

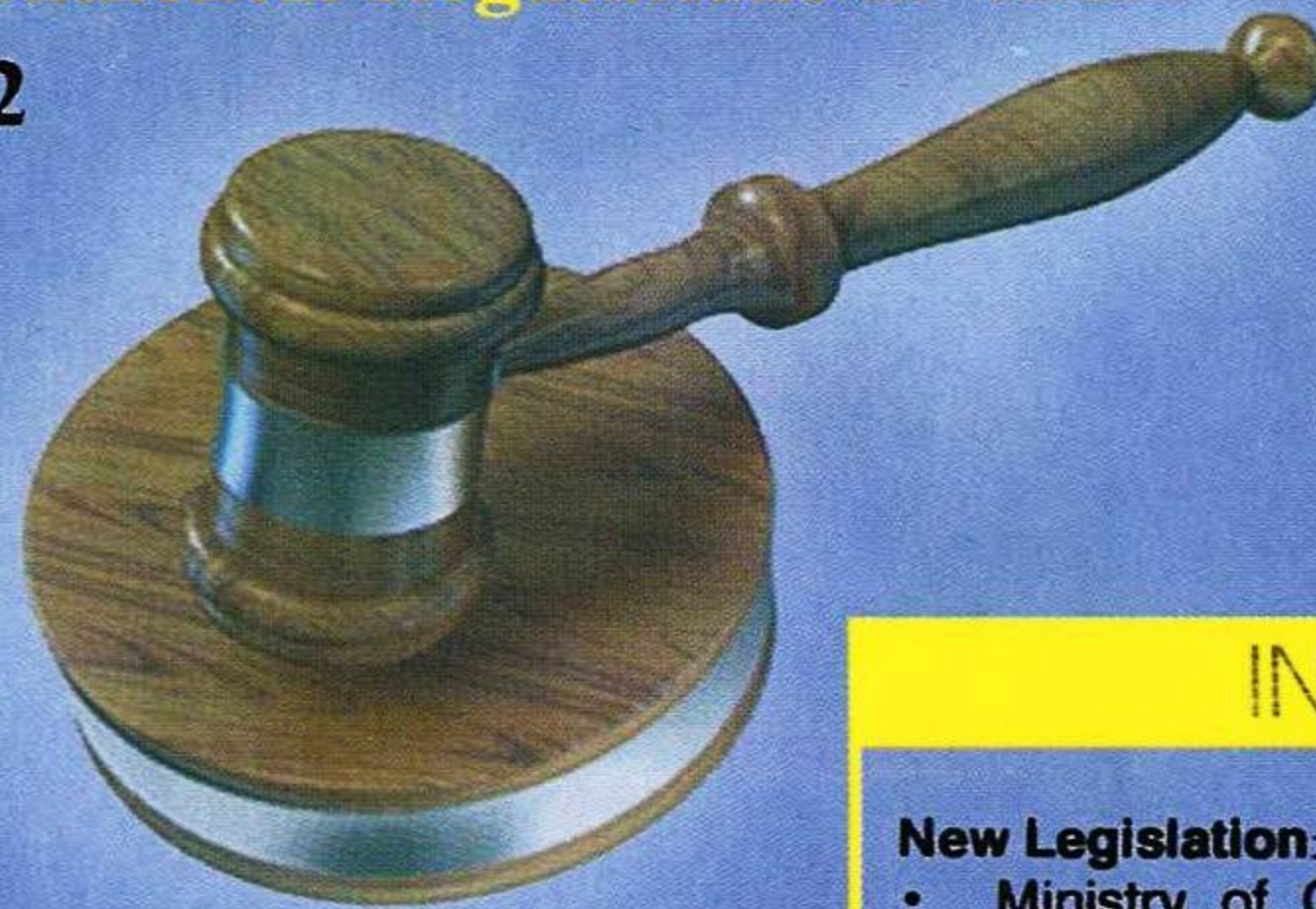
Environmental Legislation Update

Vol. 07 - Issue 02

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Developments in Environmental Regulations in India

July - September, 2012



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October 1, 2012
New Delhi



Dear Readers,

It is once again time for another issue of "Environmental Legislation Update" (ELUS). Continuing with our tradition, this issue also contains National Legislation (New as well as Upcoming) and International happenings in the field of Environment and Occupational Health & Safety besides the Compliance Guidance section.

We look forward to your continuing support to ELUS so that you get the best legislative input and improved EHS performances benchmarking.

*With Best Regards,
EQMS Family*

ABOUT THE UPDATE

Regulatory compliance is a foremost requirement to demonstrate sound Environmental, Health and Safety performance and to sustain business. This Update has been prepared by EQMS as a service to industry to provide them timely information and analysis on new and upcoming EHS regulations in India.

We thank industry and Government institutions for their overwhelming response and support to our previous issues. We welcome your suggestions. We would like to publish your views on the effective design and enforcement of EHS regulations in India.

LEGAL NOTES:-

Although every attempt is made to ensure the information contained is accurate, EQMS India Pvt. Ltd. can not be held liable or responsible for action taken based on the content.



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NEW LEGISLATION

Ministry of Commerce & Industry (Department of Industrial Policy and Promotion) Notifies Ammonium Nitrate Rules, 2012

Whereas the draft of Ammonium Nitrate Rules, 2011 was published, as required by sub-section (1) of section 18 of Explosive Act, 1884 (4 of 1884) vide notification of the Government of India in the Ministry of Commerce and Industry (Department of Industrial Policy and Promotion) number G.S.R. 694 (E), dated the 16th day of September, 2011 in the Gazette of India, Part II, Section 3, Sub-section (i) where objections and suggestions were invited from all persons likely to be affected, before the expiry of a period of 45 days from date on which the copies of the Gazette containing the said notification were made available to the public, on 16th September, 2011. After these objections and suggestions were received from the public on the said draft rules, in exercise of powers conferred by sections 5 and 7 of the Explosives Act, 1884 (4 of 1884) the Central Government hereby makes the following rules and may be called the **Ammonium Nitrate Rules, 2012**.

Chapter I: Preliminary

2 : Definitions

- **Act:** means the Explosives Act, 1884 (4 of 1884)
- **Ammonium Nitrate:** the compound having the chemical formula NH_4NO_3 and includes any mixture or compound having more than 45 percent Ammonium Nitrate by weight including emulsions, suspensions, melts or gels (with or without inorganic nitrates) but excluding emulsion or slurry explosives and non-explosives emulsion matrix and fertilizers from which Ammonium Nitrate cannot be extracted by any physical or chemical process.
- **Chief Controller:** Chief Controller of Explosives
- **Competent person:** a person who is adequately experienced and well conversant in safe manufacture, conversion, storage, transportation and handling of Ammonium Nitrate, as the case may be.
- **Controller:** includes the Joint Chief Controller of Explosives, the Deputy Chief Controller of Explosives, the Controller of Explosives and the Deputy Controller of Explosives.
- **Converter:** a person or an agency which undertakes conversion of solid form of Ammonium Nitrate into melt under sub-section (1) of section 68 of the Act.
- **Conservator:** includes any person or agency or firm acting under the authority of the officer or body of persons

appointed to be conservator of a port under section 7 of the Indian Ports Act, 1908 (15 of 1908).

- **District Authority:**
 - i. In towns having a Commissioner of Police, the Commissioner or a Deputy Commissioner of Police
 - ii. In any other place, the District Magistrate or Additional District Magistrate.
- **Departmental Testing Station:** the testing station of the Petroleum and Explosives Safety Organization
- **Explosive:** the explosives as defined under clause (d) of section 4 of the Explosives Act, 1884 (4 of 1884).
- **Emulsion explosive and non-explosives emulsion matrix:** same meaning as defined under the Explosives Rules, 2008
- **Form:** a Form specified in the Schedules annexed to these rules.
- **License:** pre-requisite document to manufacture, convert, import, export, stevedoring and bagging, transport, possess, sale and use of the Ammonium Nitrate.
- **Licensing authority:** authority empowered to issue the license specified in Schedule I.
- **Occupier:** in relation to premises means a person who has the control and is responsible for managing the affairs of the premises, and includes, in relation to Ammonium Nitrate, the person in possession of the Ammonium Nitrate. Provided that in relation to a –
 - Proprietary firm, the proprietor; or
 - Partnership firm, the partner nominated in writing by all other partners; or
 - Company, the director or any other person nominated in writing by the Board of Director; or
 - Society or association, the office bearer nominated in writing by the governing body, shall be the occupier.
- **Protected works:** includes buildings or structures in which persons dwell, college, school, hospital, theatre, cinema house, shop, office, market, place of storage of hazardous substances, etc. but does not include agricultural wells and pump sets connected therewith.
- **Slurry explosive and Site mixed explosives:** shall have the same meaning as defined under Explosives Rules, 2008.
- **Store house:** independent building meant to possess or store Ammonium Nitrate other than Ammonium Nitrate melt.

- **Stevedore:** includes any person, agency or firm which undertakes loading and unloading of bulk Ammonium Nitrate from the ship, its transport to the transit store for its bagging
- **Safety and Security Management Plan:** the comprehensive plan for ensuring and managing safety and security in Ammonium Nitrate manufacturing factory, stevedoring, transport, storage and usage premises.

