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1. HSE POLICY: MANAGEMENT STATEMENT:

Lorven Energies India Pvt. Ltd.'s company policy is that the health and safety of their staff is a major factor in all company activities. Measures to preserve and ensure the same are subject to constant improvement. Material damage is to be prevented and the environment to be protected. The same applies to sub-contractor's personnel and clients' employees.

Systematic safeties at work, quality control, health and environment protection procedures are therefore an important component of the company policy.

These goals are predicated in the following principles:

- Quality, safety-at-work, health and environment protection together with economic success are all equally important company objectives
- All technical rules in force, working instructions as well as environmental protection and accident prevention regulations have to be observed when carrying out work.
- Careful planning and performance prevent accidents and incidents
- Care and organization are important safety and environmental protection pre-requisites.
- Safe, environment-friendly managerial behavior serves as a role model to others
- Safety-at-work, health and environmental protection require continuous updating.

The management is responsible for all these company goals and their realization. We expect enthusiastic, thorough and on going support from all staff in shouldering and carrying out these responsibilities.

2. DRUG AND ALCOHOL POLICY

Lorven Energies India Pvt. Ltd. strictly adheres to the Drug & Alcohol policy. The following necessary steps, but not limited to, are taken on all projects:

- i. All personnel employed by Lorven Energies India Pvt. Ltd. for the Project will be explained our Drug & Alcohol policy and will be required to sign the Drug & Alcohol Policy statement signifying their understanding and compliance:
- ii. Illegal use, sale or possession of narcotics, drugs, or controlled substance while on the job or company properties is a violation of this policy and may be grounds for disciplinary action up to and including discharge, Any illegal substance will be turned over to the appropriate agency and may result in criminal prosecution.
- iii. Any person found to be under the influence of alcohol or who possesses or consumes alcohol on the job including company property have the potential for interfering with their own safe and efficient job performance as well as their co-workers. Consistent with existing practices such conditions will be proper cause for administrative action up to and including termination of employment.

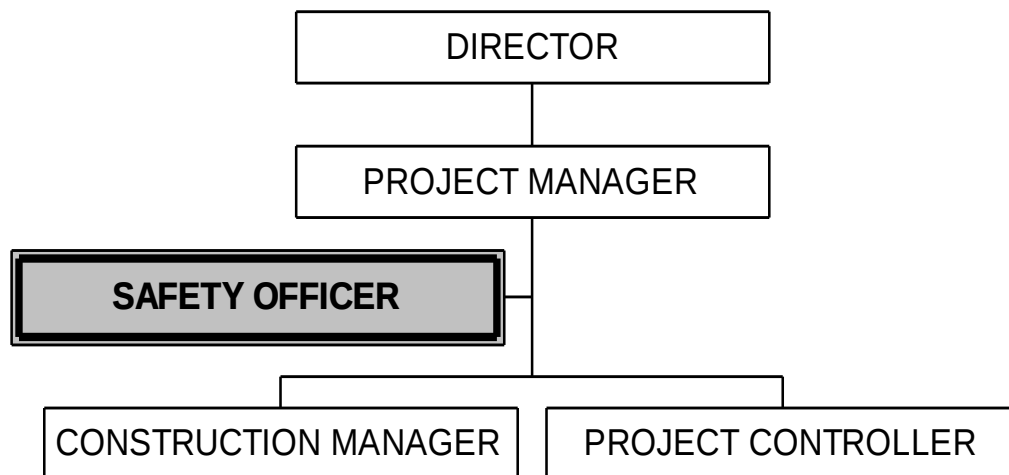
- iv. Any person who consumes alcoholic beverages within a five (5) hour period preceding any scheduled working hours is in violation of this policy.
- v. Off-the –job illegal drug use is a violation of this policy.
- vi. Abuse of illegal prescription or over the counter drugs which could affect an individuals job performance or which could jeopardize the safety of other individuals, the public, or client/ company equipment is a violation of this policy.
- vii. Personnel arrested for Off-the-job drug activity may be considered to be in violation of this policy. In deciding what action to take, management will take into consideration the nature of the charges, the persons record with present job assignment and other factors relative to the impact of the person's arrest upon the conduct on business.
- viii. Some of the drugs which are illegal under National Government, Province, state, or local laws include, among others, marijuana, heroin, cocaine, hashish, hallucinogens, and depressants and stimulants not prescribed for current personal treatment by an accredited physician.
- ix. Persons undergoing prescribed medical treatment with a controlled substance should report to their supervisor. The use of controlled substances as part of a prescribed medical treatment is not grounds for disciplinary action, although it is important for the supervisor to know when it is occurring.
- x. All individuals, vehicles, property and equipment are subject to search while on client property. This includes all parking areas. Refusal to permit a search of their person, property, vehicle, equipment or work area is a violation of this policy.
- xi. Individuals may be subject to drug and alcohol screening tests. Refusal to submit to any test is a violation of this policy. A positive test result indicating that an individual was present on client's property while under the influence of drugs or alcohol, is considered to be a violation of this policy.

