

General Safety Rules:

Please read the general safety conditions before starting the job. You shall abide by the terms and conditions during the execution of the job mentioned in this Work Order. The General Safety conditions are updated from time to time .Vendors shall regularly check for any changes/amendments.

GENERAL SAFETY CONDITIONS

(A) SAFETY CLAUSES FOR GENERAL SITE SERVICES

1. SCOPE OF WORK

1.1. Operational safety is of prime concern the Contractor undertakes and ensures to observe and as well observance by his employees and his sub-contractor's employees all industrial safety norms for working in or around an operational plant and at Site as broadly given in clause (Safety Code-21) of this General Conditions of Contract.

1.2. Site services covering receiving of materials, unloading, storage and subsequent handling at site, preservation, erection, testing, start-up, commissioning and demonstration of performance tests.

The Contractor's scope of work shall include but not limited to the following:

2. Supervision and Job Planning

2.1. The Contractor shall engage required experienced /degree /diploma holder site supervisors with each group of workers for safe and correct workmanship, proper co-ordination of material and site work as per schedule.

2.2. **Supervision** - Contractor shall assign a competent supervisor, satisfactory & acceptable by JUSCO who shall be present at the site during the progress of all work under the agreement and shall ensure safety compliances as stated above in 1.1 and shall be contractor's authorized representative for all purposes under the Agreement. Contractor shall promptly replace a supervisor unsatisfactory to JUSCO but shall not otherwise replace the supervisor during the duration of the work without JUSCO's written concurrence.

2.3 Contractor shall provide a full time, on site, qualified safety officer/safety manager when contractor's manpower reaches 200 employees and above till 1000 employees (please be guided by State factory Rule). The names and bio-data (including qualification) of such persons shall be indicated for review and acceptance of the Contract Owners. Contractor would also depute site safety supervisor, one for every 50 or less number of employees and numbers will increase in multiple of 50 (e.g. If number of employees are 60 then two site safety supervisors are required) to monitor the compliance of safety standard as per contractor safety audit system.

2.4 The Contractor shall provide necessary trained supervisory personnel, staff, skilled and unskilled labour, including electrical personnel with approved license as per The Electricity Act, 2003 and Indian Electricity Rules 1956, as amended from time to time, to ensure that the whole of the erection/ maintenance work is completed safely in all respects within the period specified in the Contract. The Contractor shall ensure, wherever local laws require, that the concerned employees obtain and hold required certificates of competency for their work from the competent authority and that only licensed employees shall perform such specified. The Contractor shall submit the list of their Site Supervisors, Safety Managers and site safety supervisors deputed at Site for supervising the

Plan, execution of jobs and Safety, to JUSCO/Engineer along with their Qualifications and experience.

2.5 Performance tests and Provisional Acceptance:

The Contractor shall carry out the performance tests for the entire plant and equipment as per the terms and conditions given in the General Conditions of Contract and the Technical Specification. Test results shall be furnished to the Contract Owners. On satisfactory completion of the performance tests, the Contract Owners will issue to the Contractor a Provisional Acceptance Certificate.

3 OTHER FEATURES

3.1 Replacement and Insurance:

If any Contract work perishes or become unserviceable including loss or damage from any cause whatsoever due to reasons attributable to the Contractor, during storage and erection of the plant and equipment, the Contractor shall, on demand by the Contract Owners, make replacement or repair at Contractor's cost in such a way to minimize disturbances in the scheduled progress.

If any Contract work perishes or become unserviceable including loss or damage, due to reasons not attributable to the Contractor, Contractor shall, on the request by the Contract Owners, repair or replace such parts and be entitled to payment from Contract Owners of the corresponding cost incurred by the Contractor to do so as mutually discussed and settled. For coverage under Workmen Compensation Act, the Contractor shall take Group Personal Accident Policy, covering death and full or partial permanent disablements of the Contractor's staff and workman at Site. The Contractor shall take Third Party Liability Insurance; the limit for the same shall be Rs 5.00 lakhs for both personal and property damage for single occurrence. The Contractor shall submit copy of insurance policies taken by him to the Contract Owner.

3.2 Accident or Injury to Workmen:

The Contractor shall arrange Workmen's Compensation insurance covering all his employees/sub-contractor's employees engaged in the performance of this contract. The Contract Owners will be opted as co-assured under this policy by incorporating endorsement "Contract Owner's interest protected" and a waiver of subrogation clause will be included in the policy.

3.3 Covering for Contractors tools, tackles etc:

The Contractor shall at his cost effect necessary insurance for all the plant(s), equipment(s), tools, tackles, or any other assets owned by the Contractor/subcontractor/employees used for the Job/job constructions and the Contract Owners shall have no responsibility for loss or damage to such property.

3.4 Automobile Insurance:

The Contractor shall at his cost have or arrange to have Comprehensive Automobile Insurance cover with own damage cover and unlimited third party liability coverage for death, bodily injury and third party liability coverage for property damage with minimum limit of Rs 7.5 Lakhs caused by the vehicles owned, hired or used in connection with the execution of the Contract.

3.5 Any other Insurance required under Law:

Contractor shall at his cost carry and maintain any and all other insurances which may be required under any law or regulation from time to time without any extra cost to the Contract Owners.

3.6 Insurance Evidence:

The Contractor shall provide satisfactory evidence to the Contract Owners prior to the start of work at the site so that insurance required under the contract have been effected and shall within 30 days of commencement date provide the insurance policies to the Contract Owners. Such insurance policies shall be consistent with the general terms agreed. The Contractor shall affect all insurances for which he is responsible on the terms approved by the Contract Owners.

3.7 Miscellaneous:

The Contractor shall notify the insurer of changes in the nature, extent or programme for the execution of the works and ensure the adequacy of the insurances all times in accordance with the terms of the contract and shall, when required, produce to the Contract Owners the insurance policies in force and the receipts for payment of the premiums for the current policies. The Contractor shall renew and maintain the policies throughout the contract period.

If the Contractor fails to effect and keep in force any of the insurances required under the contract or fails to provide the policies to the Contract Owners within the required period then and in any such case without prejudice to the liability of the Contractor/sub-contractor hereunder the Contract Owners may effect and keep in force any such insurances and pay any premium as may be paid and recover the same plus 10% of the premium as service charge from any amount due or becoming due to the Contractor, or recover the same as a debt due from the Contractor.

The Contractor shall append with each bill presented by him for payment, a certificate to the effect that insurance policies as required under the contract have been affected and are kept valid. This certificate shall give details of the insurance Company, Policy No., types of policy, extent of cover and date of expiry.

3.8 Availing insurance policy / policies by the Contractor shall not be construed as relieving the obligation of the Contractor described under indemnity clause

4 GENERAL CONDITIONS FOR SITE WORK

4.1 Approval Requirement –

Equipment, tools, personal protective equipment, etc that has been approved by an internationally recognized agency such as ANSI, API, UL, Factory Mutual or Equivalent IS Standard and also duly approved by JUSCO/Engineer.

4.2 General Direction of work:

JUSCO shall have the right, without contacting the Contractor, to immediately stop any work that, in the opinion of the JUSCO employee, has fatal potential without penalty to JUSCO. JUSCO will immediately report the situation to the Contractor for correction. Work will remain stopped until work conditions are made safe.

5 RESPONSIBILITY FOR PERFORMANCE OF CONTRACT

5.1 Subletting –

The Contractor shall not sublet subcontract, transfer or assign the Contract or any part thereof without the written permission of the Contract Owners, except as stipulated otherwise in the Contract and/or for purchases from approved Vendor's list. In the event of the Contractor contravening this condition, the Contract Owners shall be entitled to place, the Contract elsewhere on the Contractor's account and at his sole risk and the Contractor shall be liable for any loss or damage which the Contract Owners may sustain in consequence or arising out of such placing of the Contract.

5.2 Subcontracts –

Subcontracting or the hiring of others by contractor to perform the services herein is conditioned upon obtaining specific, prior approval by JUSCO. Such approval shall be conditioned upon compliance with the following minimum conditions:

- (a) Contractor shall be fully liable and responsible to JUSCO for the acts and omissions of its subcontractors and shall not be relieved of any obligation to JUSCO under this agreement.
- (b) Contractor shall only use subcontractors of demonstrated experience and reliability as to the services to be provided.
- (c) Subcontractor agrees in writing to be bound by all obligations of contractor set forth in these general conditions.

6 TYPE, QUALITY OF MATERIALS AND WORKMANSHIP

6.1 Codes and Standards:

Codes and standards referred to in the Technical Specification shall followed. Other codes and standards may be followed, with the prior approval of the Contract Owners/ Engineer, provided materials and equipment according to those standards are equal to, or better than the corresponding standards specified in the Technical Specification.