3. Applicability and exemptions

- 1) These rules are applicable all over India for regulating the manufacturing, conversion, import, export, stevedoring, bagging, transport, and possession for sale or use of the Ammonium Nitrate.
- 2) Nothing in these rules shall apply to the possess, use, transport, import, or export of Ammonium Nitrate by:
 - Any of the Armed Forces of the Union and Ordnance Factories or other establishments of such Forces for own use in accordance with the rules or regulations made by the Central Government.
 - The Indian Railways and its authorized carriers while acting as carrier.
 - Port authority
 - Any person employed under the Central Government or State Government in exercise of any power under the Act or these rules.
- 3) Nothing in these rules shall apply to the possess and use of ammonium nitrate of quantity not exceeding five kilograms by the established laboratories, educational institutions, medical institutions, hospitals and health clinics for scientific and educational purpose. Provided the local police is informed of the quantity under possess for the aforesaid purpose.

The following are the salient features described in brief.

Chapter II: General Provisions

4. Control over manufacture, conversion, stevedoring and bagging, import, export, transport, possession for sale or use of Ammonium Nitrate.

No person shall undertake manufacture, conversion, stevedoring, import, export, transport or possess for sale or use Ammonium Nitrate except as authorized or licensed under these rules.

5. Pre-requisite for grant of license.

No license shall be granted unless all the relevant provisions laid down under these rules and all conditions contained in the license forms under Part – 2 of Schedule II annexed to these rules are complied with:

Provided that all the existing manufactures, converters, users, transporters, stevedores, baggers, sellers, possessors, importers and exporters shall apply for license within six months and shall comply with the provisions of these rules within a period of one year from the date of publication of these rules.

6. General Restrictions

- 1) **Restriction on manufacture**
The Ammonium Nitrate shall not be manufactured at any place other than the place indicated in the license.
- 2) **Restriction on storage and conversion**
 - The Ammonium Nitrate storehouse shall not be located in thickly populated areas.
 - No Ammonium Nitrate shall be converted at any place except at converter's premises duly licensed.
 - No person shall extract Ammonium Nitrate from any fertilizer calcium Ammonium Nitrate (CAN) by any chemical or physical process.
- 3) **Restriction on stevedoring, bagging and possession for sale or use**
 - No person shall undertake stevedoring, bagging and possession for sale or use Ammonium Nitrate except under conditions of a license granted under these rules at a licensed store house as specified therein.
 - No person shall store, process, deliver, receive, handle or transport any Ammonium Nitrate contaminated fully or partially with any organic material, metal powder or scraps, or sulphur, phosphorous etc.
- 4) **Restriction on import or export**
 - No person shall import or export any Ammonium Nitrate except under and in accordance with the conditions of license granted under these rules.
 - No Ammonium Nitrate shall be imported or exported except at its ports notified by the Central Government.
 - The Ammonium Nitrate shall not be imported into India by sea except through the ports which are duly approved for this purpose by the Ministry of Shipping and Transport, Government of India, in consultation with the Chief Controller and declared as custom's ports by the Commissioner of Customs.
 - The Ammonium Nitrate imported into India by sea shall not be stored in the port.
- 5) **Restriction on transport**
 - The Ammonium Nitrate shall not be transported with any other explosives, inflammable substances, oil, gases, carbonaceous matter, etc.

- No Ammonium Nitrate shall be transported in any carriage vessel plying for or carrying passengers on hire.
- 6) Restriction on delivery or despatch
- No person shall deliver or despatch any Ammonium Nitrate to anyone other than a person who;
 - (i) is the holder of a license to possess the Ammonium Nitrate or the agent of a holder of such a license duly authorized by him in writing on his behalf; or
 - (ii) is entitled under these rules to possess the Ammonium Nitrate without a license.
 - The Ammonium Nitrate so delivered or despatched shall in no case exceed the quantity at any point of time for which the person is holding a license under these rules.
 - No person shall receive Ammonium Nitrate from any person other than the holder of a license granted under these rules.
- 7) Restriction on handling Ammonium Nitrate
No person shall handle or cause to be handled any Ammonium Nitrate between the hours of sunset and sunrise. Provided that nothing in this rule shall apply to handling of Ammonium Nitrate during the dark hours if proper illumination is provided in the area and the place is guarded.
- 8) Restriction on employment of children, intoxicated persons and certain other persons.
No person shall employ, allow or engage a person
- who is below the age of 18 years; or
 - who is in a state of intoxication; or
 - who is mentally or physically challenged
- for manufacture, conversion, bagging, storage, sale, loading, unloading or transport of Ammonium Nitrate or to enter any premises permitted under these rules.
- 9) Restriction on toxic, corrosive, dangerous or flammable substances
No toxic, corrosive, or flammable or otherwise dangerous substances such as carbonaceous matter, reducing agents, petroleum, carbide of calcium, compressed gases or any other chemical which may react with Ammonium Nitrate in a manner that may result in an explosion shall be allowed in the premises meant for manufacture, conversion, bagging, storage, import, export, transport or handling of Ammonium Nitrate.
- 10) Restriction on use
Ammonium Nitrate shall not be used for blasting either alone or in combination with other ingredients unless permitted under the Explosives Rules, 2008.

7. Employment of competent person

- 1) No Ammonium Nitrate shall be manufactured or converted except under supervision of a competent person.
- 2) All operations associated with stevedoring, bagging, handling, transport and use of Ammonium Nitrate in any building or part thereof shall be carried out under the supervision of a person employed by the license holder who is conversant with the process thereof and the hazards connected therewith and the provisions of these rules.

8. Packing of Ammonium Nitrate

9. Marking on Ammonium Nitrate packages

10. Recovery of Spillage during handling

11. Special precautions against accident

12. Restriction on unauthorized persons, provision of guards and safety distance for storehouse

13. Prohibition of certain acts

14. Maintenance of records and submission of returns

Chapter III : Provisions for Manufacture, Conversion, Possession, Sale and Use of Ammonium Nitrate

15. Safety and Security Management Plan

- 1) A person intending to manufacture, convert, stevedore, bag, possess for sale or use, transport, import or export Ammonium Nitrate shall submit Safety and Security Management Plan to the licensing authority and to the District Authority with the security aspect duly vetted by the police authorities for approval.
- 2) The Plan as referred to in sub-rule (1) shall include the following safety and security aspects, namely:
 - assigned responsibility and organizational structure
 - hazard identification, risk assessment and control
 - provision of information, education and training to the work force, contractors and visitors
 - accident reporting and investigation
 - emergency response planning & preparedness such as first aid, testing of emergency plan once in a year.
 - Disaster Management Plan and provision of escape routes, identifying and assessing security risk associated with the activities, evacuation plan, appropriate fire fighting controls.
 - set of process adopted by the holder of the license to carry out authorized activities and keeping of Ammonium Nitrate secure.

- maintenance of schedules for plant & equipment
- standard operating procedure
- competence of personnel for tasks
- nature of the surveillance
- documentation and record keeping so as to ensure accountability, identification and traceability of Ammonium Nitrate;
- security arrangement for storehouse, tankers containing Ammonium Nitrate melt, transport of Ammonium Nitrate by vehicles, security during transport of Ammonium Nitrate including its loading or unloading;
- mechanism for controlling and restricting access of unauthorized person to Ammonium Nitrate storage;
- assigning of responsibility for ensuring compliance with plan or task.

3) Every person engaged in the manufacturing factory shall be imparted training in safety and security aspects by competent persons periodically during manufacture, handling, transportation and storage of the Ammonium Nitrate and records of such trainings shall be maintained in the factory.

Chapter IV: Provisions for Import and Export of Ammonium Nitrate – General

16. Import or export by land

17. Compliance of Port Rules

18. Import of Ammonium Nitrate

19. Export of Ammonium Nitrate

Chapter V: Provision for Transport of Ammonium Nitrate – General

20. Procedure to be followed during transportation

21. General requirements and documents to be available during transport

22. Loading, unloading, maintenance and operation of vehicle engaged in transport of Ammonium Nitrate

23. Procedure on accidents to vehicles

24. Nothing contained in rules 20, 21, 22 and 23 shall be applicable for transport of solid Ammonium Nitrate, possessed/purchased by persons permitted / holding valid license under these rules for quantities not exceeding 50 kilograms.

Chapter VI: Provision for Possession, Sale or Use of Ammonium Nitrate

25. Possession in licensed premises

26. Quantity of Ammonium Nitrate to be purchased in a given period of time.

A license holder for possession, sale or use of Ammonium Nitrate in and from a storehouse shall purchase only such quantity of Ammonium Nitrate in a given period as may be specified in the license.

27. Accountability and transaction of Ammonium Nitrate

Chapter VII: Grant or Refusal of Approval, License, Amendment, Transfer and Renewal

28. Authority issuing Licenses

The licences for specific purposes may be granted by the authorities specified in **Schedule I**

29. Payment of fees

30. Prior approval before construction of facilities

- 1) A person desiring to obtain a licence for manufacture, conversion and storehouse for possession for sale or possession for use, of Ammonium Nitrate, under these rules, shall obtain prior approval from the authority empowered to grant such licence, by submitting documents mentioned in rule 33.
- 2) The District Magistrate while granting the prior approval, shall return to the applicant one set of plans showing distances required to be kept clear as specified in rule 12 duly endorsed together with approval.
- 3) The Chief Controller or Controller, while granting prior approval, shall return to the applicant one set of plans showing distances required to be kept clear in and around as specified in rule 12 duly endorsed and an additional set of the said documents to enable the applicant to submit the same to the authority authorized to issue no objection certificate under rule 33.