3. COMMUNICATION AND RESPONSIBILITIES

- i. Lorven Energies India Pvt. Ltd.'s Board of directors has overall responsibility for the Health, Safety and Environmental policy.
- ii. The Board of Directors have appointed Operations Manager as having particular responsibility for Health, Safety and Environmental matters in the company. He shall co-ordinates all Health, Safety and Environmental activities within the company. He is assisted by company's Safety Manager who is full time involved with these activities and provides necessary feed back to the Operations Manager at regular intervals.
- iii. Health and Safety is considered to be an integral part of the line management function and every one supervising the work of others carries the responsibility of their health and safety.
- iv. Protection of the Environment is part of the line management function and consideration should be given to minimizing the environmental impact of the Company's activities in areas such as pollution of the aqueous environment, emission to the atmosphere, noise and waste disposal, and to encourage the conservation of resources.

- v. Above all it is the duty of all employees to exercise personal responsibility by co-operating in preventing injury and loss to themselves and others.

4. ORGANISATION FOR SAFETY



5. TRAINING

Safety, Health and Environment

- i Lorven Energies shall establish and supervise programs for the education and training of employees in the recognition, avoidance and prevention of unsafe conditions.
- ii The company shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury.
- iii Employees required to handle or use harmful substances shall be instructed regarding their safe handling and use, and be made aware of the potential hazards, personnel hygiene, and personal protective measures required.
- iv In the job site areas where the harmful plants or substances are present, employees who may be exposed to them shall be instructed regarding the potential hazards, and how to avoid injury, and the first-aid procedures to be used in the event of injury.
- vi. All personnel required to enter into confined or enclosed spaces shall be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and emergency equipment required. All personnel shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas.
- vii. All personnel working in the factory or warehouse will be trained for fire hazards and precautions required to be taken to avoid such accidents. Everyone must follow the safety signs at the entrance of the shop e.g. No smoking, use of PPE (personal protective equipment) etc. before entering the shop.

- viii. All personnel working in the factory or warehouse will be trained to use fire extinguishers in case of fire, which are located in specific locations in the shop.

Skills

- i. Lorven Energies conducts an in-house training program from time to time for Supervisors, Foremen and workmen for all trades like Insulators, Tinsmith and Fabricators etc.
- ii. Lorven Energies management has given this responsibility to the, Construction Manager to conduct such training programs from time to time.
- iii. All skilled workmen employed by Lorven Energies are first required to go through a trade test before their appointment. Anyone not found up to the mark will be rejected and those who pass the test will in turn be given a refresher course and an introduction to Lorven Energies working systems. This orientation is also given to the supervisors who join Lorven Energies.
- iv. Lorven Energies field supervisors continuously monitor the quality of workmanship at job site. Any person not found up to the mark will be required to go back for a refresher course.
- v. Lorven Energies also encourages workmen by an incentive scheme by raising the wages of any person for the improvement in quality and safe working.
- vi. Scaffolders are generally introduced with the safe working methods and to follow the "Scafftag" system while working with the scaffolding at project sites, as explained in Para 15.

