and competent person, valid Insurance, valid PUC etc.

- Use good quality D-shackles and belts, slings as per requirement and test report/certificate for the same i.e. Form No-10 and manufacturers Certificate
 - Plate dimension to be placed under out riggers of CRANE
 - Crane shall be equipped with safety features and interlocks like Double D block, over hoist limit
 - Switch, SWL/ overload alarm or signal, swing horn etc.
 - Safe Route identification and risk assessment for material transportation and site entry and exit conditions
 - Site visit and conditions assessment prior to performing the job
 - Risk assessment and mitigation plan based on site condition.
 - Verification and submission of valid test certificates for the material to be used for lifting
 - lifting plan preparation and submission for approval to Owner
1. Finalizing the Appropriate capacities of lifting item, tools and tackles etc.
 2. Competent Manpower requirement to perform the assigned job.
 3. Finalizations of other resources requirement to execute job.
 4. Prompt reply, communication and reporting to Owner on work.
 5. Assign single point contact from initial stage till the successful completion of work
 6. Good understanding of Owner requirements associated with work.
 7. Transportation route survey is to be conducted for any overhead line and obstruction and road condition.
 8. Correct lifting plan preparation and get approval from Owner on the same at least 2 days prior to execution. Mobilization within 4 Days. Contractor shall not allot subcontract for any or part of the above job. If required, take prior Permission from Owner. All the responsibility for the completion of job will be in the Contractor's scope.
 9. If any component having more than 200 KG lifting is carried by hydro/crane. Manually not permissible for loading or unloading.

3.TRAINING:

- a. Owner provides training on Owner life savers to Contractor employees and extends support for other trainings planned from time to time. The Contractor shall ensure that his staffs are trained.
- b. After completion training and successful assessment, Owner may issue a competency/safety passport. Once the competency/safety passport is issued by the Owner, no Contractor employee shall be deployed at site for execution of work without the competency/safety passport.
 - i. Contractors shall provide first Aid box at each work site. Items in First Aid Box shall be as per the Tender Document
 - ii. Contractor shall endeavor to retain / avoid changing the staff. In case of any change in manpower, Contractor shall get the new members trained in time to avoid any delay in work. He shall also maintain minimum strength of manpower as per the requirement. Owner may recover the training cost in such cases.

- iii. Contractor shall provide specified PPEs as per PPE Matrix and ensure the same shall be used at site.
- iv. Contractor shall take the Permit to work for the work
 - i. Contractors shall ensure that before using tools, appliances, machines or other equipment, the same are in safe working conditions. Defective items must be repaired or removed from service immediately.
 - ii. Contractor should ensure that no work is carried out during night-time and adverse weather conditions.
 - iii. In case job is performed during late night hours, extra precautions are to be taken like;
 - 1. Reflectors barricading
 - 2. Flickering lights
 - 3. Road traffic signals
 - 4. Approval from authorities
 - 2. Toolbox talk is conducted and discuss in ensuring presence of each member from team.
 - 3. Activities planned for Loading Unloading and Transportation
 - 4. Result of Site-Specific Risk Assessment
 - 5. Risk mitigation plan
 - 6. Permit to Work requirements
 - 7. Lesson learns sharing if any
 - 8. Dynamic Risk Assessment is carried out as the work progresses and changes of site conditions.

4.SPECIFIC TERMS AND CONDITIONS:

- 5.1. The Contractor shall promptly pay directly to the appropriate governmental authority all taxes, levies and assessments imposed on Contractor and its employees by any governmental authority having or claiming jurisdiction in the areas where the Contract is being performed (including but not limited to compensating and personal income taxes, and Contractor license or business privilege taxes if applicable) and agrees to indemnify Owner and hold Owner harmless against any and all claims or liabilities for or on account of any payment made to or earned by Contractor in respect of the WORK.
- 5.2. The Contractor equipment shall be in good working order and shall be suitable for the performance of the obligations under the Contract and shall be properly maintained.
 - 1. Neither the Contractor nor its employees shall be nor deemed to be, either expressly or by implication, employees of Owner.
 - 2. The Contractor shall ensure that the Contractor Representative is present at the Work Site till the completion of the Work except for the activities where only labour supply is involved.
 - 3. Owner representative may at all reasonable times inspect any, part of the work, but any such inspection or any statement by Owner representative as to the quality of the work

shall not relieve Contractor of its liabilities under this Contract.