Note: the prior approval under sub-rule (1) shall not be necessary for the facilities of Ammonium Nitrate existing as on the date of publication of these Rules, for obtaining license under these rules.

31. Application for grant of license

After the construction of premises, as per plan approved under rule 30, the applicant shall apply for grant of license along with documents related to rule 32 to the authority empowered to grant such license.

32. Period of validity of license

The licensing authority may grant a license for the period not exceeding five financial years or part thereof ending on the 31st March for all purposes, except for license for import and export, which shall be one year.

33. Documents to be submitted for seeking approval or license

- 1) The following documents shall be submitted for approval of premises proposed to be licensed:
 - o application in appropriate Form as per **Part-1 of Schedule II**
 - o Safety and Security Management Plan prepared as required under rule 15
 - o Three sets of the drawings of the proposed storehouse and attached facilities and the site showing approach road with all protected works in and around.
- 2) The following documents shall be submitted for grant of license:
 - o application in appropriate Form as per **Part-1 of Schedule II**
 - o six sets of the drawings approved under sub rule (1) above.
 - o the particulars of persons employed for handling of Ammonium Nitrate, their qualification and experience. The applicant shall file an affidavit regarding their character and antecedents.
 - o the certificate of completion of the storehouse and attached facilities duly endorsed by Chartered Engineer.
 - o NOC in original along with drawings duly endorsed from the concerned District Authority, where the District Authority is not the license issuing authority.
 - o required license fee as prescribed in rule 29.

34. Procedure to be observed for issue of no objection certificate and grant of license by the District Authority

35. Grant of a License

36. Renewal of license

37. Amendment of license in respect of alteration or change in the premises or licensed capacity, but not involving change of name of license or partners or directors or members.

38. Procedure for change of partners or directors or members or occupier

39. Refusal for approval, grant or amendment of license

40. Refusal to renew a license

41. Cancellation of No Objection Certificate

42. Suspension and revocation or cancellation of license

43. Procedure on expiry, suspension or revocation or cancellation of license

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45. Procedure to be followed by the appellate authority

46. Procedure on death or disability of license holder

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49. Executive control over authorities

50. Powers of search and seizure

51. Procedure on reports of infringement

Chapter IX: Accidents, Inquiries and Reports

52. Notice of any loss or theft

53. Notice of accident

- 1) The notice of an accident required to be given under section 8 of the Act shall be given within a period of 24 hours of the accident by telephone, telegram, email, fax, by special messenger or in any other electronic mode followed by a written report signed by the occupier or authorized agent giving particulars of circumstances leading to accident, loss of human life, injury to persons damage to property, emergency action taken etc. to the:
 - o Chief Controller
 - o Controller in whose jurisdiction accident has taken place
 - o District Magistrate
 - o Officer-in-charge of the nearest police station

- 2) Pending the visit of the Chief Controller, or his authorized representative or instruction received from the Chief Controller or his representative that he does not wish any further investigation or inquiry to be made, all wreckage and debris shall be left untouched except in so far as its removal may be necessary for the rescue of writing, his observations, discrepancies or the violations, if any, of the rules or contravention of conditions of the license, and a copy of the inspection report shall be endorsed to the licensing authority for taking further necessary action.

Schedule - I
License and licensing authority (See rule 28)

SI No.	Purpose for which granted	Form of License	Licensing Authority
1.	License to manufacture and possess for sale Ammonium Nitrate or convert melt to solid and vice versa and possess for sale of Ammonium Nitrate	P-1	Chief Controller or Controller authorized by Chief Controller
2.	License to stevedore, bag, & store Ammonium Nitrate	P-2	Chief Controller
3.	a. License to possess for sale or use of Ammonium Nitrate from a store house not exceeding 30 MT; or	P-3	Chief Controller
	b. License to possess for sale or use of Ammonium Nitrate from a store house exceeding 30 MT; or	P-3	Chief Controller or Controller authorized by Chief Controller
	c. License to possess for use of Ammonium Nitrate from a store house attached to explosives manufacturing/ nitrous oxide manufacturing unit	P-3	Chief Controller or Controller authorized by Chief Controller
	d. License to possess for use Ammonium Nitrate for agricultural purpose from a storehouse	P-3	District Authority or Officer authorized by District Authority
4.	a. License to transport Ammonium Nitrate for licences granted by District Authority for possession for sale or possession for use; or	P-4	District Authority or Officer authorized by District Authority
	b. License to transport Ammonium Nitrate for Licenses granted by the Chief Controller or Controller for possession for sale or possession for use		
5.	a. License to import Ammonium Nitrate; or b. License to export Ammonium Nitrate	P-5	Chief Controller

Schedule - II
Part-1 : Application Forms (See Rule 33)

Form No.	Purpose
A-1	Application for License to manufacture and possess for sale Ammonium Nitrate or convert melt to solid and vice versa and possess for sale of Ammonium Nitrate
A-2	Application for License to stevedore, bag, store Ammonium Nitrate
A-3	Application for a. License to possess for sale or use of Ammonium Nitrate from a store house not exceeding 30 MT; or b. License to possess for sale or use of Ammonium Nitrate from a store house exceeding 30MT; or c. License to possess for use of Ammonium Nitrate from a store house attached to explosives manufacturing / Nitrous Oxide manufacturing unit; or d. License to possess for use Ammonium Nitrate for agricultural purpose from a storehouse.
A-4	Application for license to transport Ammonium Nitrate
A-5	Application for license to a. Import Ammonium Nitrate; or b. Export Ammonium Nitrate

Part -2: License Forms (see Rule 35)

Part -3: Return Forms (see rules 14,18, 20, 21, 27 and 36)

Part-4: Certificates (see Rules 18 and 34)

(Source: Ministry of Commerce and Industry. Dtd. 11.07.2012 New Delhi)

MoEF Notification on Environment (Protection) Amendment Rules, 2012

Following the September 2009 amendment to Environment (Protection) Act, 1986 (29 of 1986), and in exercise of the powers conferred by Sections 6 (being the rules to regulate environmental pollution) and 25 (being Power to make rules) of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986 (29 of 1986). This amended rule mainly addresses the prohibitions and restrictions on the location of industries and the carrying on processes and operations in different areas and its factors that were taken into consideration. Such factors being, the standards for quality of environment in its various aspects laid down for an area, the maximum allowable limits of

concentration of various environmental pollutants (including noise) or an area, the topographic and climatic features of an area. The amendment addresses the period of days where Central Government shall consider all the objections received against a notification and may impose prohibition or restrictions on location of such industries and carrying on of any process or operation in an area. Thus, inviting objections, suggestions from the date of its Official Gazette.

1. These rules may be called the Environment (Protection) Amendment Rules, 2012. They shall come into force on the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986, in clause (d) of sub-rule (3) of Rule 5, for the words “ three hundred and sixty five days”, the words “ **five hundred and forty five days**” shall be substituted.

(Source: MoEF Dated 28.06.2012. New Delhi)

UPCOMING LEGISLATION

MoEF Notification on Environment (Protection) Amendment Rules, 2012 – Coal Based Thermal Power Plants

The usage of cleaner coal and clean coal technologies is required due to the growing concern over ambient air quality and public health especially for coal based thermal power plants. The National Ambient Air Quality Standards (NAAQS) have been revised by the Government in November, 2009 for 12 pollutants which include Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂), Particulate Matter less than 10 micron (PM₁₀), PM_{2.5}, Ozone, Lead, CO, NH₃, Benzene, BaP (particulate phase), Arsenic and Nickel. Similarly, transporting large amounts of ash wastes energy and creates shortages of rail cars, port facilities, problems for power stations, including erosion in parts and materials, difficulty in pulverization, poor emission and flame temperature and excessive amounts of fly ash containing large amounts of unburned carbons. Currently, various actions are taken by the Government, for the abatement of pollution in general and, particularly in air quality management. This calls for an integrated approach to strengthen the monitoring and enforcement of emissions standards for both point and non-point sources, supply of fuel as per specifications etc.

Therefore, in exercise of the powers conferred by sub-section(2) of section 3, section 6 and section 25 of the Environment (Protection) Act, 1986 read with rule 5 of the Environment (Protection) Rules, 1986 the Centre Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986 for coal based thermal power plant, namely:

Draft Rules

1. (i) These rules may be called the Environment (Protection) Amendment Rules, 2012
(ii) They shall come into force on the date of their publication in the Official Gazette
2. In the Environment (Protection) Rules, 1986, (hereinafter referred to as the said rules), in rule 3, for sub-rule (8), the following sub-rule shall be substituted, namely:

(8) On and from the 1st day of January, 2014, the following coal based thermal power plants shall use raw or blended or beneficiated coal with an ash content not exceeding thirty four percent and gross calorific value not less than 4000Kcal/kg on daily average basis, namely:

- a. any standalone thermal power plant, located beyond five hundred kilometers from the pit-head; and
- b. any captive thermal power plant, of installed capacity of 100MW or above, and located beyond five hundred kilometers from the pit-head; and
- c. any captive power plant above 100 MW or standalone thermal power plant located in urban area or ecologically sensitive area notified by the Central Government or critically industrial polluted cluster or area irrespective of its distance from pit-head except any pit-head power plant;

Provided that any thermal power plant using Circulating Fluidised Bed Combustion or Atmosphere Fluidised Bed Combustion or Pressurized Fluidised Bed Combustion or Integrated Gasification Combined Cycle technologies or any other clean technologies as may be notified by the Central Government in the Official Gazette shall be exempted from clauses (a), (b) and (c).