6. RECORDS

All injuries must be entered in the "Accident Book", however trivial they may seem to be, and as much as possible entered with regard to the cause of accident, together with the names and addresses of all witnesses.

The reporting and investigation of accidents / incidents is important for the following reasons:

- a) to establish trends so that the necessary corrective action can be taken;
- b) to comply with legislation regarding reporting;
- c) to prevent, if possible, any recurrence;
- d) to provide information to defend the company /individuals against any possible claims arising from an accident/incident.

7. HOUSEKEEPING

- i During the course of construction, scrap and all other debris shall be kept cleared from work areas, passageways, and stairs, in and around buildings or other structures.
- ii Combustible scrap and debris shall be removed at regular intervals during the course of construction. Safe means shall be provided to facilitate such removal.

- iii Containers shall be provided for the collection of waste and trash. Garbage and other waste shall be disposed of at frequent and regular intervals.

8. PERSONAL PROTECTIVE EQUIPMENT

- i Lorven Energies shall issue hard hats, safety shoes and safety glasses to all personnel working on the site and shall insist that these are worn at all times on the site.
- ii Lorven Energies shall issue safety belts (and give instruction on their use) to Scaffolders working above 3 metres and to other operatives working at a similar height where fully boarded scaffolding is not provided.
- iii Lorven Energies shall issue dust masks and overalls to operatives engaged in the filling of cold boxes with mineral wool.

9. MEDICAL

Lorven Energies maintains a first aid box in their site offices.

10. SANITATION

- i Lorven Energies shall generally provide portable site toilets for its operatives and arrange for these to be serviced at appropriate intervals.
- ii Lorven Energies provides drinking water for its personnel

11. MATERIAL HANDLING AND STORAGE

- i All material stored shall be stacked, racked, or otherwise secured to prevent sliding, falling or collapse.
- ii Aisles and passageways shall be kept clear to provide for the free and safe movements of material handling equipment or employees. Such areas shall be kept in good repair.
- iii Bagged materials shall be stacked by stepping back the layers and cross keying the bags.
- iv Materials shall not be stored on scaffolds or runways in excess of supplies needed for immediate operations.
- v Storage areas shall be kept free from accumulation of materials that constitute hazards from tripping, fire, or pest haborage.
- vi. Control of Substances Hazardous to Health:

It is the Company's responsibility to make an assessment of the hazards of the substances, activities and processes involved and to then specify, use and maintain controls that are appropriate.

There are several key elements to control of Hazardous Substances :

- 1) Assessment
- 2) Control Measures
- 3) Maintenance of Control Measures
- 4) Health Surveillance
- 5) Provision of information
- 6) Monitoring of Exposure
- 7) Record Keeping

A significant commitment is required to determine and record the following:

- a) What substances are present in a plant or location?
- b) What activities use such substances?
- c) What hazards are associated with these substances?
- d) What are employees likely to be exposed to?

These four questions are fundamental to the assessment process and, depending upon the answers, may show what additional action is needed to comply with the regulations.

For materials procured from other sources the storage and application instructions given on the product data sheet by the manufacture are adhered to.

12. TOOLS - HAND AND POWER OPERATED

- i All hand and power tools and similar equipment shall be maintained in a safe condition.
- ii Employees using hand and power tools and exposed to the hazard of falling, flying, abrasives, and splashing objects, or exposed to harmful dusts, fumes, mists, vapors, or gases shall be provided with the particular personal protective equipment necessary to protect them from the hazard.
- iii All hand-held powered sanders, grinders, nibblers, shears, and jigsaws shall be equipped with only a positive "on-off" control.