4. Contractor will make every effort to carry out complete work confirming to the specifications and to the fullest degree consistent with best industry practice.
5. The Contractor shall supply and manage personnel including payment of salaries and wages, insurance and medical attention.
6. Owner reserves the right to rearrange such deployment depending upon the progress and priority of work in various sections.

5. PENALTY TERMS:

The following critical parameter describes the system performance and service level expectations and requirements during the Implementation phase of Contract. The service level includes target performance measures, unacceptable measures and the related penalties for not meeting required service levels. The cumulative penalties arising out of Service Level Agreements detailed below shall not exceed 10% of the overall contract value. In case the actual Contract execution & Cumulative Invoice value is lower than the overall Contract value; the cumulative penalties shall not exceed 10% of the Cumulative Invoice Value. The penalties deducted more than 10% of cumulative Invoice Value shall be adjusted & reimbursed to the Contractor along with the Final bill.

Sr. No	Parameter	Service Level Agreement	Penalty
2	HSSE Compliance	Wearing of PPEs such as Safety shoes, safety helmet, hand gloves etc. required to perform lifting operations.	Rs. 1000/- per instance and if HSSE non-compliance is observed
3	Availability of labour and manpower as and when required as per intimation and Owner's requirement with all relevant/required documents	All required machine and manpower to be provided by contractor.	If not complied, then penalty of Rs.1000/- per instance
4	Child labour	Employment of labour above 18 years age.	It's mandatory requirement so noncompliance of the same shall lead to termination of the Contract

Standard Operating Procedure for Material Handling at HPOIL stores

Title of Document	Standard Operating Procedure for Material Handling at HPOIL stores
Document No	HPOIL/SOP/Stores/001
Issue no	001
Issue Date	05-09-2025

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 - 1. Manual Material Handling
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Specimen Formats of maintenance checklist:

Annexure –I	Crane & Lifting Tackles Inspection Checklist
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1. PURPOSE

The purpose of this procedure is to:

- Define the procedure for material handling at SGL's Stores

2. SCOPE:

- To ensure proper handling of material that has the possibility of inducing an injury.
- To ensure safe use of crane/hydra which includes safe system of work, management, planning for operation of crane/hydra at HPOIL's Stores.
- Store In-charge shall ensure implementation and compliance with this procedure for safe material handling at SGL stores.
- Permit to Work / License to Work wherever applicable for this procedure shall be as per

approved HPOIL Work Permit SOP vide ref. **HPOIL/SOP/HSE/003 dated 01.02.2025.**

3. REFERENCE:

- IS 13367-1: Safe use of cranes - Code of practice, Part 1: General

4. DEFINITIONS:

- Safe Working Load: The Maximum load that can be safely handled by a crane at a specified position and under specified conditions

6.GENERAL SAFETY PRECAUTIONS:

6.1 LIFTING / MANUAL MATERIAL HANDLING

- Know your intended route. If you need to clear objects in the pathway are you transport material, do so.
- Think before you lift - size up the object. Test the weight before trying to move it.
- To lift an object, place one foot behind and the other alongside it. With your knees bent, grip the object firmly with both hands. Keep your back straight and vertical and your chin, elbows, and arms tucked in tight. Then, with your body weight vertically over your feet, lift with your legs.
- When placing the load on the ground or surface, be sure that your feet are out of the way and lower the load in one motion. Lower the load by bending at the knees and keeping the back straight.
- If the object is either too bulky or too heavy, get someone to help you or get mechanical lift.
- When moving heavy or bulky loads, move in stages and rest between moves.
- When two or more people are carrying a heavy object, be sure to have a signal pre-arranged before lowering or releasing of the load.
- If you lose your balance or cannot maintain the load, try to push the load out and away from your body.
- When two or more people are carrying an object, especially long objects, over a long distance, every person shall face the same direction in which the object is moving.
- To set the load down, stop, place feet apart, and tell the other person or persons helping what you will be doing, the steps that will be taken, and what you expect them to do. Then, with your feet and hands out of the way of any possible injury, lower the load in one motion. Again, remember to keep your back straight and lower the load by bending at the knees.