6.2 Statutory Enactment Governing the Work:

The Contractor shall execute the Contract, in accordance with the rules, regulations and enactment of Central Government and State Government governing such supplies and codes and standards as applicable. This shall not be construed as relieving the Contractor from complying with any requirements of the designs and Technical and General Specifications which may be more rigid than but not contrary to the above mentioned rules etc. nor from providing such supplies as may be required by the above mentioned rules and regulations, even though it may not be shown in the designs and Technical and General Specifications. In case of variance of the designs and Technical and General Specifications from the laws, ordinance, rules and regulations governing the work, the Contractor shall immediately notify the Contract Owners and Engineer and obtain instructions before proceeding on with the concerned supply. It is however, the sole responsibility of the Contractor to determine that such variation exists.

Wherever required by regulation, the Contractor shall also obtain, at his own cost and expense, the statutory authorities' approval for the Plant and Equipment designed, manufactured and supplied by the Contractor. This shall include but not be limited to approval of Boiler Inspector for steam related

items, approval of the Inspector for Weights and Measures for all weighing equipment, approval of Controller of Explosives and approval of other statutory authorities for related items.

6.3 Working in and/or around an Operating Plant and Co-operation with Contract Owner's Operation Department.

6.3.1 Where the work is being carried out in and /or around an operating plant and plant under operation is required to run uninterrupted, the Contractor shall only work at specified places and times as mutually agreed between the Contractor and the Contract Owners. The Contractor shall fully co-operate with Contract Owner's operation department so as not to impede the production of Contract Owner's existing plant in any way and accordingly shall plan as well as carry out erection, testing, start-up and commissioning work in a co-coordinated manner.

6.3.2 The Contractor shall take sufficient care in moving his constructional/erection plant and equipment from one place to another in an operating plant so that they may not cause any damage to the property of the Contract Owners and in the event of the Contractor's failure to do so, the cost of repairing such damages is to be borne by the Contractor.

7 ADDITIONAL CONDITIONS FOR COMPLETE ERECTION SERVICES

The Contractor shall execute the work as per the conditions stated herein below:

General Obligations

7.1 Working Hours:

The Contractor shall observe the normal working hours (8 hours) of t Owners for working at Site. No work during Sundays and other locally recognized holidays and during night shall be carried out by the Contractor without the written permission of the Contract Owners/Engineer. With the exception that, when carrying out the work is unavoidable or necessary for the saving of life or property or for the safety of the erection work, the Contractor shall carry out such work and shall immediately inform the Contract Owners/Engineer to that effect with overtime compensation as per the factory rule/ guidelines.

7.2 Accident or Injury to Workmen

- The Contractor shall be solely liable for any accident or injury that may happen to any of his personnel engaged in connection with the work according to the Contract. The Contract Owners shall not be liable for, or in respect of, any damage or compensation payable at law in respect of, or in consequence of, any accident or injury to any personnel in the employment of the Contractor or any of his sub-contractors and the Contractor shall indemnify and keep indemnified the Contract Owners against all such claims, damages, compensations and proceedings, cost, charges and expenses whatsoever in respect thereof or in relation thereto.
- The Contractor shall forthwith report to the Contract Owners/Engineer all cases of accidents to any of his personnel and shall make every arrangement to render all possible assistance and aid to the victims of the accident.
- Although contractor must arrange for first-aid treatment, JUSCO may provide first-aid to contractor's employees, in consideration for which contractor, its successors and assigns assume full and complete responsibility and liability for all injuries and damages to any of its employees arising out of or allegedly attributable to such first-aid treatment. Contractor, further, shall indemnify and save harmless JUSCO & its employees, contractors successors and assigns from any and all actions, rights of action, suits, debts, claims, damages, expenses and demands with respect to or on account of any injury to or the death of any employee of contractor attributable to or in connection with the performance by JUSCO of such first-aid treatment whether or not such injury of death is caused by or alleged to have been caused by the negligence of JUSCO. Nothing contained herein shall be construed as imposing any duty upon JUSCO to provide first-aid treatment to contractor's employees.

8 COMPLIANCE WITH STATUTORY AND OTHER REGULATIONS

8.1 The Contractor shall, in all matters arising in the performance of the Contract, conform at his own expense with the provisions of all Central or State statute, Ordinances, Acts, rules, regulations, Laws or bye laws of any local or other duly constituted authority and shall keep the Contract Owners indemnified against all penalties and liabilities of every kind for breach of any such statute, ordinance, act, rule, regulation, law or bye- law.

8.2 In the event of an emergency drill that requires the contractor to stop work, the Contract Owners shall bear no financial obligation to the contractor for lost production.

9 SAFETY AND HEALTH

9.1 Safety and Health - Contractor shall:

9.1.1 Comply with all central, state and local regulations, provisions of the "JUSCO Information and Instructions for Contractors" and such other special safety provisions, JUSCO's Safety Standards

9.1.2 Designate one person to be responsible for carrying out Contractor's obligations under this clause

9.1.3 Promptly report to JUSCO about cases of death, occupational disease and any other injury caused by work on the job;

9.1.4 Maintain an educational program to assure the inclusion of safety instructions as part of job assignment;

9.1.5 Arrange for first-aid treatment in case of job incurred injuries.

9.1.6 Ensure that no job is carried out without preparation of Safe Work Procedure approved by JUSCO Officer. Ensure training to all workmen on Safe Work Procedure in prescribed format.

9.2 If JUSCO notifies contractor of any noncompliance with provisions of this article and the action to be taken, contractor shall immediately make all reasonable efforts to correct the existing condition(s). If contractor fails to do so, JUSCO may stop all or any part of the work hereunder. When satisfactory corrective action has been taken by contractor, instruction to restart the job will be issued by JUSCO. No part of the time lost due to any such work stoppage shall be made the subject of claim for a.) Extension of time and change in LD clause b) Additional cost or idle charges c) Any damages by the contractor.

10 JUSCO Information and instructions for Contractors — This document will contain information such as specific performance safety standards in areas such as orientation requirements, barricades, fall protection, rigging, fire protection, housekeeping, etc. This document becomes enforceable having been referenced in contract. Proof of learning, as approved by JUSCO, will be furnished to the Contract Owners prior to mobilization of the contractor's workforce.

11 Orderliness and cleanup — The site shall be kept free of waste as the work progresses and on completion left "broom clean". Work areas will be kept level and free of tripping hazards. In case of dispute, JUSCO may remove waste at contractor's expense. In order to comply with JUSCO's requirement for overall job, physical orderliness, contractor's tools, equipment and materials furnished for or associated with the work shall be so placed and maintained as to permit unobstructed access to the work and to *minimize* exposure to personal injury or fire loss. Equipment placement and material storage shall be at Locations approved by JUSCO. Contractor shall provide approved waste receptacles and provisions shall be made for prompt removal of waste.

12 Hazards - As there may be hazards involved in providing the services hereunder, contractor shall perform all services in a careful workmanlike manner and in the event that the services to be provided hereunder involve processing, handling, transporting, storage or disposing hazardous materials or products, shall take all precautions necessary to avoid an unhealthy or unsafe work environment, injuries to persons or damage to property or the environment

13 The Contractor shall be responsible for the provision of safety arrangements and protective clothing for all his workmen on Site whether engaged in actual execution of work or supervision thereof. He shall ensure that all his workmen on Site use safety belts, gloves, helmets, masks etc as are necessary or as required by the Contract Owners for the safety of contractor employees. The Contractor shall also be responsible for safety arrangements of all equipment used by him in connection with the erection and transportation work and shall employ only trained operators to man the erection and transportation equipment. The Contractor shall use only tested equipment, tools, wire ropes etc and shall periodically renew tests to satisfy the requirements of good working condition. Safety equipment shall be of an approved international / equivalent type.

14 Contract Owners reserves the right to deny entry into its facility to any person who he finds unfit, unsuitable or unwilling to comply with any safety requirement as noted herein.

15 Damage to Persons or Property –

The Contractor shall indemnify and keep indemnified the Contract Owners against all losses and claims for injuries or damages to any person or any property whatsoever which may arise out of, or in consequence of, the Work at Site carried out by the Contractor and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

16 Contract Owners not Liable for Loss or Damage to Constructional / Erection Plant:

The Contract Owners shall not at any time be liable for the loss of, or damage to any of the Construction/ erection / equipment, Temporary equipment or materials which have been brought to the site by the

17 Pollution - The Contractor shall not dispose or dump in any water-body or on its foreshore any rubbish, debris or any other material. The Contractor shall also not interfere with, damage, reduce, terminate or pollute any existing water supply. Should the Contractor by any of his operations pollute, discolour, reduce or injuriously affect any water supply, he shall be entirely responsible for any consequence arising there from and shall immediately take such remedial measures as the Contract Owners or the Engineer may instruct.