13. LADDERS

- i Except where permanent or temporary stairways or suitable ramps or runways are provided, ladders described in this part shall be used to give safe access to all elevations.
- ii The use of ladders with broken or missing rungs or steps, broken or split side rails, or other faulty or defective construction is prohibited. When ladders with such defects are discovered, they shall be immediately withdrawn from service. Inspection of metal ladders shall include checking for corrosion of interiors of open-end hollow rungs.
- iii Portable metal ladders shall be of strength equivalent to that of wood ladders.

- iv Portable ladder feet shall be placed on a substantial base, and the area around the top and bottom of the ladder shall be kept clear.
- v Portable ladders shall be used a such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). Ladders shall not be used in horizontal position as platforms, runways, or scaffolds.
- vi Ladders shall not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by guards.
- vii The side rails shall extend not less than 36 inches above the landing. When this is not practical, grap rails which provide a secure grip for an employee moving to or from the point of access, shall be installed.
- viii Portable ladders in use shall be tied, blocked, or otherwise secured to prevent their being displaced.

14. SCAFFOLDING

A) General Requirements

- i. Scaffolds shall be erected in accordance with requirements of this section.
- ii The footing or anchorage for scaffolds shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose brick, or concrete blocks, shall not be used to support scaffolds or planks.
- iii No scaffold shall be erected, moved, dismantled or altered except under the supervision of competent persons and "DO NOT USE SCAFFOLD" signs are displayed clearly at points of entry.
- iv Guardrails and toe boards shall generally be installed on open sides and ends of platforms.
- v Guardrails shall be 2 x 4 inches, or the equivalent approximate 42 inches high, with a midrail, when required. Supports shall be at intervals not to exceed 8 feet. Toe boards shall be a minimum of 4 inches in height.
- vi. Any scaffold including accessories such as braces, brackets, trusses, screw legs, ladders, etc., damaged or weakened from any cause shall be immediately repaired or replaced. All planking shall be scaffold grades, or equivalent.
- vii. The maximum permissible span for 1 ¼" x 9" or wider plank of full thickness shall be 4 feet.
- viii. An access ladder or equivalent safe access shall be provided.
- ix. Scaffold planks shall extend over their end supports not less than 6 inches and not more than 12 inches.
- x. The poles, legs, or uprights of scaffolds shall be plumb, and securely and rigidly braced to prevent swaying and displacement.

B) Tube and Coupler Scaffolds

- i A light duty tube and coupler scaffold shall have all posts, bearers, runners, and bracing of nominal 2 inch OD steel tubing. The posts shall be spaced no more than 6 feet apart by 10 feet along the length of the scaffold. Other structural metals when used must be designed to carry an equivalent load. No dissimilar metals shall be used together.
- ii Posts shall be accurately spaced, erected on suitable bases, and maintained plumb.
- iii. Runners shall be erected along the length of the scaffold, located on both the inside and the outside posts at even height. Runners shall be interlocked to the inside and the outside posts at even heights. Runners shall be interlocked to form continuous lengths and coupled to each post. The bottom runners shall be located as close to the base as possible. Runners shall be placed not more than 6 feet - 6 inches on centers.
- iv. Bearers shall be installed transversely between posts and shall be securely coupled to the posts bearing on the runner coupler. When coupled directly to the runners, the coupler must be kept as close to the posts as possible.
- v. Bearers shall be at least 4 inches but not more than 12 inches longer than the post spacing or runner spacing.
- vi. Cross bracing shall be installed across the width of the scaffold at least every third set of posts horizontally and every fourth runner vertically. Such bracing shall extend diagonally from the inner and outer runners upward to the next outer and inner runners.
- vii. Longitudinal diagonal bracing on the inner and outer rows of poles shall be installed at approximately a 45 degree angle from near the base of the first outer post upward to the extreme top of the scaffold. Where the longitudinal length of the scaffold permits, such bracing shall be duplicated beginning at every fifth post. In a similar manner, longitudinal diagonal bracing shall also be installed
- viii. From the last post extending back and upward toward the first post. Where conditions preclude the attachment of this bracing to the posts, it may be attached to the runners.