IMPROPER TECHNIQUE

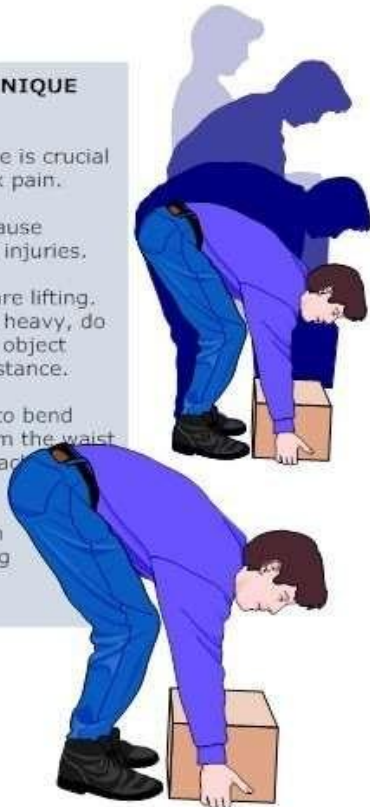
Proper lifting technique is crucial to avoiding lower back pain.

Improper lifting can cause muscle, disc and joint injuries.

Size up the load you are lifting. If it seems too large or heavy, do not attempt to lift the object yourself. Ask for assistance.

Don't stoop, which is to bend forward and down from the waist or the middle of the back.

Do not lead with the shoulders. This action may cause the twisting of the hips.



PROPER TECHNIQUE

Let your lower body do most of the work when lifting heavy objects, for such technique will help prevent low back pain.

First, squat down in front of the object while keeping your back straight and chest forward.

Then tighten your abdominal muscles as you unbend your knees to lift straight up.

While lifting, take caution to keep the object you are lifting as close to your chest as possible.

Keep shoulders and hips aligned in the same direction.



6.2 PIPE HANDLING AND STORAGE:

- 6.2.1 When handling pipe, use a clear communication system.
- 6.2.2 Pick up and lay down the pipe in unison.
- 6.2.3 When handling pipe by mechanical means, personnel will stay clear of the load.
- 6.2.4 When handling pipe by mechanical means do not put fingers or hands into the ends of the pipe.
- 6.2.5 Keep feet away from pipe when pipe is lowered or picked up.
- 6.2.6 Keep the pipe racks in an orderly and safe condition.
- 6.2.7 The space around pipe racks shall be kept clear of obstruction.