18 Site to be cleared on Completion of Work - During the complete erection services, the Contractor shall at all times keep the working and storage areas used by him free from accumulation of waste materials and/or rubbish. Immediately after the completion of erection, the Contractor shall remove or dispose of all temporary structures which are no longer required for start-up and commissioning and dispose waste, debris, rubbish etc. at specified location mentioned by JUSCO and leave the Site in clean and a workmanlike condition to the satisfaction of the Engineer. No final payment and settlement of accounts shall be considered to be due to the Contractor till such Site clearance has been affected by the Contractor.

19 Observance by Sub-contractor –The Contractor shall ensure and be responsible for the observance of the provisions contained in the above clauses here of by any sub-contractor employed by him in the execution of contract.

20 LABOUR WELFARE

20.1 Labour Camps –

The Contractor shall, at his own expense, make adequate arrangements for housing, supply of drinking water and provision of sanitation facilities for his staff and labour and disposal of sewerage and sullage. Suitable site on the Contract Owner's land, if available, may be allotted to the Contractor at the sole discretion of the Contract Owners for the erection of labour camps/site office on such terms and conditions as may be prescribed by the Contract Owners. All camp sites /site office shall be maintained in clean and sanitary condition by the Contractor at his own cost.

20.2 Infectious Diseases –

The Contractor shall immediately withdraw from the Site any workman who may be found to be suffering from an infectious disease.

20.3 Medical Facilities at Site –

The Contractor shall provide adequate medical facilities at the Site to provide first-aid treatment in the case of any injury to his or his sub-contractor's workmen at Site.

20.4 Use of Intoxicants –

The sale or disposition of ardent spirit, drugs or other intoxicating beverages at the Site or in any of the buildings, encampments or tenements owned, occupied by, or within the control of the Contractor or any of his employees or sub-contractors is forbidden and the Contractor shall secure strict compliance with this condition.

Contractor shall advise its employees and of its subcontractors and agents that

(1) It is the policy of JUSCO to prohibit use, possess, sell, manufacture, dispense and distribute drugs or other controlled substances on its premises and to prohibit the presence of an individual with such substances in the body for nonmedical reasons in the workplace

(2) Entry onto JUSCO property/Work site constitutes consent to an inspection of the contractor person, vehicle and personal effects when entering while on, or upon leaving JUSCO property/Work site and

(3) Any contractor employee who is found in violation of the policy or who refuses to permit inspection may be removed or barred from the property/work site at the discretion of JUSCO

20.5 Provisions of Contract Labour Act –

In respect of all labour, directly or indirectly employed by the Contractor for the complete services, the Contractor shall be fully responsible to comply with and fulfill the provisions of the Factories Act 1948, Contract Labour (Regulation and Abolition) Act, 1970, Building and other construction workers Act and relevant Cess Act, Shops and Establishment Act or any amendment and/or future amendments thereof, and all legislation and rules of the State and/or Central Government or other local authority, framed from time to time governing the protection of health, sanitary arrangements, wages, welfare and safety for labour employed on the erection work. The rules and other statutory obligations with regard to fair wages, welfare and safety measures, maintenance of registers etc will be considered to be part of the Contract.

20.6 Provisions of Workmen's Compensation Act –

The Contractor shall at all times indemnify and keep indemnified the Contract Owners against all claims for compensation under the provisions of the Workmen's Compensation Act, 1923 (VIII of 1923), or any other *law* for the time being in force for, or in respect of, any workman, employed by the Contractor or by any of his sub-contractors in carrying out of the Contract and against all costs and expenses or penalties incurred by the Contract Owners in connection therewith. In every case in which, by virtue of the provisions of said Act, the Contract Owners is obliged to pay compensation to a workman employed by the Contractor or by his sub-contractors in executing the Contract, the Contract Owners shall recover from the Contractor the amount of the compensation so paid and, without prejudice to the rights of the Contract Owners under the said Act, the Contract Owners shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Contract Owners to the Contractor, whether under this Contract or otherwise. The Contract Owners shall not be bound to contest any claim made against him under the said Act, except on the written request of the Contractor and upon his giving to the Contract Owners full security for all costs for which the Contract Owners might become liable in consequence of contesting such claim.

21 SAFETY CODE

The Contractor shall adhere to safe construction practices and guard against hazardous and unsafe working conditions and shall comply with safety rules as set forth herein. The Contract Owners reserve the right to take any appropriate punitive action, in case there is a fatal accident for reasons solely attributable to the Contractor involving his employees or due to his employees.

21.1 Safety training - No person shall be deployed at work place/Site without Safety induction Training. The safety card should be with the workmen at all the time and same should be produced on demand at any time.

21.2 The Contractor's employees must use shoes, helmets, hand gloves, safety belts, safety goggles and all other safety appliances while working at site, The Contractor shall be aware that his employees have to work in safety hazards in work site, as for example, presence of poisonous gas, frequent passage of vehicles, loco, simultaneous activities carried out by various agencies in a congested area etc. and plan and execute his work accordingly.

21.3 The Contractor shall undertake full responsibility for safe execution of job at work place/Site and safety of its personnel from the time he reports for duty & till he leaves after his duty. The Contractor shall abide by and shall ensure 100% compliance of the various statutory rules of the Government and safety rules & regulations being issued by the Governmental authority and the Contract Owners from time to time in this regard, and/or as required by the Engineer, in respect of all staff and labour engaged for the execution of the Work at work place/Site and shall provide all the facilities in connection therewith. The Contractor shall ensure that necessary safety appliances are being used by his employees and workers working at Site, without which the employees and the workers shall not be permitted to work.

21.4 Before taking up any job in gas hazardous areas the concerned staff of the Contractor and particularly their supervisors must attend the gas safety induction programme. The Contractor shall also obtain a proper Work permit/clearance/prior permission from the Operating Department before starting the work in a running plant/pipe lines/ gas lines/air lines/water lines/hazardous areas/ and for working on shut down days etc. Contractor shall keep the concerned Departmental Head informed well in advance if the work is to be carried out on Sundays/National Holidays/Shut down days or in night. Safety Supervisor must talk and explain about job hazard daily before starting the work and shall adopt the safety measures accordingly.

21.5 The Contractor shall carry out regular safety inspection at the work site to ensure that all safety measures are being properly maintained/ followed and maintain a record of observations made and corrective actions taken. He shall also carry out Load test on erection equipment, tools and tackles etc., from time to time and maintain a record of the test result

21.6 All requirements of safety such as coupling guards, belt, pulley and chain guards, screens and protection railings etc., shall be provided by the Contractor for his erection equipment. Such guards shall have normally hinged cover for inspection.

21.7 The Contractor shall submit to the Contract Owners the name of a 'key Person' from his organization who shall (a) be fully responsible for safety of persons (b) ensure safety practices during the execution of the Contract. The Contractor shall engage adequate number of skilled & unskilled labour and supervisor on the job to execute the work in a safe way.

21.8 Safety Supervisor of the Contractor shall have to attend the Safety Meetings conducted at site by the Contract Owners. He will have to keep himself as well as their workmen informed about the points discussed in the meetings and will have to implement the same at work place/Site to ensure the safe execution of the job.

21.9 The Contractor shall understand the work, analyze the job safety and prepare the job safety and house keeping plan/ procedure. The Contractor shall monitor the plain procedure regularly and adhere/ improve the plan procedure, if required, for safe execution of the Contract.

21.10 A proper register/document containing names and designation of workers to be maintained by Contractor for the workmen trained by the Contract Owners.

21.11 Upon award of the Contract, the Contractor shall sign a safety/OHSAS Memorandum of Understanding with the Contract Owners for safe execution of the contract/ordered work. The payment to the Contractor shall be on the basis of a Safety Performance Statement to be given by the Safety Department.

21.12 After alignment of all the drives, the Contractor shall provide locking arrangement of these drives as well as bearing wherever shown by the Engineer.

21.13 Fixing of the limit switches at the correct position will involve certain steel fabrication and erection of minor nature which is also part of the Contract.

21.14 All minor site rectification and modifications of fabricated steel work required to be done for erection or access, including fabrication and erection for temporary supports shall be carried out by the Contractor within the contract prices.

21.15 The Contractor shall arrange for preassembly of all the parts for the electrical, hydraulic and other mechanical equipment before final assembly if required and as per instructions of the Engineer at site.

21.16 The Contractor shall check and examine all parts of the equipment. All parts which the Engineer considers desirable shall be opened, cleaned, checked and refitted. The Contract Owners will supply all parts required to be replaced free of cost other than parts damaged due to careless handling/storing by the Contractor which shall be replaced by the Contractor at his own cost.

21.17 Any minor modification or incidental work on equipment, essential for putting these equipment into successful operation, shall be taken up by the contractor as instructed by the Engineer. If required, the equipment or components shall be dismantled and transported to JUSCO's designated/authorized/approved workshop/location and bring back and refitted by the contractor.

