

SOP 12 – Criteria for selection of warehouse

S12.1 Purpose

The purpose of this Standard is to describe the environment, health, safety and social aspects to be considered while selected temporary and permanent project/company warehouses.

S12.2 Scope

This Standard is mandatory and applies to EESL corporate office and its on-site activities. This standard applies to all storage facilities pertaining to EESL's operations, including temporary, permanent, project, corporate, indoor, outdoor and covered warehouses and godowns.

S12.3 References

- The Warehouse (Development and Regulation) Act, 2007
- National Building Code of India, Part 4 (Fire and life safety)

S12.4 Key EHSS criteria for warehouses

The following EHSS criteria have to be adhered while selection and operation of warehouses.

- The warehouse should be constructed as per Bureau of Indian Standards
- The warehouse should have adequate number of firefighting extinguishers of appropriate type, fire buckets with sand and water. The capacity wise requirement of fire extinguishers and fire buckets is given below:

Capacity of warehouse	No. of fire extinguishers to be provided	No. of fire (sand) buckets to be provided
Up to 1500 MT	3	15
Above 1500 MT and up to 3000 MT	4	20
Above 3000 MT and up to 5000 MT	6	30
Above 5000 MT and up to 10000 MT	8	40
Above 10000 MT and up to 15000 MT	10	50
Above 15000 MT and up to 25000 MT	15	75
Above 25000 MT	25	125

In case the hazardous and extra hazardous goods are stored in the warehouse, the number may be doubled.

- For a 10,000 MTs warehouse, a water storage tank of 1 lakh liter capacity with 24 hrs availability along with to fire jet pumps throwing water up to 30 to 40 meters with a speed of 300 to 700 litter water per minute is advised
- All the electrical connections and fittings should be got checked and tested regularly to ensure that no electrical line/fitting is defective. In case some defects are observed, these should be immediately got repaired.

- Warehouse shall ensure that addresses and telephone numbers of Fire Station, Police Station and warehouseman shall be displayed at conspicuous places so that in case of emergency, the concerned authorities may be contacted without any delay
- Wherever material handling equipment are used the warehouse incharge shall maintain a list of equipment which require calibration. These equipment would be calibrated at least once in a year by the approved calibration laboratories/institutions. A separate registrar for such equipment with details of calibrations would be maintained in the warehouses. A certificate of calibration for a particular equipment indicating the name of the calibrating agency, date of calibration, validity of calibration etc. should be maintained in the file for records. In case of in house calibration, details of calibration procedure, error between standard procedure of calibration and equipment reading should be maintained
- The warehouse incharge and other staff of the warehouse should get training on the basic principles and general procedure of fire fighting in a warehouse. Warehouse official from time to time shall ensure that all the fire fighting equipment and devices installed in the premises are in working condition. A separate register to this effect should be maintained in the warehouse and mock fire fighting drills at frequent intervals should be carried out.
- Warehouses should have at least two separate entry/exit doors for evacuation of personnel in case of emergency. Both the doors should open from inside to out and should be unlocked at all times
- Adequate ventilation, along with emergency lights should be provided in the warehouse
- All warehouses must have an emergency evacuation plan which is displayed at prominent places inside and outside the warehouse

S12.5 Stacking of material

Stack planning shall be done according to the floor area. Recommended standard size of stacks are given below:

Sl. No	Stack size
1	9.144 m x 6.090 m
2	6.400 m x 6.486 m
3	5.486 m x 5.486 m
4	3.657 m x 5.486 m

The warehouse incharge may choose to have different size depending upon span of warehouse for optimum space utilization.

- Stack plan shall be prepared in such a manner that the stacks shall not obstruct light and free flow of air into godowns. Besides, the stacks may be covered with fumigation covers for curative treatment.
- A minimum of 0.75 mt wide space between stacks, 0.6 mt between wall and stack and 1.20 mt between door points as haulage alleyway shall be provided for operational purpose.

Stacking

- Stacking of commodities in bags / containers / packages shall be done in the identified stacks on a suitable available dunnage material viz, bamboo mats, polythene sheet, wooden crates, poly pallets, etc.
- Stacks shall be built in straight line uniformly within the stack area earmarked by stack lines.
- Stack card with necessary entries shall be provided on every stack on haulage alleyways side

Stack lines.

- Each stack shall be identified by drawing a 5cm width stack line in yellow or white colour on all four sides of the floor of the godown as per stack plan.
- Each stack shall be given stack number neatly painted on the floor / wall / pillar in front of each stack.

S12.6 Disaster management

Whenever there is a disaster, the warehouseman shall proceed as under:

- In case of fire, the following steps would be taken immediately:
 - Put out the fire by using appropriate fire extinguishers / fire buckets
 - Take steps to avoid loss of other adjacent stocks by removing it from burning stock.
 - Call Fire Brigade
- In case of flood, cyclone, arrange for draining out of water and take necessary help of local civil authorities.
- Arrange photographs of the incidents on the same day
- For the fire, theft, burglary and misappropriation, lodge a FIR with the local Police Station and obtain a copy on prescribed format of Police Department.
- Inform the details of the incident to the Insurer (In case Goods are insured by more than one Insurance company to the Lead Insurer)
- Carryout the activity of salvaging and segregation of the damaged stocks.
- Communicate following to Insurance Companies / their surveyor to claim the loss on prescribed Claim Form:
 - Copy of initial intimation
 - Copy of FIR
 - Brief Incident Record
 - Location of the Godown / Site
 - Details of loss (This shall be based on valuation of the Goods as per records of the warehouse minus disposal of damaged goods and expenses of salvaging with necessary evidences).
 - Copy of the insurance policy.
 - Photographs of the incident.
 - Newspaper cutting, if any
 - Certification of Fire Brigade, Police, other local authorities, as applicable
 - Relevant extracts of stock ledger, insurance register

History of amendments

The latest versions of the Documentation Format must be used at all times. This page needs to be updated whenever there is a change in the version number of the documents.

S. No	Date of amendment	Version	Details of amendment
1.	DD.MM.YYYY	01	Initial approval of the documentation format

Prepared by

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