C) Tubular Welded Frame Scaffolds

- i Metal tubular frame scaffolds, including accessories such as braces, brackets, trusses, screw legs, ladders, etc., shall be designed, constructed, and erected to safely support four times the maximum rated load.
- ii Spacing of panels or frames shall be consistent with the loads imposed.
- iii Scaffolds shall be properly braced by cross bracing or diagonal braces, or both, for securing vertical members together laterally, and the cross braces shall be of such members so that the erected scaffold is always plump, square, and rigid. All brace connections shall be made secure.
- iv Scaffold legs shall be set on adjustable bases or plain bases placed on mud sills or other foundations adequate to support the maximum rated load.

- v The frames shall be placed one on top of the other with coupling or stacking pins to provide proper vertical alignment of the legs.
- vi Where uplift may occur, panels shall be locked together vertically by pins or other equivalent suitable means.
- vii To prevent movement, the scaffold shall be secured to the building or structure at intervals not to exceed 30 feet horizontally and 26 feet vertically.
- viii Drawings and specifications for all frame scaffolds over 125 feet in height above the base plates shall be designed by a professional engineer.

D) Manually Propelled Mobile Scaffolds

- i When free-standing mobile scaffold towers are used, the height shall not exceed four times the minimum base dimension.
- ii Casters shall be properly designed for strength and dimensions to support four times the maximum intended load. All casters shall be provided with a positive locking device to hold the scaffold in position.
- iii Scaffolds shall be properly braced by cross bracing and horizontal bracing.
- iv Platforms shall be tightly planked for the full width of the scaffold except for necessary entrance opening. Platforms shall be secured in place.
- v A ladder or stairway shall be provided for proper access and exit and shall be affixed or built into the scaffold and so located that when in use it will not have a tendency to tip the scaffold.
- vi The force necessary to move the mobile scaffold shall be applied near or as close to the base as practicable and provision shall be made to stabilize the tower during movement from one location to another. Scaffolds shall only be moved on leveled floors, free of obstructions and openings.

15. SCAFFTAG SYSTEM

All employees will be trained to the use of "SCAFFTAG" system, which generally is as follows:

The Scafftag system consists of a Red colored holder with "DO NOT USE SCAFFOLD" written on it and a Green insert card that has the following text " SCAFFOLD SAFE TO USE".

Prior to completion of scaffolding and during the dismantling a warning notice clearly stating:

SCAFFOLD INCOMPLETE

DO NOT USE

Shall be affixed to the scaffold at the Entry / Egress points.

Upon completion and inspection of the scaffold by an authorized person, the "Scafftag" shall be filled in and displayed prominently.

The "Scaffold tag" shall display the following

information: Subcontractor Name
Location
Date erected
Requested by
Erected by
Foreman
Signatory
Safe working load

If the scaffolding has to be altered or when it has to be dismantled, the "DO NOT USE SCAFFOLD" sign should be displayed.

16. CARE AND MAINTENANCE OF EQUIPMENT AND MACHINERY

- i. It is Company's policy to maintain a record of all the equipment and machinery for preventive maintenance. A joint inspection is carried out at regular intervals, at least once every year by the management team including the safety officer to inspect the status of all machinery and equipment in use.
- ii. The objective of such inspection is to keep all the machinery in good condition for the safety of the operator as well as for maintaining the efficiency and quality of work produced.
- iii. A report is generated jointly by the company safety officer and the person in charge for use of such machinery and the recommendation is given to the management for necessary actions required.
- iv. Immediate action is taken by the management to implement such measures suggested by the report.