22.0 ENVIRONMENT/OHSAS REQUIREMENTS:

In line with the requirements of ISO-14001/ OHSAS 18001, the Contractor shall comply with the following:

- Each and every Contractor engaged, shall maintain the up to date training certificate for their employees. The training shall be provided by JUSCO/ JUSCO authorized agency during safety induction program prior to start of the job and job specific training at the executing sites by contract owners
- Any earth excavated during the job shall be disposed off in a pre assigned place. Contractor shall take preventive steps to avoid spillage of earth/debris during transport /dumping.
- Maintain a clear work area in and around the work place.
- Ensure optimum use of water and avoid misuse/wastage.
- Ensure that the vehicles used by the Contractor meet the emission norms specified as per law .
- Ensure that the vehicles used by contractor shall comply to Motor Vehicle Act (Year??).
- These are being checked by Contract Owner's safety & APS department.

23.0 SOME OF THE SAFETY ISSUES TO BE COMPLIED BY CONTRACTORS FOR SITE WORK

23.1 Prior to beginning work, Senior Contractor Executive must appear before JUSCO's Representative to present plans to accomplish work safely.

23.2 Contractor has to provide dedicated and qualified safety resources to all JUSCO Job /constructions undertaken by them

23.3 Contractor's written safety vision should be in line with JUSCO's safety vision as a part of the Contract.

23.4 Contractor's safety systems, policies and controls will be equally applicable to all subcontractors engaged by them. Contractor will provide undertaking on its letter head documentation that all safety provisions of this contract have been conveyed to the subcontractor and all safety requirements have been met.

23.5 Contractor must provide JUSCO with a list of safety programmes and initiatives they will place in effect to improve performance. Contractor and JUSCO will reconcile any differences suitable to JUSCO.

23.6 Contractor will develop safety plans for all segments of work and have them available for review at all times

23.7 Contractor must submit to JUSCO copies of all completed safety documents specified in contractors safety manual. Examples: Daily Job Briefing, Safety Equipment Inspections, SWPs etc.

23.8 Disciplinary action to Contractors and their employees for safety violation will be decided by JUSCO and it will be binding to the contractor and their employees.

23.9 Senior Contractor Executive will meet with all employees and employees of subcontractor prior to beginning work on every Job/construction subject of meeting will be safety expectations and consequences of not meeting expectations.

23.10 Contractor must conduct a weekly safety progress review. The review will include as a minimum - current audit results, injury/illness summary, safety meeting(s) summary, hazard reviews of upcoming work, near-miss investigations.

23.11 Contractor must conduct weekly safety briefings and audits. Contractor will provide supervisor and safety personnel to accompany JUSCO safety audits.

23.12 Contractor must provide descriptions of safety roles & responsibilities for all Job/construction managers and supervisors (i.e. conduct safety meetings, audit participation, safety work plans, etc).

23.13 Contractor shall comply with all aspects of the Gas Act to include but not limited to

- Upright storage of compressed gas bottles
- Proper transportation and handling of gas bottles
- Caps for bottles which are not in use
- Use of approved flash back arrestors
- Limiting accumulation of bottles to five or less in one area
- Inspection of and proper maintenance of regulators, torches and hoses. Proper lighting technique.

23.14 JUSCO shall approve job made supports, work decks, ladders or tools for use. Job made supports, work decks, ladders or tools shall be marked appropriately according to JUSCO's procedures.

23.15 Compressed breathing air cylinders shall be accompanied by documentation certifying their contents.

23.16 Electricians shall not be permitted to directly contact live un-insulated electrical conductors without JUSCO approval.

23.17 Rebar shall not be used as barricade posts or as structural components of job made ladders or work decks.

23.18 Employees shall be protected from exposed rebar ends by use of protective caps as specified by JUSCO.

23.19 Any work requiring steel erection, including decking and roofing shall require submittal of a fall protection plan prior to beginning work. Such plan will contain a detailed description of fall protection devices.

23.20 Steel erectors shall order permanent stairs and shall install permanent stair ways as each deck elevation is installed.

24.0 The Contractor has to abide by all environmental management systems. Details of Penalties to be imposed on Contractor and Suppliers (vendors) for noncompliance to the Environment Management System (EMS) will be guided separately by circular. Penalty for safety non compliances will be as mentioned in Annexure **B**.

25.0 INDEMNITY

The Contractor shall be responsible for any fatal or bodily injury to any person whatsoever, as well as for any physical damage to property of Contract Owners other than the Goods, or property of third parties, arising out of any negligent acts or omissions or resulting from any breach of Contractor's obligations under this Contract, including those imposed under any local or national laws applicable to Contractor's Work. Contractor shall indemnify and keep indemnified the Contract Owners against all claims for injuries or damage to property, demands, proceedings, direct damages, charges and expenses to the extent that the Contractor would be directly responsible to the claimant. The Contractor further shall indemnify and save Contract Owners harmless in respect to all salaries, wages or other compensation of all persons employed by the Contractor or his sub-Contractors or suppliers in connection with the performance of any work covered by the Contract. The Contractor shall execute and deliver and shall cause his sub-Contractors and suppliers to execute and deliver such other further instruments and to comply with such requirements of such laws and regulations as may be necessary there under to confirm and execute this Contract and to protect the Contract Owners or his officers and employees.

The Contractor, its directors, employees, successors, assignees, servants, agents or any of them from any claim, demand, course of action, loss, expenses or liability on account of injury or death of persons (including the employees of the Contract Owners/Contractor/Sub-contractor).

Any claim arising out of damage to or loss of property (including the property of the Contract Owners/Sub-contractor) arising directly or indirectly out of the negligent acts, errors or omissions of the Contractor in performance of his obligation under this agreement.

- Any claim by Government authorities/quasi Governmental body for failure by the Contractor to pay taxes, duties, fees applicable to them arising out of the Job/construction.
- Any claim by third party including sub-contractors for failure to make payment for labour services, equipment and materials arising out of this Job/construction.
- Any claim with regard to designs, methods, process including but not limited to claims arising out of infringement of patent, trademark, property information, know-how, copyright, unpatented inventions or any unauthorized use of work.

The Contractor shall defend at his own expenses any suit proceedings for any claim asserted against the Contract Owners. The Contract Owners shall give reasonable assistance required in defending the suit and Contract Owners shall reserve the right to represent his counsel through not obligated to do so. Contract Owners reserves the right to defend/settle the claim if Contractor fails to defend diligently any such suits or proceedings and without relieving the Contractor of his obligation.

Contractor shall at all times indemnify the principal employer against all claims, damages or compensation under the provisions of various Acts applicable such as the Payment of Wages Act 1938, Minimum Wages Act 1948, Employees State Insurance Act 1948, Workmen's Compensation Act 1923, Fatal Accidents Act 1855, Apprentices Act 1961, industrial Disputes Act 1947 and Contract Labour (Regulation and Abolition) Act 1970 etc or any modification thereof or any other Law relating thereto (including common *law*) and Rules made there under from time to time.

The contractor is hereby obliged to sign Indemnity Bond as per AnnexureA.

(B) SAFETY CLAUSES FOR DESIGN, MANUFACTURE AND SUPPLY OF IMPORTED /INDEGENOUS PLANT MACHINERY AND EQUIPMENT WITH AUXILIARIES FOR JUSCO

SCOPE OF WORK AND TECHNICAL SPECIFICATION

26.0 GENERAL

26.1 Contractor's Responsibility for Completeness –

The Contractor shall be fully liable and responsible for completeness of Work, as per Contractor's scope of work in Technical Specification in conjunction with this Contract that include all equipment, to fulfill the functional requirement of Work as a whole and Contractor's aforesaid responsibility shall be construed as included in the Contract price. All items of equipment, whether specifically mentioned or not in the Technical specification but which are necessary for completion of work as per Contractor's scope of work in Technical Specification in conjunction with this Contract and are necessary for proper, efficient, safe and stable construction, operation and maintenance of the work and / or for the fulfillment of the performance

guarantees, shall be supplied or provided or executed by the Contractor without any additional price implication and without any dilution of his liabilities and responsibilities under the contract.

26.2 The Contractor shall, wherever required, furnish his expert advice and handling instructions to the Contract Owners, free of cost in regard to the safe handling, transportation and storage of cargo.

26.3 Information on Over Dimensioned Consignment and transportation requirement.

Contractor shall submit to the Contract Owners, within five (5) months from Contract Effectiveness date, information concerning Over Dimensioned Consignment (ODC) (more than 10 m x 2.25 m 2.25 m, any of the dimensions occurring singly or severally) and specific special requirement of transportation (marine as well as inland) for Contract Owner's making necessary arrangement where the contract delivery term is FOB/Ex-works. They will follow the JUSCO safety standard for transportation of ODC.