Explanation: For the purpose of this rule:

- a. ‘**beneficiated coal**’ means coal containing gross calorific value not less than 4000Kcal/kg and ash content not exceeding thirty four percent in the raw coal obtained through physical separation or washing process;
- b. ‘**pit-head power plant**’ means power stations having captive transportation system for its exclusive use for transportation of coal from the loading point at the mining end upto the uploading point at the power station without using the normal public transportation system;
- c. ‘**ecologically sensitive area**’ means an area whose ecological balance is prone to be easily disturbed, identified and notified by Central Government;
- d. ‘**critically industrial polluted cluster or area**’ means an industrial area where pollution levels have reached or likely to reach to the critical level and which has been identified as such by the Central Government, State Government or CPCB or a SPCB; and

- e. 'urban area' means an area limit of a city having a population of more than 1 million according to the latest census."

(Source: MoEF. Dated 11.07.2012. New Delhi)

VOLUNTARY LEGISLATION

Bureau of Indian Standards - Indian Standards on LED lightings

Following Indian Standards on LED and LED based products have been published.

SNo.	IS No.	Title
1.	16101:2012	General Lighting – LEDs and LED Modules – Terms and Definitions
2.	16102 (Part 1): 2012	Self-Ballasted LED-Lamps for General Lighting Services Part 1 Safety Requirements
3.	16102 (Part 2): 2012	Self-Ballasted LED – Lamps for General Lighting Services Part 2 Performance Requirements
4.	16103 (Part2):2012	Led Modules for General Lighting – Safety Requirements
5.	15885 (Part 2 / Sec 13): 2012	Lamp Control Gear Part 2 Particular Requirements Section 13 d.c. or a.c. Supplied Electronic Controlgear for Led Modules
6.	16101:2012	d.c. or a.c. Supplied Electronic Control Gear for LED Modules – Performance Requirements
7.	16105:2012	Method of Measurement of Lumen Maintenance of Solid-State Light (LED) Sources
8.	16106:2012	Method of Electrical and Photometric Measurements of Solid-State Lighting (Led) Products
9.	16108:2012	Photobiological Safety of Lamps and Lamp Systems

A few more standards on Led Modules (IS16103-2) and Luminaires (IS 16107) are going to be published soon.

(Source: Bureau of Indian Standards, New Delhi)

COMPLIANCE WATCHDOG

OISD Seven Key Lessons from Recent Hot Work Accidents

Lessons learned from process safety incidents related to work permit system are shared by the Chemical Safety Board U.S.A. in their Safety Bulletin. Following is an excerpt from their safety Bulletin. OISD has developed a standard **OISD-STD105 on Work Permit System**, which is included

in Petroleum rules and elaborates the requirement to prevent such incidents. Also, these are covered in two more OISD standards namely, **OISD-GDN192 Safety Practices During Construction & OISD-GDN207 Contractor Safety**.

Seven lessons to be learned are:-

1. **Use Alternatives Whenever possible, avoid hot work and consider alternative methods.**
2. **Analyze the Hazards Prior to the initiation of hot work, perform a hazard assessment that identifies the scope of the work, potential hazards, and methods of hazard control.**

OISD-STD105 Work Permit System. Stipulates that a careful analysis should be made of the potential hazards and the operations to be performed to determine the appropriate safeguards and required personal protective equipment prior to starting work.

3. **Monitor the Atmosphere Conduct effective gas monitoring in the work area using a properly calibrated combustible gas detector prior to and during hot work activities, even in areas where a flammable atmosphere is not anticipated.**

This has also been detailed in **OISD-STD105**. No hot work should be permitted unless the Explosive meter reading is zero.

4. **Test the Area In work areas where flammable liquids and gases are stored or handled, drain and/or purge all equipment and piping before hot work is conducted. When welding on or in the vicinity of storage tanks and other containers, properly test and if necessary continu-ously monitor all surrounding tanks or adjacent spaces (not just the tank or container being worked on) for the presence of flammables and eliminate potential sources of flammables.**

In **OISD-STD105** Gas test for hydrocarbon, oxygen deficiency, toxic gases etc shall be conducted as applicable as a pre-requisite to issue permit for hot work & vessel entry etc. It has been emphasized that a careful analysis should be made of the potential hazards and the operations to be performed to determine the appropriate safeguards and required personal protective equipment prior to starting work. A system of monitoring either by automatic or by manual periodic verification shall be resorted to depending upon the prevalent conditions of the operating area.

In **OISD-GDN192**, it is stated that Welding or cutting of vessels / equipments used in Hydrocarbon / hazardous chemicals shall be done after proper gas freeing and verifying the same with the explosive-meter. Also, the confined space/equipment shall be gas freed and

cleaned. Absence of any toxic gas and any flammable gas above explosion limit shall be ensured with the help of gas detection instrument and explosive meter respectively.

5. Use Written Permits Ensure that qualified personnel familiar with the specific site hazards review and authorize all hot work and issue permits specifically identifying the work to be conducted and the required precautions.

In OISD-STD105 it has been told that the Work Permit System shall always operate on 'Owner - In-charge' concept. (Example: Process Unit - Shift In-charge; Depot - Depot In-charge; Installation - Installation Manager, Pipelines Installation- Shift In-charge etc). The concerned management shall issue the appropriate authority levels for various installations and type of permits based on this concept. Also, it has been stated that No hot / cold job shall be undertaken without a work permit except in the areas pre-determined and designated by the owner-in-charge. All work permits shall be issued by the authorized person of the area where work is to be carried out. For critical and for long duration works the authorizing level should be elevated.

6. Train Thoroughly Train personnel on hot work policies/procedures, proper use and calibration of combustible gas detectors, safety equipment, and job specific hazards and controls in a language understood by the workforce.

There are provisions in **OISD-STD105** that any person who is authorized to issue or receive the work permit shall be imparted training for a period of not less than one day covering various aspects of work permits system. Further all the person authorized to issue / receive or involved with the work permit shall be given a minimum of one day training once in two year on the work permit system and records maintained. Since several maintenance/ construction jobs are often carried out with assistance from contractors, it is essential to provide sufficient exposure to contractor and his employees as well on the work permit system.

7. Supervise Contractors Provide safety supervision for outside contractors conducting hot work. Inform contractors about site-specific hazards including the presence of flammable materials.

This has been detailed in OISD-GDN207, by stipulating to provide specific information to contractors and make workers aware on the hazards associated with job assigned. Also, to provide information about Risk Mitigation measures available at the place of work and to provide the contractor with information on Owners Safety Plan & Regulations, Emergency Management Plan, work permit system etc.

OISD-GDN192 stipulates that Execution agency should provide such supervision to ensure that workers perform their work with due regard to safety and health of theirs as well as that of others.

(Source: OISD. New Delhi)

The Inflammable Substances Act 1952

This Act allows the application of provisions of *The Petroleum Act* and *the Petroleum Rules* to any dangerously inflammable substance if the Central Government publishes a notification of it in the Official Gazette.

According to this Act "dangerously inflammable substance" means any liquid or other substance declared to be dangerously inflammable by this Act. The liquids and other substances hereinafter mentioned have been declared to be dangerously inflammable, namely:-

- (1) Acetone,
- (2) Calcium phosphide,
- (3) Carbide of calcium
- (4) Cinematograph films having a nitro-cellulose base,
- (5) Ethyl alcohol,
- (6) Methyl alcohol and
- (7) Wood naphtha.

This Act grants *Power to apply Petroleum Act* to dangerously inflammable substances as given below:

1. The Central Government may, by notification in the Official Gazette, apply any or all the provisions of the Petroleum Act and of the rules made there under, with such modifications as it may specify, to any dangerously inflammable substance, and thereupon the provisions so applied shall have effect as if such substance had been included in the definition of "petroleum" under that Act.
2. The Central Government may make rules providing specially for the testing of any dangerously inflammable substance to which any of the provisions of the Petroleum Act have been applied by notification under sub section (1), and such rules may supplement any of the provisions of Chapter 11 of that Act in order to adapt them to the special needs of such tests.

As of February 2002, there have been two notifications: (1) dated 31st March 1952, which extended the provisions of *the Petroleum Act* to *Ethyl alcohol*, and (2) dated 7th August 1983, which extended the provisions of *the Petroleum Act* to *Acetylene*.

In case any enterprise is involved in storage of the above notified inflammable substance, then it shall be required to comply with the provision of the above Act and Petroleum Rules, 1976 / 2000.