6.2.8 Pipe racked on ground racks shall not be racked higher than 8 feet above rack sills

6.2.9 Do not park vehicles near the loading or unloading areas.

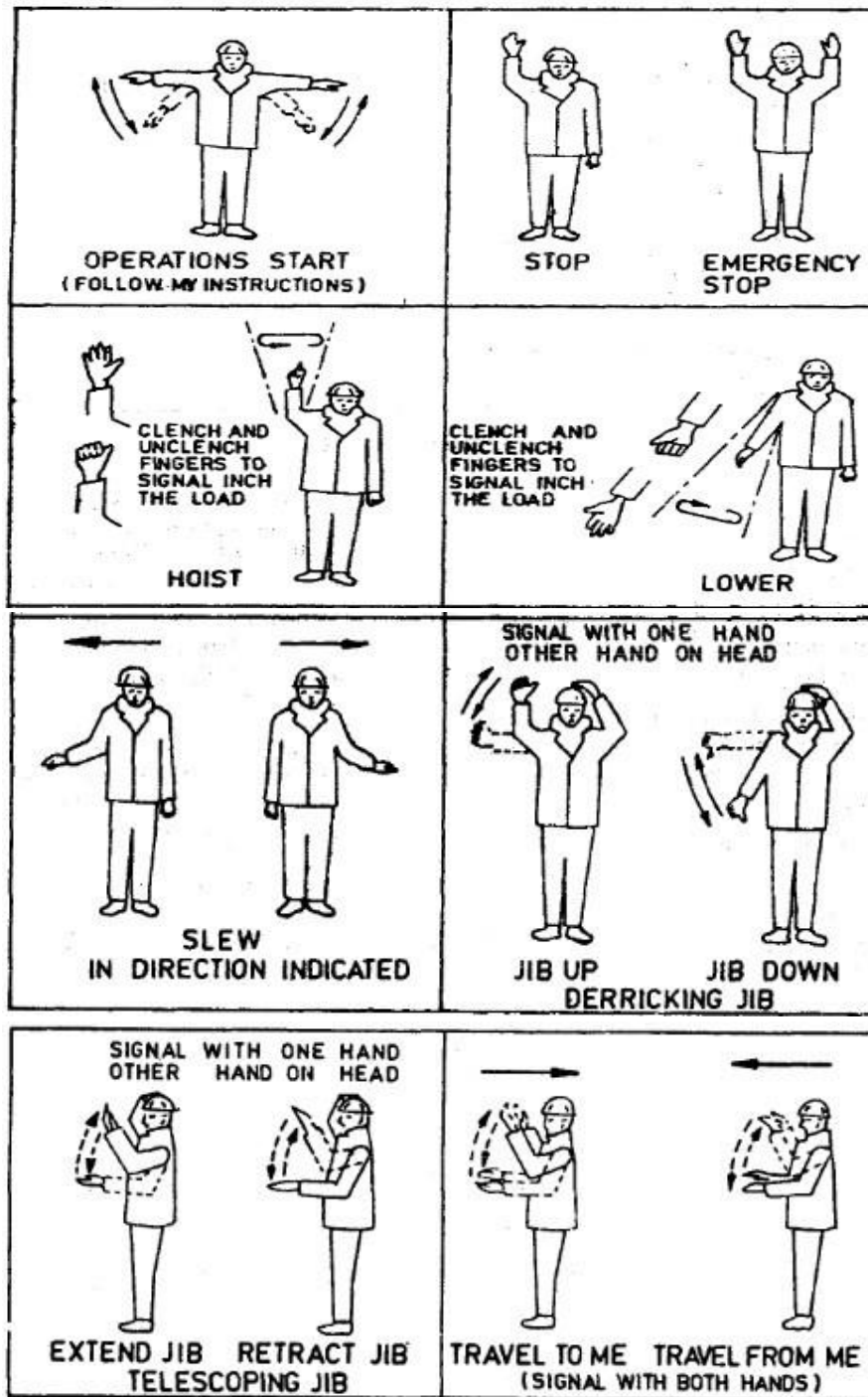
6.2.10 Do not walk on pipe racks that have not been secured.

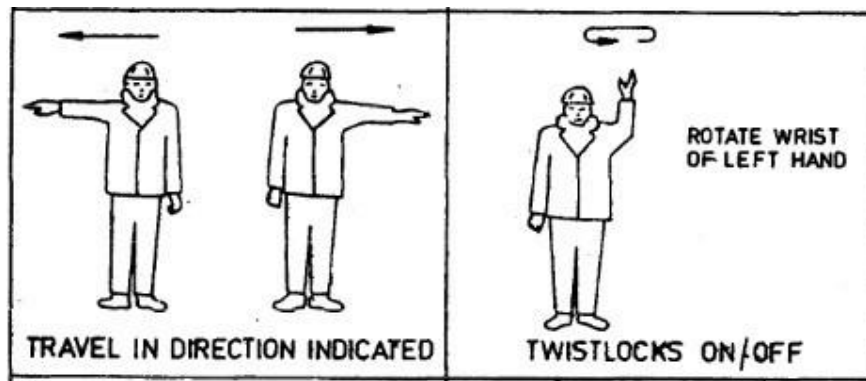
7. PROCEDURES FOR MATERIAL HANDLING THROUGH CRANES/HYDRA