27.0 SUPPLY OF OPERATING MANUAL –

Ten (10) copies of operating manuals / instructions shall be supplied by the Contractor/ supplier within two months from the Contract Effectiveness Date, including all details necessary to ensure proper procedure and sequence of operation and safety instructions. One copy of above document shall be delivered along with the relevant consignment.

28.0 TYPE, QUALITY OF MATERIALS AND WORKMANSHIP

28.1 Codes and Standards –

Regularly and generally accepted good engineering practices, Codes and standards shall be followed. Other codes and standards, such as pressure relief codes and alarm/interlock codes referred to in the Contract documents shall be followed. Other codes and standards may be followed, with the prior approval of the Contract Owners/Engineer, provided materials and equipment according to these standards are equal to, or better than the corresponding standards specified in the Contract.

28.2 Contractor to perform all Tests –

The Contractor shall be responsible to perform any and all tests and inspections according to the Contract and as requested by the Contract Owners/his authorized representative, as part of Contractor's obligations under the Contract. The Contractor shall carry out internal inspection of the work for which he is responsible to ensure proper performance and satisfy himself before giving the inspection call to the Contract Owners/his authorized representative. To this end, he shall submit to the Contract Owners/his authorized representative all pre-inspection forms, post inspection reports, test reports and such other documentation in such details as the Contract Owners/his authorized representative may require.

Should the Contractor himself not be in a position to carry out the tests, he shall, on the Contract Owner's and/or his authorized representative's demand, prepare specimens or samples and send as well as test them at his *Own* cost at such testing stations as the Contract Owners and/or his authorized representative may specify.

Should a part of the Plant and Equipment be not manufactured at the Contractor's own premises but on other premises, the Contractor shall likewise obtain permission from the sub-Contractor for the

Contract Owners and / or his authorised representative to inspect and test the Work as if the said Plant and Equipment were being manufactured on the Contractor's premises.

Prior to testing, contractor shall submit safety procedures associated with on site testing for review and acceptance by the Contract Owners.

29.0 PACKING AND PROTECTIVE PAINTING –

The Contractor confirms that the Plant and Equipment shall be packed in accordance with the norms followed internationally so as to protect the contents from damage during transit from point of manufacture until its arrival at respective delivery point as mentioned in LOI / order, under conditions which may involve multiple handling, ocean shipment, storage under tropical conditions as well as subsequent movement by road transport in India, exposure to heat, moisture, rain etc and possibility of pilferage. Packing shall be of quality suitable for sea transport and for storage in tropical conditions. However, the special precautions out-lined in clauses below shall be followed by the Contractor.

30.0 SAFETY & PROTECTION - All equipment shall be complete with adequate safety and protection devices wherever a potential hazard to personnel or equipment exists. These safety items shall include not only those usually furnished with elements of machinery but also take care of various additional safety factors required for safe operation. The suppliers shall indicate and include the complete safety features in their scope and ensure safe and smooth operation and maintenance of the plant. The various safety measures need to be taken by the supplier shall broadly include the followings:

30.1 Supplier shall identify all necessary hazards arising out of the equipment operation during the process and provide safety precautions with the equipment itself. This shall be accomplished by a documented Process Hazards Analysis (PHA). PHA shall consist of a process hazards review consisting of potential hazards, failure analysis, ergonomic issues, engineering controls and human controls to prevent failure.

30.2 All necessary safety alarms, interlocks shall be provided with the equipment according to safety standards as supplied

30.3 Relief devices shall be furnished according to the standards. Calculations for each relief device shall be furnished to JUSCO prior to commissioning.

30.4 Fire suppression systems shall be installed according to NFPA codes

30.5 Pressure vessels shall be constructed and installed according to those codes.

30.6 Each process mechanical, electrical, pneumatic equipment and pipelines shall have positive isolation. [Insert Pipe and Electrical codes] The MCCBs shall be provided with positive isolation as per IEC or shall be drawing out type.

30.7 For electrical system, press to lock/key to release type local lockout type PBs or isolation switches are to be provided near each motor.

30.8 All FIT breakers, LT ACBs, MCCBs and switches are to be provided with locking arrangement [As per electrical codes].

30.9 All electrical breakers control should be provided only in the ECR room.

30.10 Machineries will be provided with additional covers, guards, and handrails etc. which are necessary for safe operation [As per 051-IA and ANSI codes].

30.11 Safe access shall be provided around each equipment for operational and maintenance functions [As per reference to clearance standards].

30.12 The plant and equipment layout shall be developed considering the overall shop logistics so that one way movement of materials, products, etc are ensured [facility sitting standard as per PSRM safety standard].

30.13 Clear visibility to EOT crane operators and Pulpit operators must be ensured.

30.14 Safety features of all the equipment & facilities must be included in the operation, maintenance manual and as per technical specifications.

30.15 Training on safety of plant & equipment shall be imparted under their Training programme.

30.16 The supplier shall be required to demonstrate safe operation and maintenance of the plant

(C) SAFETY CLAUSES : FOR ELECTRICAL CONTRACTS

31.0 Safety terms and conditions for Electrical Contract:

31.1 Safety Supervisor, Job Safety planning & co ordination:

The contractor shall engage adequate number of experienced qualified supervisors with each group of workers for safe & correctly workmanship, Planning, Scheduling, safety & implementation of work as per schedule.

The names & bio data of such persons shall be indicated for review of JUSCO

The contractor shall provide necessary supervisory personnel staff, skilled & unskilled labour, including electrical personnel with approved license as per Indian Electricity Act 2003 and Indian Electricity Rules 1956, as amended from time to time to ensure that the whole of the site work is completed in all respects within the period specified in the order.

All electrical supervisors for the job will be interviewed by concerned senior managers of steel company before deputation on job by the contractor.

Contractor shall ensure that the persons employed for the job having knowledge & experience to do the assigned job. The quality of jobs should be maintained.

Contractor should submit the following certificates of their employees:

1. Certificate for working on height
2. Welder's certificate
3. Health physical fitness certificate of all employees
4. Eye checking certificate
5. Certificate for attending safety training.(contractor employees must posses safety card after obtaining safety training from the concerned agency approved by the Steel company.)

6. Certificate of cable jointer

The contractor shall adhere to safe construction and Maintenance practice and guard against hazardous and unsafe working conditions and shall comply with safety rules.

Safety Training – No person shall be deployed at work place / site without having undergone safety induction training and job specific training at site.

The safety card by JUSCO / its Authorized Agency should be with the workmen at all the time and same should be produced on demand at any time.

The contractor's employees must use all required PPE such a safety shoes, Safety helmet, hand gloves, safety belt (full body harness), goggles and any other safety appliances as applicable while working at site.

All contractor employees must obey road safety norms.

Contractor employees should not take any drug or any other thing that causes intoxication.

Contractor employees should not take rest anywhere other than the resting place provided to them.

No contractor employees shall take rest in work place. If he has got any health related problem, he has to be brought to First Aid Station / Rest Room at the earliest.

The contractor shall under take full responsibility for safe execution of job at work place /site and safety of his personnel from the time he reports for duty till the time he leaves the work place after his duty.

The contractors shall abide by and shall ensure 100% compliance of various statutory rules of the Government and safety rules & regulations being issued by the Government authority.

Contractor should use all the tested lifting tools, tackles and ropes.

The contractor shall ensure that his employees working at site are using necessary safety appliances.

Before taking up any job in gas hazardous areas, the concerned staff of the Contractor and particularly their supervisors must attend the gas safety training. The Contractor shall obtain a proper work permit / clearance / prior permission from the operating department before starting the work in a running plant / pipe lines / gas lines / air lines / water lines / hazardous area / and for working on shutdown days etc. Contractor shall keep the concerned departmental head informed well in advance if the work is to be carried out on Sundays / national holiday / shutdown days or in night. Contractor Safety Supervisor must talk and explain about the job hazard daily before starting the work and shall adopt the safety measures accordingly.

The Contractor must fill up a daily job safety clearance form indicating the work to be carried out, identifying the hazards, safety precautions and the arrangement which need to be taken before actual start of work at Site. Job must not start unless the clearance has been obtained from the Employer / Engineer at Site.

The Contractor shall carry out regular safety inspection at the work site to ensure that all safety measures ARC being properly maintained / followed and maintain a record of observations made and corrective actions being taken. The Contractor will also carry out load test on erection equipment, tools and tackles etc from time to time and maintain a record of the test results conducted.

The Contractor shall depute a person from his organization who shall have (a) be fully responsible for safety of persons (b) ensure safety practices during the execution of the order. The Contractor shall engage adequate number of skill / unskilled labour and supervisor on the job to execute the work in a safe way.