Prohibition of Smoking in Public Places Rules, 2008

In exercise of the power conferred by Section 31 of the Cigarettes and other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 (34 of 2003), the Central Government hereby makes the following Rules, in supersession to Rules 3 of the Cigarettes and other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Rules, 2004, namely:

1. Short title

- 1) These rules may be called the **Prohibition of Smoking in Public Places Rules, 2008**.
- 2) They shall come into force on the 2nd October, 2008.

2. Definitions

- a. **“Hotel”**: a building or part of a building where lodging, with or without board or other services, is provided by way of business for consideration monetary or otherwise and includes boarding house and guest house.
- b. **“Restaurant”**: any place to which the public has access and where any kind of food or drink is supplied for consumption on the premises by any person by way of business for consideration monetary or otherwise and shall include the open space surrounding such premises and includes:
 - i. refreshment rooms, banquet halls, discotheques, canteen, coffee house, pubs, bars, airport lounge, and the like.
- c. **“Open space”**: mentioned in Section 3(1) of the Act shall not include any place visited by the public such as open auditorium, stadium, railway station, bus stop/stand and other such places.
- d. **“Public place”**: as defined in Section 3(1) of the Act shall also include work places, shopping malls, and cinema halls.
- e. **“Smoking area or space”**: mentioned in the proviso to Section 4 of the Act shall mean a separately ventilated smoking room that:
 - i. is physically separated and surrounded by full height walls on all four sides;
 - ii. has an entrance with an automatically closing door normally kept in close position,
 - iii. has an air flow system, as specified in **Schedule I**
 - iv. has negative air pressure in comparison with the remainder of the building.
- f. Words and expressions used herein and not defined in these rules but defined in the Act shall have the meanings, respectively, assigned to them in the Act.

3. Prohibition of smoking in public place:

- 1) The owner, proprietor, manager, supervisor, or in charge of the affairs of a public place shall ensure that:
 - a.No person smokes in the public place (under his jurisdiction / implied).
 - b.The board as specified in **Schedule II** is displayed prominently at the entrance of the public place, in case there are more than one entrance at each such entrance and conspicuous place(s) inside. In case, if there are more than one floor, at each floor including the staircase and entrance to the lift/s at each floor.
 - c.No ashtrays, matches, lighters or other things designed to facilitate smoking are provided in the public place.
- 2) The owner, proprietor, manager, supervisor or incharge of the affairs of a public place shall notify and cause to be displayed prominently the name of the person(s) to whom a complaint may be made by a person(s) who observes any person violating the provision of these Rules.
- 3) If the owner, proprietor, manager, supervisor or the authorized officer of a public place fails to act on report of such violation, the owner, proprietor, manager, supervisor, or the authorized officer shall be liable to pay fine equivalent to the number of individual offences.

(Explanation: for the purposes of these rules the word offence means a person found violating any provision of the Rules).

4. Hotels, Restaurants, and Airports:

- 1) The owner, proprietor, manager, supervisor or in charge of the affairs of a hotel having thirty or more rooms or restaurants having seating capacity of thirty persons or more and the manager of the airport may provide for a smoking area or space as defined in rules 2(e).
- 2) Smoking area or space shall not be established at the entrance or exit of the hotel, restaurant, and the airport and shall be distinctively marked as “Smoking Area” in English and one Indian language, as applicable.
- 3) A smoking area or space shall be used only for the purpose of smoking and no other service(s) shall be allowed.
- 4) The owner, proprietor, manager, supervisor or in charge of the affairs of a hotel having thirty or more rooms may designate separate smoking rooms in the manner prescribed as under:
 - a.All the rooms so designated shall form a separate section in the same floor or wing, as the case may be. In case of more than one floors / wings the room shall be in one floor / wing as the case may be.
 - b.all such rooms shall be distinctively marked as “Smoking rooms” in English and one Indian language, as applicable.

c. The smoke from such room shall be ventilated outside and does not infiltrate / permeate into the non-smoking areas of the hotel including lobbies and the corridors.

5. Recovery of fine by authorized officers:

The authorized officers mentioned in **Schedule III** shall be competent to act under and compound the offences committed in violation of Section 4 of the Act.

Schedule - I
[See Rule 2 (e) (iii)]

- i. that is exhausted directly to the outside and not mixed back into the supply air for the other parts of the building; and
- ii. it is fitted with a non-re circulating exhaust ventilation system of an air cleaning system, or by a combination of the two, to ensure that the air discharges only in a manner that does not re-circulate or transfer it from a smoking area or space to non-smoking areas.

Schedule - II
[See Rule 3(b)]

- i. The board shall be of a minimum size of 60 cm by 30 cm of white background.
- ii. It shall contain a circle of no less than 15cm outer diameter with a red perimeter of no less than 3 cm wide with a picture, in the centre, of a cigarette or beedi with black smoke and crossed by a red band.
- iii. The width of the red band across the cigarette shall equal the width of the red perimeter.
- iv. The board shall contain in the warning "No Smoking Area - Smoking Here is an Offence" in English or one Indian language, as applicable.

Schedule - III
[See Rule 5]

Authorized Officers: Following persons shall be authorized to impose and collect the fine against the violation of Section 4.

Sl. No.	Person Authorized to take Action	Description of Public Place
1.	Inspectors of Central Excise / Income – tax Customs / Sales Tax / Health / Transport and above	All Public Places within their jurisdiction
2.	Station Master / Asstt. Station Master / Station Head / Station incharge	Railways and all its premises
3.	All Gazetted Officers of State / Central Govt. or equivalent rank and above in Autonomous Organisations/PSU	Government offices / premises and offices of the autonomous bodies and corporations

Sl. No.	Person Authorized to take Action	Description of Public Place
4.	Director / Medical Superintendent / Hospital Administrator	Government and Private Hospital
5.	Post Master and above	Respective Post Office in their jurisdiction
6.	Head of the Institution / HR Manager / Head of Administration	Private Offices / Workplaces
7.	College / School / Headmaster Principal / Teacher	Respective Educational Institutions
8.	Librarian / Asstt. Librarian / Library In charge / Other administrative staff in library	Libraries / Reading rooms
9.	Airport Manager / Officers of Airport Authority of India and Officers of all Schedule Airlines	Airports
10.	Director Public Health / Director Health Services	All Public Places
11.	In charge Administration in Central / State Government	All Public Places
12.	Nodal Officers / Focal Points of Anti-Tobacco Cell at District and State level	All Public Places

(Source: Ministry of Health and Family Welfare. Dated 30.05.2008. New Delhi)

Procedure to obtain Factory License under the Factories Act 1948 to Run the Factory

As per the Factories Act, 1948, the following is the detailed procedure to obtain the factory licence (as found in Annexure-I) along with the guidelines for approval of plan under the Factories Act, a checklist to ensure full compliance with the procedure and a schematic flow diagram of obtaining approval of plans.

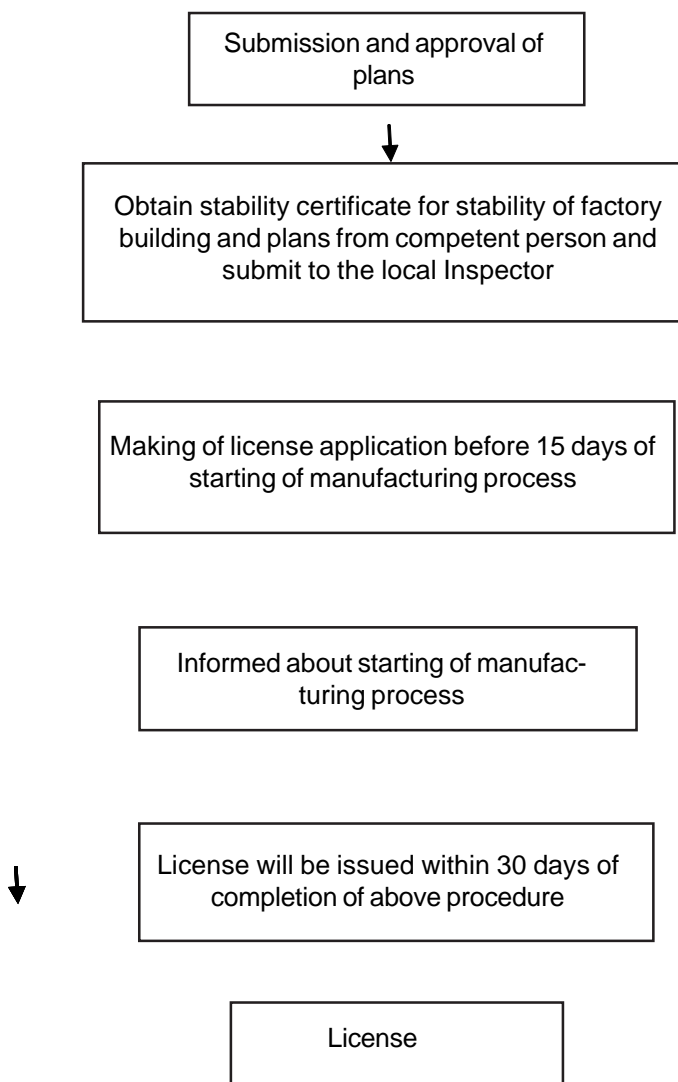
Annexure - I
Procedure to obtain Factory License under the Factories Act 1948 to Run the Factory