S.No	Action Items	Responsibility
1	Only authorized and competent people are allowed to use hydra/crane and should have valid driving license.	Store In-charge
2	Maintain record of drivers training and experience.	Store In-charge
3	Ensure all current load test certificates for lifting gear should be available.	Store In-charge
4	Ensure safe working load charts shall be available. It should be prominently displayed to the driver. A crane shall not be loaded beyond its rated load capacity for any reason except test purposes.	Store In-charge
5	Ensure check for significant repairs and modification to the crane including renewal of major parts.	Store In-charge
6	Ensure spark arrest is fitted on the exhaust of the vehicle.	Store In-charge
7	Ensure reverse horn of the vehicle is available and working.	Store In-charge
8	Every load lifted by a crane shall be well secured and properly balanced in the sling or lifting device before it is lifted.	Store In-charge
9	To prevent swinging of a load, the hook shall be brought directly over the load when the attachment is made.	Store In-charge
10	In case of nearby electrical cable, ensure 15m distance is maintained from overhead electric lines.	Store In-charge
11	Check the conditions of tires on wheel mounted cranes and in good conditions.	Store In-charge
12	Check the proper functioning of all brakes prior to lifting.	Store In-charge
13	Ensure operator of a crane shall avoid carrying loads over other personnel.	Store In-charge
14	Ensure no employee is permitted on the load, hook, or lifting device while hoisting, lowering, or traveling	Store In-charge
15	In no case, cranes should be left unattended even for shorter periods unless loads have been removed from the hook.	Store In-charge
16	Person directing crane movements should be easily identifiable to crane driver by wearing high visibility clothing or other means	Store In-charge
17	Safe working areas around the crane/hydra should be clearly defined.	Store In-charge
18	When loads must be handled in the vicinity of people, extreme care should be exercised and adequate clearances is required	Store In-charge
19	Personnel protective equipment appropriate to the conditions pertaining to the location of the crane should be provided to all	Store In-charge

	personnel working on.	
20	Safe means of access and emergency escape should be provided and maintained in good conditions.	Store In-charge

Mobile Crane Hand Signals:





Annexure -I

Cranes and Lifting Tackles Inspection Checklist			
Store/Site Name:		Date:	
D/L No. (Truck):		D/L No. (Crane):	
Inspection by:			
No.	Checklist points	Yes	No
1	Is the Delivery Challan Quantity is in accordance with Purchase Order Quantity?		
2	Is the Driver carrying a valid Driving License in accordance with Class of Vehicle?		
3	Has the Spark Arrestor been attached to exhaust of the Vehicle?		
4	Are the Labour Wearing all the required PPE's?		
5	Is examination of hoists and lifts, lifting machines, chains, wire ropes and lifting tackles is done and found OK ?		
6	Is the safe working load (SWL) marked in cranes, slings and shackles?		
7	Are people kept out from under moving loads?		
8	Are crane/heavy equipment's booms kept clear off power lines all times? A clearance of 3mtrs to be maintained?		
9	Are slings, chains, pulleys and hooks inspected and found OK?		
10	Are all equipment properly lubricated and maintained?		
11	Is it ensured that the crane/heavy equipment outrigger is extended and placed on firm, wooden place before start of lift?		
12	Before a start of lift, are the factors such as boom length, hitch angle factor, SWL of crane and tackles considered?		
13	Does the equipment have valid fitness certificate?		

14	Does the crane operator possess a valid heavy license and is experienced to carry out crane operations?		
15	Are all the tests like deflection test, overload test, limited switches, correctness of all circuits and interlocks, satisfactory operation of all protective devices, done regularly and certificate available for verification?		
16	Is reverse horn available and working?		
17	Can the Person employed to operate crane, forklifts, or to give signals to crane demonstrate that they can see signals?		