31.2 Safety supervisor of Contractor should attend the safety meetings conducted at site by the Contractor. He will have to keep himself as well as his workmen informed about the points discussed in the meetings and will have to implement the same at work place / Site to ensure a safe execution of the job.

a) **First Aid –**

Contractor supervisor must be trained as first aider. The first aid boxes should contain all necessary medicines & accessories as per JUSCO Standard which are required during emergency Contractor must keep stretcher for carry of your sick injured employees to First aid station.

b) **Fire Safety –**

While attending any job where there is possibility of fire, you must take all precautions such as sand, bucket, water, fire extinguishers at working site. Before leaving the work site you must ensure that everything is ok & there is no possibility of any fire. The fire fighting appliances such as fire extinguisher, water house pipe, sand bucket shall be provided by the Contractor and available at work location during the execution of the job. JUSCO will not provide any such appliances.

c) **Lifting tools and tackles –**

All lifting equipments must be tested as per factory act and the records should be kept and must be produced before the authorized persons as and when it is demanded.

d) **Ladders–**

Only standard ladders should be used and local made ladders should have approval from safety department, The rungs should be clear of oil, grease mud and other contaminants while in use. Extension ladders: should always be equipped with non slip safety shoes. The ladder should always be checked prior to use. Ladders should not be used without the rubber bottom pad to avoid skidding.

e) **Scaffolding –**

JUSCO standard scaffolding should only be used and should be erected as per standard. Be sure to inspect the scaffold before using it. Do not stand on boxes, oil drums or the guard rails to reach your work.

f) **Fall Arrestors –**

Full body harness should be used for safe working, wherever required.

g) **Lock out / Tag out –**

It is required for lock out of various energy sources during the maintenance and servicing of certain equipments. The injury is caused when a worker energized a circuit not knowing that a fellow worker was performing maintenance or service on the equipment. The lock out is accomplished by installing lock out devices at the source energy.

Lock outs / tag out devices are to be removed only by the employee who attached it. All lockout devices / tag out devices should be identified & used only for the purpose for which they are intended.

h) **Flash & Thermal protection**

The extremely high temperatures and heat content of an electric arc can cause extremely painful and / or lethal burns. Since an electric arc can occur at any time, the worker must wear protection when exposed to potential arc hazards.

i) **Use of flash suit**

(Cool coat with head eye protection) - JUSCO will issue these flash guards temporarily when required at site.

j) **Voltage tester –**

Before starting any job on H.T equipment, please be ensure that equipment is dead by help of H.T voltage tester and then discharge the line by earthing discharge rod.

k) **Barriers & Signs –**

Whenever work is being performed which required the temporary removal of normal protective barriers such as panel, or doors, barriers and signs should be used to warn personnel of the hazard.

l) **Barrier tape –**

Barrier tape is continuous length of abrasion resistant plastic tape. It should be a minimum of 2 inches wide and should be marked or coloured to clearly indicate the nature of the hazard to which employee / general public will be exposed if they cross the tape line. Work area should be barricaded using coloured tape. These tapes must be temporarily fixed on proper make stands.

m) **Warning signs –**

Should be as per JUSCO safety Standard. They should be placed in such a way to warn personnel of imminent hazard.

n) **Safety tags, Locks & locking devices –**

Safety tags, locks & locking devices are used to secure & mark equipment that has been taken out of service. They are applied in such a way that the equipment cannot be re-energized without first

removing the tags & / or locks by the person who put it or with the permission of an officer of JUSCO. Positive isolation safety Standard to be followed by all contractors.

o) Safe grounding equipment (Jumpers):

must be used wherever required for safe working - The contractor must follow all safety rules applicable for working in Confined Space. All metallic portable electric equipments must be earthed.

The Contractor Electrical supervisor should hold a valid electrical supervisor's certificate of competency issued by respective State Government

The contractor may be required to carry out the jobs at height and at any location for which he has to make proper scaffolding while working at height or proper safety Harness must be used.

Contractor should display Safety Board at each location of job, mentioning name of the contractor, job details, Order No. , Date of Starting of job, Date of finish, Name of the supervisors & Contractor Telephone No.

For each & every Job, Contractor has to obtain written clearance in prescribed format on daily basis and returns the same at the end of the day. Before starting any job the contractor has to prepare "Safe Working Procedure" and that must be approved by Safety Dept as well as departmental engineer.

REPORTING OF ACCIDENT/INCIDENT –

The contractor shall be responsible for the safety of all employees and / or workmen employed or engaged on and in connection with the works and shall forthwith report all cases of accident to concerned authority.

The contractor shall deploy his safety team at site headed by an experienced safety officer / Steward to ensure safety during the execution of the works.

The Contractor shall understand the work, analyze the job safety and prepare the job safety and housekeeping plan. He shall monitor the plan regularly and adhere / improve the plan, if required, for safe execution of the contract.

Employer reserves the right to black list the Contractor and replace him by his competitor on that job in case there is a fatal accident involving his employees or due to his employees. The Contractor shall not have any objection for the same.

p) Safety Issues to be compiled by Contractor for Site Work:

Contractor must conduct a weekly safety progress review & report to contract owner. The review will include as a minimum - current audit results, injury / illness summary, safety meeting(s) summary, hazard reviews of upcoming work, near miss investigations.

Contractor shall comply with all aspects of the Gas Act to include but not limited to

- Upright storage of compressed gas bottles
- Proper transportation and handling of gas bottles
- Caps for bottles which are not in use
- Use of approved flash back arrestors

- Limiting accumulation of bottles to five or less in one area
- Inspection of and proper maintenance of regulators torches and hoses.

The contractor should follow the procedure for road cutting & its filling:

- i) Clearance must be taken from appropriate authority/Road owners,
- ii) Site to be visited by appropriate authority along with executing agency's supervisors to whom clearance is given.
- iii) Caution boards, fencing, light etc. for traffic safety guards to be arranged before cutting the road.
- iv) Digging to be started in presence of supervisors to whom clearance is given.
- v) Traffic jam to be avoided during working by proper signal arrangement providing diversion or caution boards.
- vi) Materials to be stacked to avoid hazards to traffic
- vii) Barricading and red light to be kept during night for safety
- viii) Compact sand fill with proper watering to be provided over the service line according to depth of the trench.
- ix) Compact cohesive earth fill to a thickness of 6" above the compact sand fill is to be provided.
- x) Compact ballast (recovered from same trench) mixed with cohesive soil to a thickness of average 6" over the compact cohesive earth fill is to be provided.
- xi) Any damage caused to underground utilities / services / nearby structures during road cutting also to be repaired by the agency who is responsible for road cut.
- xii) Final restoration of the road to be done forthwith.
- xiii) While trenching for crossing the road, warning signals shall be provided to caution the traffic at least about 10mtrs. Ahead on either side of the place of work.

If trench is dug by the side of road suitable barricade shall be provided as per Excavation Standard of JUSCO. If the road is 1.5 meters away barrier tape can be provided. Otherwise a physical barricade should be provided.

All installations shall conform to the requirements of the Indian electricity rules as regards safety earthing & other essential provisions specified therein.

All supply items as well as installation work shall be carried out in accordance with relevant standards & code of practice published by the Bureau of Indian standards (BIS) including their latest revisions / amendments.

The contractor has to ensure that no unsafe activity is carried out Any unsafe act on the part of the party and its worker will call for a penalty or even immediate termination of the order.

For each & every job contractor has to make job safety procedure.

Contractor has to use tested quality equipment i.e. all safety appliances & personnel protective equipment, lifting tools & tackles.

Contractor has to keep a register for all safety appliances & PPEs and it should be checked periodically by the competent authority & keeping a proper record.

Contractor supervisor can be the safety steward if the numbers of workers are less than 10 at a site and he should look after the safety of their men & ensure that all safety & EMS norms are followed & execution of the job carried out by following all safety rules.

q) **Environment / OHSAS clauses:**

In line with requirements of ISO-14001 & OHSAS 18001, contractor shall comply with following:

- 1) Contractor shall maintain the up-to-date training certificate of its employees. The training will be provided by safety induction program prior to starting of the job.
- 2) Contractor shall ensure optimum use of water & avoid misuse wastage.
- 3) Contractor shall ensure that its vehicles follow emission and all other statutory norms.
- 4) Maintain a clear work area in and around the work place.
- 5) All vehicles having age more than 15 years should not be used by Contractor

It is mandatory for all contractors to comply with ISO 14001 & OHSAS 18001 norms. Non compliance of the same detected at any point of time may lead to cancellation of the order or any other action or both as deemed lit by JUSCO.