1.	Act/Rules	Section 6 of the Factories Act 1948 and Rule 3, 3A and 4 of the Gujarat Factories Rules, 1963
2.	Eligibility	In any unit, manufacturing process is carried out using power and employing 10 or more workers or not using power and employing 20 or more workers or the industry notified by the Government of Gujarat under section 85 to apply the provisions of the Act

3.	To whom apply?	The concern District Officer-Director/ Joint Director/ Deputy Director/ Assistant Director, Industrial Safety and Health under the control of Directorate Industrial Safety and Health
4.	Procedure to obtain Factory Licence	Submission of Factory plans in duplicate show in machinery layout, construction etc. along with Form no. 1
5.	Authority for disposal	1. Director, Industrial Safety and Health (for 50 and above 50 workers) 2. Joint Director, Industrial Safety and Health (below 50 workers)
6.	Time limit for disposal	1. Plan approval: 90days 2. Licence application: 30 days (after starting of manufacturing)
7.	List of document to be submitted with plans	1. Form No. 1 (with details filled in) 2. Copy of possession letter of building/ land/ shed 3. Copy of permission letter for construction from local authority 4. For chemical unit, information in schedule 7, list of raw materials, finished products, process description and flow chart
8.	List of document to be submitted with licence application	1. Copy of partnership deed or Memorandum of Association and Article of Association (which- ever is application) 2. Details regarding installed H.P. 3. Process description and flow chart 4. Stability certificate obtained from competent person

1. License application is to be made before 15 days of starting of manufacturing process. Plans must have approval before licence application is made.
2. Local Inspector shall be informed immediately regarding starting of manufacturing process in the factory. Then after, procedure to issue licence will be carried out.

Flow Chart to obtain Factory License



**DIRECTOR, INDUSTRIAL SAFETY & HEALTH,
GUJARAT STATE**

Guidelines for approval of plan under the Factories Act

S.N.	Criteria	Requirement
1.	Height of roof	Types of roof Minimum height required R.C.C. Roof 3.66 mtr A.C sheet 4.88 mtr G. I sheet 5.5 mtr
2.	Space for workers	Space required per worker- 14.2m ² (maximum height to be considered as 3.66 Mtr.)
3.	Window and Ventilations	Windows or exhaust fans should be provided if 18 mtr long/ wide rooms
4.	Doors	All doors should be of minimum size is 1.95 cm x 19 cm open able outwards

S.N.	Criteria	Requirement														
5.	Emergency	91.4 cms wide x 2 mtr height is required for all rooms														
6.	Emergency Staircase	Emergency staircase of minimum 91 cm width should be provided if factory having one or more floors should have at least one emergency staircase.														
7.	Urinal / Toilet	1. One toilet for 25 workers working at time and part thereof working at time 2. One urinal for 25 workers upto 100 workers working at time & one urinal for 50 workers if more than 100 workers working at time. 3. Separate facilities for toilet are required female workers at the scale mentioned above. 4. All the toilets and urinals should be connected with drainage system or septic tank. 5. Minimum floor areas = 16 sq. ft. 6. Minimum floor areas = 16 sq. ft.														
8.	Washing Facility	Following no. of washing places are required <table border="1"> <thead> <tr> <th>No. of workers</th> <th>Required washing place</th> </tr> </thead> <tbody> <tr> <td>Upto 20 workers</td> <td>one</td> </tr> <tr> <td>Upto 21 to 35</td> <td>two</td> </tr> <tr> <td>Upto 36 to 50</td> <td>three</td> </tr> <tr> <td>Upto 51 to 150</td> <td>four</td> </tr> <tr> <td>Upto 151 to 200</td> <td>five</td> </tr> <tr> <td>More than 200 workers-</td> <td>one for every 50 workers</td> </tr> </tbody> </table> <p>Minimum floor area of wash place = 25 sq. ft.</p>	No. of workers	Required washing place	Upto 20 workers	one	Upto 21 to 35	two	Upto 36 to 50	three	Upto 51 to 150	four	Upto 151 to 200	five	More than 200 workers-	one for every 50 workers
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Upto 151 to 200	five															
More than 200 workers-	one for every 50 workers															
9.	Cloak room	Separate cloak rooms are required for male and female workers if they are working in following types of industries for storing and drying cloths i. Engineering workshop ii. Chemical industry iii. Oil mills iv. Steel manufacturing factories v. Garage vi. Tanneries														
10.	Canteen	If 250 or more workers are to be engaged by any factory, canteen facility should be provided. In canteen there shall be separate place required for pantry, servicing table, store and washing place. 30% of total workers working at time is to be accommodated in canteen. Floor area required per person is 0.9m ² Canteen should be situated 50ft. away from latrine, urinals, boiler house, coal storage, ash pit or smoke. Minimum roof height should be 3.75 mtr.														

SNo.	Criteria	Requirement
11.	Rest Room & Lunch Room	If, 150 or more workers are to be engaged by any factor, rest room and lunch room facility should be provided. Area required 1.1 m ² / worker. (no. of workers working at time) Minimum height required is 3.75 mtr.
12.	Creche	When 30 or more female workers are working in any factory, crèche should be provided. i. Separate bath room, toilet, urinal facility are required for children in the crèche. ii. Separate play ground required for children, having minimum area of 11.9 sq. mtr. Per child.
13.	Ambulance Room	i. Required for factories employing 500 or more workers ii. Minimum area required for Ambulance room is 24 square meter.
14.	Occupational Health Centre	One room having 15 sq mtr area for 51 to 200 workers. Two such a rooms are required if workers are more than 200

- 1) For approval of plans:
 - a) No person smokes in the public place (under his jurisdiction / implied).
 - b) Submission of plans in two copies along with Form No. 1 to local Factory Inspector's office.
 - c) It should accompany information in Schedule-7 if it is a hazardous process factory,
 - d) Plans shall be at the specified scale, showing premises, plants, machineries, latrines, urinals, wash places, ventilation arrangement, natural light, fire fighting arrangement, drinking water arrangement, emergency exit, double staircase if it exceeds ground floor, exhaust system, height of ft ceilings (12' if RCC, 16' for AC sheets & 18' for GI sheets) etc.
 - e) The party will receive one copy of approval plan within 90 days.
- 2) For registration and grant of licence.
 - a) Submission of application in Form No. 2 (for registration) and Form No. 3 (for licence) along with the required chalan for fees and plan approval no./date before 15 days of the starting of factory.
 - b) Submission of a copy of partnership Deed/Association of Articles and Memorandum of Co.
 - c) Submission of stability Certificate obtained from competent person.
 - d) Information to the inspector having started manufacturing process.
 - e) Issuing of certificate of registration and licence.

(Source: FSSAI, Dated: 05.05.2011, New Delhi)

Approval of Plan

Preparation of drawings in duplicate as per the Factories Act and rules thereunder

Submission of plans in duplicate along with Form No. 1 and schedule-7 (if applicable) to District Office

Reply of any quarry raised by local Factory Inspector

Site visit of Factory Inspector

Sending of plans to DISH/ Jt. DISH with recommendation

Approval of Plans

Sending one approved copy of the applicant

(Source :Directorate General, Factory Advice Service & Labour Institutes)

FREQUENTLY ASKED QUESTIONS

Confined Spaces : Basics

Q1. What is a confined space?

Ans. A confined space is a space that has all three of the following characteristics:

- Is large enough and configured such that an employee can bodily enter and perform work; and
- Has limited openings for entry and exit; and
- Is not designed for continuous employee occupancy.

A confined space is defined as a space that meets both of the following conditions:

- Existing ventilation is insufficient to remove dangerous air contaminants and/or correct oxygen deficiency; and

- Access to or egress from the space is difficult.

Q2. Why are confined spaces dangerous to entrants?

Ans. By nature, confined spaces can be hazardous due to:

- Space configurations such as small openings and inwardly converging walls, which can trap an entrant, restrict easy entry and exit, or impede rescue.
- Atmospheric hazards such as gasoline tank vapors, combined with limited ventilation. Such conditions can cause asphyxiation or explosion.
- Physical hazards, such as unstable grain contained in silos, which can engulf a worker.
- All other serious hazards associated with general industry, such as electrical equipment, moving machinery, falling objects, and wet or slippery surfaces.

Q3. What does immediately dangerous to life or health (IDLH) mean?

Ans. This refers to any condition in a permit space that would:

- Cause irreversible adverse health effects; or
- Interfere with self-rescue; or
- Cause immediate or delayed threat to life or health.

Q4. What are the PELs?

Ans. Permissible exposure limits, or PELs, are occupational exposure standards that refer to the maximum concentration of airborne chemicals to which nearly all healthy persons can be exposed day after day without adverse health effects. Workers' exposure to concentration of materials in excess of the PEL can result in detrimental health effects, including illness and/or death.

Q5. What are the LEL (LFL) and UEL (UFL)?

Ans. The lower explosive limit, or LEL, is the lowest atmospheric concentration of fuel in the fuel-air mixture at which a gas or vapor can explode (the lower flammable limit, or LFL, is the lowest concentration at which the gas or vapor will burn). Fuel concentrations below the LEL and LFL are too lean and will not explode or burn.

The highest atmospheric concentration of a gas or vapor in the fuel-air mixture that can explode is called the upper explosive limit, or UEL. Above this concentration, the mixture will not explode because it is too rich (the mixture has too much fuel). The UFL is the maximum fuel concentration above which the mixture will not burn.

The composition of a fuel vapor and air mixture can change over time and may fluctuate within a space. Fluctuations occur because the fuel-air mixture moves around the space, particularly when people or other things create air currents that disturb the atmosphere. Consequently, the mixture is not uniformly distributed within the space.

Q6. What is “entry”?

Ans. An entry is considered to have occurred when any part of a person’s body crosses the plane of an opening into the space.

Q7. Is confined space entry always necessary, or is it possible to complete the task from the outside?

Ans. Each employer should ask these questions at the onset of each project. If possible, **avoid entering a confined space**. Every consideration should be given to completing the task from the outside.

Q8. Is a permit always needed in order to enter a confined space?

Ans. Not necessarily. There are two types of confined spaces. Those that require a permit for entry are classified as permit-required confined spaces (PRCS) and those that can be entered without a permit are called non-permit confined spaces (NPCS).

No permit system is required to enter and work in confined spaces. Only written operating and rescue procedures are needed. Also, results of atmospheric testing of the space shall be written and maintained at the work site for all affected employees to review.

Q9. What is the difference between permit-required and non-permit confined spaces?

Ans. A permit-required confined space fits the definition of a confined space and has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere (e.g., paint thinner).
- Contains a material that has a potential for engulfing the entrant (e.g., liquid, soil).
- Contains inwardly converging walls or a floor that slopes downward and tapers to a smaller cross-section where an entrant could be trapped or asphyxiated.
- Contains any other recognized serious safety or health hazard (e.g., unsafe temperature, electrical shock, corrosive chemicals).

A non-permit confined space fits the definition of a confined space, but does not contain or have the potential to contain any atmospheric hazard capable of causing death or serious physical harm.

Q10. What are the elements of a written permit-required confined space program?

Ans. At a minimum, the written permit-required confined space program must address:

- Posting of warning signs.
- Preventing unauthorized entry.

- Hazard identification procedures.
- Workplace evaluation procedures.
- Procedures, practices, and means necessary for safe permit space entry and closure operations.
- An entry permit system.
- Employee training for entrants, attendants, and entry supervisors.
- Providing work equipment and PPE at no cost to employees.
- A system for ensuring that:
 - Pre-entry testings are performed.
 - Pre-entry preparations are completed.
 - Acceptable conditions are attained.
- Monitoring the space as needed.
- Developing and implementing rescue and emergency measures.

Q11. What is an entry permit?

Ans. An entry permit is a document prepared by the employer or employer representative. It is designed to be used as a checklist to document the completion of all steps necessary to prepare for safe entry and work in a confined space.

The entry supervisor shall sign the entry permit to ensure that acceptable conditions have been attained in the permit space and to authorize entry. Further, the permit shall be posted near the confined space entry for entrants to verify that pre-entry procedures have been completed

Q12. What is included in the entry permit?

Ans. The entry permit should include:

- The location of the permit space to be entered.
- The purpose of the entry.
- The date and the authorized duration of the entry permit.
- The names of authorized entrants, attendants, and entry supervisors.
- The hazards of the permit space.
- The measures used to eliminate, isolate, or control permit space hazards before entry.
- The acceptable entry conditions.
- The results of initial and periodic tests performed, along with the names of the testers and when these tests were performed.
- The verified rescue and emergency services to be summoned.
- The communication system.
- The equipment to be used during entry.

- Any additional information necessary to ensure employee safety.
- Any additional permits issued to authorize special work in the space (such as hot work).

Q13. How does an employer get an entry permit?

Ans. Each employer needs to develop his or her own entry permit that addresses the specific hazards and controls for that particular confined space entry.

An entry permit is not a form issued by Cal/OSHA. Employers do not need to apply for or submit a completed permit to Cal/OSHA (see Attachment C, “Confined Space Entry Permit Sample” and appendices D-1 and D-2 of T8 CCR, “Confined Space Regulations”).

Q14. When is an entry permit valid?

Ans. The entry permit is valid once it has been signed by the entry supervisor.

Q15. Is a permit valid for more than one shift?

Ans. An entry permit is valid for more than one shift if information documented in the entry permit contains provisions that cover the shifts:

- Names of all involved employees (entry team plus next shift).
- Clearly delineated transfer of responsibilities from one shift to another.
- Acceptable entry conditions are maintained.
- Entry operations remain consistent with terms of the entry permit.

Q16. How long should a facility owner keep the entry permit?

Ans. The entry permit should be kept on file for one year.

Q17. Why are employers required to review canceled permits annually?

Ans. The annual review of canceled permits allows employers to assess and revise, if needed, their permit space program to ensure that confined space workers are protected from space hazards.

Q18. Why are employers required to review canceled permits annually?

“Hot work” includes any operation capable of providing a source of ignition. Examples include electrical tools with open brushes and commutators or any device that produces sparks or could become an ignition source. One of the dangers of hot work operations is the increased risk of fire

and explosion because of the introduction of an ignition source into a space with an already-hazardous atmosphere (see Attachment A, “Hot Work Permit Sample”).

Q19. Do hot work operations require special considerations?

Ans. Yes. Employers must evaluate existing hazards within the space *and* potential hazards created from hot work operations, and then:

- Take special precautions (such as improving ventilation, inspecting for frayed wires, implementing fire-suppression measures or using low-voltage, non-sparking tools) to reduce potential hazards; and
- Have a written hot work permit for every hot work operation.

Q20. What responsibility does the owner have when hiring a contractor to do work in a confined space within the facility?

Ans. The owner must inform the contractor:

- That the space is a confined space and that entry must be by permit only; and
- About all known hazards; and
- About any precautions that you, as the owner, are already instituting for the protection of employees.

Q21. Once the job is complete, is the contractor required to confer with the host employer?

Ans. Yes. The contractor is obligated to inform the host employer of his or her experience with the space and of any additional hazards that may have been created by the work.

Q22. What if some of the site owner’s employees are doing work in the confined space alongside the contractor’s employees?

In this case, the site owner needs to coordinate entry operations with the contractor so that both understand the type of work and hazards involved. Such work can create new hazards, and everyone working inside the confined space must be alerted. If working together is unsafe, the two teams may have to plan a different strategy.

DID YOU KNOW

Checklist for Conducting a Mock Drill (Onsite Emergency)

1. Is Onsite Emergency Plan (OSEP) updated in all respects?
2. Is Emergency Control Center (ECC) identified, properly given signboard?
3. Is it Fully equipped?
4. Is assembly point identified, given sign-board and incharge of assembly point informed?
5. Whether, All Emergency Facilities like Hydrants, Hose Pipes, couplings etc. in working order and condition?
6. Is OSEP and responsibilities are communicated to all Key Personnel, Essential?
7. Employees, workers, contractors and security persons are aware of their responsibilities?
8. Is Emergency Communication system as envisaged is in working order and is it known to all concerned (Pattern of emergency communication)?
9. Are Emergency Escapes properly maintained, obstruction free and marked as Emergency Escapes (with glowing paint for night vision)?
10. Is a Table Top Exercise conducted and respective roles and responsibilities Verified and understood?
11. Are Functional Exercises conducted with respective functionaries and Site Controller / Incident Controllers?
12. Are the Mutual Assistance organisations / Individuals informed about the Plan, the need, formal communication or agreement sent and accepted?
13. Is Infrastructure of Mutual Assistance organizations assigned for emergency help?
14. Is emergency transport / emergency medical help geared up?
15. Are important telephone numbers displays displayed at ECC, Site controller, P&A Office, Security and in plant areas?
16. Are neighborhood informed of possible consequences?
17. Initial mock drills are to be "informed ones" regarding time/ location. Is it Done?
18. In subsequent mock drills element of surprise has to slowly increase. Is it Planned?
19. Are Mock drill evaluation sheets prepared and observers briefed about their Role and observations to be emphasized?
20. Is a Debriefing session arranged after the mock drill and review undertaken about strengths and weakness?
21. Is it planned to take photographs and video in mock drill evaluation?

22. Are statutory authorities informed?

Checklist for assessing onsite emergency plan mockdrill

- Nature of Emergency & Location
- When and how was the emergency detected?
- By whom?
- Was it conveyed promptly to Incident Controller / Site Controller?
- Was the information appropriate and clear?
- What was the decision of Emergency Controller / Incident Controller?
- Was emergency warning siren / alarm given?
- When?
- Who instructed to give warning siren / alarm?
- Who operated emergency warning?
- Was the siren pattern proper?
- Was there reaction of all concerned?
- How was the emergency mitigated?
- Was it promptly mitigated?
- Did all concerned participated?
- Reaction of Incident Controller, where emergency occurred
- What was the reaction of other incident controllers?
- Any injury or casualty reported
- How was such situation managed?
- Was stretcher available?
- Was Information to doctor sent?
- Was first aid rendered?
- Any external help sought
- Was mutual aid available or reported?

FIRE RELATED

- Was fire pump started immediately?
- Who started the pump?
- Who fought the fire?
- Was protective equipment available?
- Was information for additional help and public services sought?