D) Safety in Transportation and Handling

D1. Transportation: All Operators / Drivers / Helpers should have proper valid driving licence. They should have eye examination certificate. They should not come with loose dress. Vehicles should be in good condition with tyres/ body / brake / blinkers / horn / lights in good working condition. The vehicle should possess the fitness certificate as per Motor Vehicles Act and emission certificate as per EMS laws. Materials should not protrude more than 6 feet from the end panel and red flag should be displayed. The power vehicles must have efficient brakes, warning hooters, horn and head and tail lights. The tyres, the body and deck should be good condition. The vehicle should not ply beyond the permissible speed limits. The driver should observe road signage. No one should get up or get down from moving vehicles. No one should sit on the sides of the panels or on the top of driver's cabin. No one should not stand or sit near the load where there is a possibility of shifting or rolling of the load due to sudden application of brakes.

D2. Handling: Materials should be properly loaded considering their weight, dimension, capacity of the carrier and centre of gravity of the load. The load must be properly packed, nudged and lashed before transportation. No materials should be dropped from the vehicles while unloading. Mechanical advantage is to be obtained wherever possible like Mobile crane, Pulley block, Gantry, Fork lift etc.

These should have valid fitness certificates. Tools / slings / ropes used for the job, should be in good condition. All such equipment should be used after proper inspection by competent person. At the time loading / unloading, the vehicle should be parked at proper place with proper packing under the wheels to prevent rolling. The persons engaged in loading should use required safety appliances and personal protective. All unloaded materials should be stacked properly with proper packing. Sufficient space should be provided for safe handling. Stacked materials should also be given proper side supports to prevent falling.

D3. For Over sized / Odd sized materials: Special attention must be given in terms of weight, dimension, capacity of the carrier and centre of gravity of the load. Loading should be done properly spaced wooden battens or pickings should be provided to prevent slipping of load. The materials are to be properly tied with chains, ropes and other devices. No materials should be loaded beyond the panels. If required, side panels should be raised properly. For transporting heavy materials / equipments safe loading capacity to be considered and the height of the same should not go beyond the height of the side panels. A red flag is to be displayed with the materials. A trained helper is to be deputed for guiding the vehicle.

D4. For Hazardous Chemicals: For transporting chemicals / inflammable materials, the container should be in good condition. No one should smoke near the vehicle. The vehicle should be connected with earthing chain to discharge static current. Non-sparking tools to be used for doing any jobs with such vehicles. While loading / unloading from the vehicle, no one should be inside the vehicle or near by. Materials Data Sheets should be available with the vehicles. The driver should be aware of the hazards of the materials and able to take preventive steps in case of any emergency situation. Information regarding important telephone numbers, Precautions in case of any emergency situations to be written on the body of the vehicle.

D5. Transportation and Handling of Chlorine Cylinder

Proper care is to be taken by the Transporter during handling and transportation to avoid any damage to the Chlorine Tonners. It will be incumbent on him to carefully examine the Chlorine Tonners before loading and any damage noticed by Transporter should be shown / notified to Seller and get the same rectified or replaced by Seller. In the event of any damage to or loss of the Chlorine Tonners during transportation, the Transporter shall immediately inform Purchaser and Seller both and shall lodge such reports, complaints, claims in respect thereof with the police, insurance and or any other authority(s) as appropriate and shall keep Purchaser indemnified against any loss including but not limited to consequential losses of any kind including the litigation cost of any kind, which are required to be borne by the Transporter. Loss suffered by Purchaser due to negligence of the Transporter shall be recovered from the Transporter's bills.

On completion of the obligation or on earlier termination of this Contract, final settlement will be made and account will be adjusted accordingly. No obligation shall be deemed as completed until the Transporter has obtained completion certificate from the Purchaser.

DELIVERY: The Transporter shall deliver the Goods at the Project site within 5 (Five) Days from the date of intimation for transportation of Goods. Delivery of the Goods shall be made by the transporter in accordance with the terms specified in the Transportation Clause. The details of Transportation and/or other documents required for transportation are specified in the Contract.

INSURANCE-The Transporter shall arrange for the insurances, covering the risk during loading, transit, unloading of the Chlorine Tonners. All the charges of the insurance(s) shall be borne by the Transporter including the insurance under the Public liability Insurance Act 1991 for transportation of the Chlorine Tonners.

TRANSPORTATION: The Transporter shall deliver the Goods at the Project site. The

ownership of the Chlorine Tonners shall be transferred to the Purchaser on receipt of Goods at the Project site. Transporter shall arrange for unloading the Goods from the truck at the Project Site, and the cost of which shall be included in the Contract Price.

The Transporter shall ensure that all vehicles utilized for the work under the Contract have valid Permit(s) and comply with RTO regulations for load restrictions under Section 144 of Motor Vehicle Act. The Transporter shall comply with any amendment in applicable law which shall including other regulation by statutory bodies. The vehicle so used must be road-worthy.

The Transporter shall ensure that the driver(s) deputed for transportation of Chlorine Tonner(s) should have proper & valid 'Driving License' from the relevant authority to transport the 'Goods'

Transporter shall ensure that there shall be no transshipment of the Chlorine Tonners once they are loaded unless such transshipment becomes unavoidable due to accidents and/or breakdown, details of which, if any, shall be promptly communicated to the Purchaser. Transporter shall not carry any other Goods along with the Chlorine Tonners even if the load offered at a time is less than the carrying capacity of the vehicle.

The Transporter shall comply with all of the obligations, so specified:

- (a) performance or supervision of on-site loading, unloading and transportation of the supplied Goods;
- (b) furnishing of tools required for loading and unloading of the supplied Goods;
- (e) training of the transporting personnel i.e. Driver, Helper along with persons required for loading and unloading, at the site..

INSTRUCTION:

LOADING OF TONNER ON TRUCKS

- a) Load chlorine container on truck with mechanical or electrical hoist.
- b) If above is not available load manually through slanted ramp. Necessary Precautions to be taken during such activity to prevent injuries and accidents.
- c) People loading containers manually should use safety shoes, helmet and gloves.

Loading should be done carefully, in accordance with the standards prescribed under the law and reasonably required to be adhered in transportation of such Tonners. The stacked Tonners should be jammed to prevent any free movement during transportation.

SAFETY IN TRANSPORTATION AND HANDLING

- I. All operators and drivers must have valid driving license
- II. They should have eye examination certificate.
- III. They should not come with loose dress.
- IV. Vehicles should be in good condition including but not limited to tires/ body / brake / blinkers / horn / lights in good working condition. The vehicle should possess the fitness

certificate as per Motor Vehicles Act, emission certificate as per EMS laws or/and any other law relating to the transportation of Chlorine Tonners applicable in India.

- V. Materials should not protrude from the end panel and all the tonners should be inside the panel.
- VI. The vehicles must have efficient brakes, warning hooters, horn and head and tail lights. The tires, the body and deck should be in good condition.
- VII. The vehicle should not ply beyond the permissible speed limits. i.e 40 KM/hr.
- VIII. The driver should observe road signage.
- IX. No one should get up or get down from moving vehicles.
- X. No one should sit on the sides of the panels or on the top of driver's cabin.
- XI. No one should stand or sit near the load where there is a possibility of shifting or rolling of the load due to sudden application of brakes.
- XII. The driver should drive defensively and not indulge in road rage. Preventing road accidents should be the main objective.
- XIII. At no time, the helper should drive the vehicle.

HANDLING: Chlorine Tonners should be properly loaded considering their weight, dimension, capacity of the carrier and centre of gravity of the load. The load must be properly packed, nudged and lashed before transportation. Tonners should not be dropped from the vehicles while unloading. Mechanical advantage is to be obtained wherever possible like Mobile crane, Pulley block, Gantry, Fork lift etc. These should have valid fitness certificates. Tools / slings / ropes used for the job, should be in good condition. All such equipments should be used after proper inspection by competent person. At the time of loading / unloading, the vehicle should be parked at proper place with proper packing under the wheels to prevent rolling. The persons engaged in loading should use required safety appliances and personal protective equipments. All unloaded Tonners should be stacked properly with proper packing. Sufficient space should be provided for safe handling. Stacked Tonners should also be given proper side supports to prevent falling.

For transporting Tonners, the container should be in good condition. No one should smoke near the vehicle. The vehicle should be connected with earthing chain to discharge static current. On-sparking tools to be used for doing any jobs with such vehicles. While loading / unloading from the vehicle, no one should be inside the vehicle or nearby. Materials Data Sheets should be available with the vehicles. The driver should be aware of the hazards of the materials and able to take preventive steps in case of any emergency situation. Information regarding important telephone numbers and precautionary measures to be taken in case of any emergency situations should be written on the body of the vehicle.

INSTRUCTIONS FOR TRUCK DRIVERS

1. Safety training (related to chlorine & chlorine Tonners) should be given to the truck drivers carrying the chlorine Tonners & all attendants travelling in truck. They should have certificate of having undergone safety training by chlorine supplier. The transporter shall demand TREM Card from the supplier and the drivers must undergo training on TREM card by the supplier on what do in case of an emergency.
2. Do not park the vehicle in the sun or in crowded area where the leakage of chlorine can cause catastrophe.
3. Avoid driving the vehicle through thickly populated areas.

4. Chlorine Tonners transported in the vehicle shall be blocked or braced and be secured to prevent movement, striking each other or falling down. Tonners should be transported horizontally & secured to prevent rolling.
5. Do not carry any other article of inflammable or corrosive nature with chlorine Tonners
6. In case of any emergency, inform the police/fire brigade/chlorine supplier. The driver must have emergency phone numbers from the Supplier or otherwise, He should also have the telephone numbers of police and hospitals.
7. If the emergency cannot be tackled then drive the vehicle to an isolated open place so that damage to life and property can be minimized.

D6. GENERAL SAFETY RULES

1. The Transporter should ensure that he and his workmen strictly follow the safety procedures / norms / instructions prescribed by Purchaser / our representative and mentioned in Factories Act 1948 and Factories Rules 1950 and in any other law in this regard.
2. The Transporter must prepare Safe Working Procedures and identify hazards and remedial actions for Goods and get approved by Purchaser / our representative and then strictly follow the instruction and precaution.
3. In case of injury / accident to any workman on duty or after he / she enters the gate of Jusco/ any factory premises of Purchaser till he leaves the works gate after his duty or after he reaches the place of work till he leaves the place after his duty, he will be treated at our authorized hospital and the cost will be borne by the Transporter.
4. The decision for loss of earning capacity of the workmen due to said accident will be done by our Standing Medical Board which will be treated as final. As regards compensation payable to the workmen, the Transporter will be responsible to abide by the provision of the ESI Act/ Workmen Compensation Act. In case of non-compliance of the provision of the act, Purchaser will comply with the provision of the said Act and necessary recovery will be done from the bill of Transporter to ensure compliance of the statute.
5. The Transporter must ensure Safety Induction by our representative to all his workmen before engaging them on the job.
6. The Transporter must ensure to give information of any accident / incident at job site to the concerned Departmental Head, Chief, Project Manager / Site Incharge, HR / IR, Security and Safety agencies of the Purchaser immediately.
7. For any non-compliance of environment, Health and Safety Management System and the above safety clauses, the Transporter will have to pay penalty as per the decision of the Management.
8. In addition to all above, the Transporter will have to follow any other procedure / norms / instructions / law that will come in future and will be applicable to him.
9. "No change of Personnel should be allowed without consent of concerned Safety Officer/ Coordinator."

Annexure A

Draft for Indemnity Bond: (To be executed on Rs.100/- Non-Judicial Stamp)

INDEMNITY BOND

Date:

THIS DEED OF INDEMNITY made at, by **M/s.**, a Company incorporated under Companies Act, 1956 or Proprietorship or Partnership Firm having their Registered Office(hereinafter referred to as “**Service Provider**” which expression shall unless it be repugnant to the context or meaning thereof, be deemed to mean and include their respective heirs, assigns, successors, executors and/or administrators) of the **ONE PART**

IN FAVOUR OF

JAMESHEDPUR UTILITIES & SERVICES COMPANY (JUSCO) Limited, a Company Registered under Indian Companies Act, VII of 1913, having its Registered Office at Sakchi Boulevard Road, Northern Town, Bistupur, Jamshedpur – 831 001, Jharkhand, India (hereinafter referred to as the “Company”, which expression shall unless it be repugnant to the context or meaning thereof be deemed to mean and include its successors, administrators and assigns) of the **OTHER PART**.

WHEREAS the Company has awarded to the Service Provider, a contract for.....
(hereinafter called the “Contract”) vide Work Order no..... dated

WHEREAS it is one of the conditions of the Contract that the Service Provider as well as the subcontractor , if any, shall comply with all the provisions of the Labour & Industrial Laws as well as all the safety rules as may be applicable from time to time for the discharge of services by the Service Provider including but not limited to the observance and compliance of The Contract Labour (Regulation & Abolition) Act,1970 , Gas Cylinder Rules,1984 (including Amendment Rules 1993),Explosive Act, 1984 (and all its relevant rules), Motor Vehicles Act, 1984,Child Labour (Prohibition and Regulation) Act 1986, The Employees Provident Funds & Miscellaneous Provisions Act, 1952, Employee State Insurance Act, 1948, Industrial Disputes Act, 1947, Minimum Wages Act, 1948, Payment of Bonus Act, 1965, Payment of Gratuity Act, 1972, Payment of Wages Act, 1936, Workmen's Compensation Act, 1923, The Maternity Benefit Act, 1961; Inter State Migrant Workmen (Regulation of Employment and Conditions of Services) Act ,1979 and The Employee’s Deposit Linked Insurance Scheme, 1976, Building and other construction Workers’ Act and other Labour Laws (hereinafter referred as the ‘Laws’), Environment and all other laws of the land as applicable.;

And whereas to safeguard the Company from any kind of claim and any third party claim and / or demand in the event of failure in observance or non compliance of any such laws by the Service Provider, the said Service Provider is executing this Deed of Indemnity.

NOW THIS DEED WITNESSETH AS UNDER:

1. THAT in the event of any liability arising out of failure to observe or non-compliance of any 'Law(s)' or any terms of the Contract by the Service Provider in discharge of the services under the said Contract, the Service Provider shall bear all the resultant whatsoever liability(ies), if any arising out thereof, and that the Company shall not be liable for any such liability(ies). The Service Provider indemnifies and keeps the Company harmless and fully indemnified at all times from and against any and all such liabilities, costs, damages, claims, penalties, interest, expenses, losses, demands, fines, legal liability ,causes of action, injury to persons, etc. which may be suffered, incurred, undergone and / or sustained by the Company including the costs and expenses that may be incurred in defending any such liability(ies) claim(s), proceeding(s) etc. that may be made or taken or arise on the same by any person, body, authority, government, judicial / quasi judicial authority due to the failure or non compliance of any such laws and rules there under (including any amendments in acts, laws, statutes & rules there under) of whatsoever kind and nature arising out of or in any way connected with, whether or not such acts or omissions are actual or alleged, active or passive with regard to the discharge of the said Contract.

IN WITNESS WHEREOF, the said Service Provider has hereunto set their hand the day and year first hereinabove written.

SIGNED SEALED AND DELIVERED by the within named "Service Provider"

(Authorised Signatory)

Rubber Stamp of Service Provider

Name:

Designation:

In presence of Witness

Name & Address of Witness

Signature

1.

2.

Annexure B

Penalties for safety non-compliances

A. Major safety non-compliances – Fatal / Dangerous occurrences (which have potential to become fatal)

Attribute: Major non-compliance of safety that has resulted in a fatal / dangerous accident at the work site / road, caused due to negligence of the vendor or its employee or its agent, creating emergency situations resulting in death / physical disability or serious loss to any Human Being / JUSCO / Tata Steel's property or production.

Penalty: Every such non-compliance will attract a Penal Recovery of 1% of the Order Value subject to a minimum of Rs.50,000/- and maximum Rs.1,000,000/- from vendor and suspension of the vendor at the discretion of concerned departmental Head whose decision will be final and binding in this regard.

B. Minor safety non-compliances: Safety non-compliances

Attribute: Minor non-compliance of safety such as:

- Starting of a job without a safety plan / safety check list duly approved by JUSCO / Tata Steel
- Starting of a job without work permit if applicable
- Starting of a job without proper prevention and rescue measures against fire / electrical shock / fall & impact / hazardous materials etc.
- Repeated violations of any standing instruction prescribed by JUSCO / Tata Steel
- Improper housekeeping / spillage of materials
- Unsafe driving / parking
- Driving without license / under the influence of alcohol
- Malfunction of vehicle / machinery / equipment

Penalty: Every such non-compliance will attract a Penal Recovery of Rs.5,000/- from vendor and suspension of the vendor at the discretion of concerned departmental Head whose decision will be final and binding in this regard.

C. Personal safety non-compliances

Attribute:

- Any Contractor's/Transporter's/Supplier's employee not using JUSCO / Tata Steel standard Personal Protective Equipments (PPE) - Safety Helmet, Safety Shoe, Safety Belt, Safety Gloves, Safety Goggles and others specific to the site condition
- Any Contractor's/Transporter's/Supplier's employee carrying materials / refuse etc. on head or shoulder – Materials must be carried by wheel barrows / bags / containers using only hands in case manual carting is necessary

Penalty: Every such non-compliance will attract a Penal Recovery of Rs.500/- from vendor.

Procedure for implementation

Heads / Frontline Managers / Safety Personnel / Supervisors will report the non-compliances to the respective departmental Heads. The Head will investigate the incidence and take appropriate decision. The vendor will be intimated about the penalty through a letter citing the reason and giving reference of the Purchase Order / Delivery Order number. The advice for deduction will be sent to F&A Department by marking a copy of the same letter.