EVACUATION

- Was evacuation necessary?
- Was it ordered?
- By whom?
- Did people assemble at assembly point?
- Did any one make a count of persons at assembly & also
- Did vehicles reach in time?
- Was there crowd around emergency location?
- Any additional observations.

EQMS India Pvt. Ltd.

EIA POLICY

CAPABILITY STATEMENT

EQMS India Pvt. Ltd endeavors to achieve **Ever Rising Standards of “ECO-EFFICIENCY”**

PROJECT OUTREACH

EQMS is a leading consultancy company based in India offering specialized services in areas of Environmental, Social and Occupational Health & Safety. With our head office in New Delhi, we have spread ourselves across all over India and abroad. The Environment Impact Assessment division of EQMS specialize in diverge environmental services as carrying out Environment Assessment Studies, Social Assessment Studies, Due Diligence etc.

EQMS has long experience in executing multi faceted projects funded by organizations like World Bank, ADB, USAID, UNDP, MoEF, amongst others. We have successfully executed projects related to environmental and social assessment to the satisfaction of our clients. Our team of dedicated professionals and client-centric approach has made our organization reach new benchmarks and serve a wide range of clientele as is depicted by our client profile.

OUR STRENGTHS

- Experienced **Environmental and Social Impact Assessment** experts having long experience in **carrying out environmental and social impact assessments** for infrastructural and industrial development projects.
- Assisting the new and expanding developmental projects through the process of **Environmental Clearance** in line with the principles of Sustainable Development.
- Conduct of a number of **environmental studies for MoEF, NIPF, European Union Commission, US Commercial Service, Canadian High Commission**
- Undertaken various projects funded by international funding agencies like UNIDO, UNDP, USAID, World Bank and Asian Development Bank.
- Experienced and Qualified Environmental, Safety and Social Accountability Auditors. An extensive and comprehensive network with EHS Professionals.
- Laboratory services through **MoEF and SPCB approved laboratories**.
- Conduct of Public Hearing

ONE - DAY PROGRAMME ON “SAFETY CLIMATE ASSESSMENT”

BACKGROUND TRAINING KIT

In spite of massive investments in technological, human & financial resources, the leading corporates are continuingly endeavouring to identify the right kind of strategy as a part of organizational overall safety management approach to address the underlying causes of accidents and lower the plateau in their safety performance. Thus, developing an appropriate safety culture throughout an industry, one focuses on four key areas, namely:

- The nature of safety culture and safety climate (i.e., the underpinning concepts and characteristics);
- The potential of safety climate assessments in securing continuous improvements in health and safety;
- The development of appropriate safety climate indicators and measures; and
- The application of practical (and industry specific) methodologies of safety climate assessment (for example, in benchmarking and monitoring)

THE PROPOSAL

This is the context EQMS proposes to conduct the above One number of **One Day Programme on “SAFETY CLIMATE ASSESSMENT”**

OBJECTIVES

At the end of the programme participants will:

- Learn methods / techniques to assess current safety culture
- Understand what is Safety Culture and Safety Climate & its role in comprehending factors that lead to accidents / methods of developing safety culture
- Understand basic principles & techniques of conducting safety climate survey / assessment (i.e. the general approaches to assessing safety climate, climate indicators and measures)
- Appreciate what the elements are of an enterprise level safety climate programme
- Learn how to design, implement and measure the effectiveness of an enterprise level safety climate assessment programme

- Understand how effective management commitment is to address safety issues at workplace by safety climate assessment analysis at enterprise level.

PARTICIPANTS

Top Management / Middle Management / Line Managers (Maximum 20 to 25 per programme).

BENEFITS

- 1 Improved understanding to design and analyse a successful and customized enterprise level Safety Climate Assessment.
- 2 Application of Safety Climate Assessment Surveys / Techniques at Management & Operational Level.

COST PER PROGRAMME

EQMS shall charge professional fee based on number of participants. In addition actual travel (Delhi-Site-Delhi) for one EQMS professional and Government Service Tax as applicable as per FY on professional charges and expenses shall also be payable. The local conveyance, lodging & boarding shall be provided by the company free of cost. The above payment shall be made through demand draft in favour of EQMS India Pvt. Ltd. payable at Delhi.

Contact-

EHS Manager : Ms. Renjini Achary

EQMS INDIA PVT. LTD.

304 & 305, Rishabh Corporate Tower, Plot No. 16, Community Centre, Karkardooma, Delhi – 110 092
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Email : eqms@eqmsindia.org
 rachary@eqmsindia.org
URL : www.eqmsindia.com

ONE-DAY EQMS PROFESSIONAL DEVELOPMENT PROGRAMME

ON

ELECTRICAL SAFETY AT WORK PLACE

BACKGROUND

Electricity is a good servant but a bad master. Electricity is perhaps the largest single contributor to accidents, loss of life & property in Indian as well as Global perspective. About 40 % of all accidents are caused by or aggravated by deficiencies in the electrical system according to a study by National Institute for Occupational Safety and Health (NIOSH). This is where EQMS Electrical Safety Training comes in. This “Electrical Safety” training covers safe handling practices in temporary and permanent electrical installations spread across manufacturing & construction sectors.

THE PROPOSAL

The programme will bring in a marked positive change in the way people perceive electricity & deal with matters pertaining to electricity. EQMS proposes to conduct this specialized programme for company officials to gain a greater awareness on the safe use of electricity. The suggested scope of the programme is given in the programme structure.

TRAINING OBJECTIVES

At the end of the course participants should:

- Describe what is “Electrical Energy” and the potential risks involved
- Be aware of general strategies for managing Electrical Safety
- Appreciate electrical safe work practices

PARTICIPANTS

Senior & Middle Managers from all functions (preferred number of participants: Maximum 15) and does not require in-depth knowledge of electrical engineering.

Contact-

Mr. Dipil Kumar Vasu
Manager (SHE Management Systems) :

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304 & 305, Rishabh Corporate Tower, Plot No. 16,
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dkv@eqmsindia.org

URL : www.eqmsindia.com

5 - DAYS OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS (OH&S) AUDITOR / LEAD AUDITOR TRAINING COURSE CERTIFIED BY IRCA, UK

DUAL CERTIFIED TRAINING COURSE

This Five-days non-residential training course is offered by EQMS and is a registered course with **International Register for Certificated Auditor, UK (IRCA Reference No. A17379)**. This course has been specifically designed to provide specialized training to enhance knowledge, professional skills and competence to effectively audit an organization's Occupational Health and Safety Management Systems (as per OHSAS-18001:2007 version). The course provides both the technical knowledge and practical skills essential for Occupational Health and Safety Management Systems Auditor. **It is strongly recommended that all interested delegates should possess prior knowledge / basic understanding of OHSAS 18001 or an equivalent Standard.**

COURSE OBJECTIVES AND CONTENTS

- *Understand purpose of an OHS management system, including the principles, processes and techniques used for the assessment of risk and the significance of these in OHS management systems.*
- *Scope of OHS management systems and understanding of requirements for Design, Implementation and Assessment (including other criteria as OHS legislation) against which OHS audit could be performed.*
- *Acquire knowledge and skills to plan, conduct, report and follow-up management system audit in accordance with ISO-19011.*

The above course is designed as per OHSAS 18001:2007 requirements. The total course time devoted to direct instruction and assign team and individual activities shall be at least 40 hours.

COURSE ASSESSMENT

The participants overall performance is evaluated using two independent elements: first tutors continuous assessment based on his / her participation in the discussion and presentations during the course and second formal written examination on the last day of the course. The minimum passing grade shall be 70% in written examination.

DATE / VENUE INFORMATION

26th to 30th November, 2012

Pride Park Premier Hotel, 353-357, Sector -29
City Centre, Gurgaon, Haryana, India – 122001,
Tel: + 91-124-4604631

WHY THIS COURSE?

- **IRCA, U.K. certified course.** The successful completion of the above course will satisfy the training requirements for registration to all grades of IRCA OH&S MS Auditors.
- EQMS course faculty having extensive experience and outstanding credibility in the design, implementation and auditing of OHS management systems of diverse industry sectors.
- Specialization on Occupational Health and Safety Legislation for Industry and Business
- Emphasis on experience sharing and strengthening "hands on" auditing skill of participants.

COURSE CERTIFICATE

Participants passing continual assessment and written examination will be awarded a certificate of successful completion of the course. EQMS shall send the course certificates within 3 weeks from the final date of the conduct of the course. Attendance for all the five days and all duration of the course is a pre-condition for course qualification apart from performance in the written examination and continual assessment.

TARGET PARTICIPANTS

20 Participants on first cum first serve basis

COURSE FEE

Rs. 20,000 (Rupees Twenty Thousand Only) as course fee for the above non residential course. In addition, Government Service Tax as applicable as per FY on the above course fee shall be paid additionally to EQMS India Pvt Ltd,

PAYMENT TERMS 2 weeks in advance before the commencement of the course. In case of any confirmation and cancellation 1 week before the commencement of the course 50 % of the advance payment shall be returned only.

In case of no show by the participant for any reason on the day of the course 75 % of the total course fee shall be charged from the participant.

PLEASE SEND FILLED IN REGISTRATION FORM

**5 - DAY OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS (OH&S)
AUDITOR / LEAD AUDITOR TRAINING COURSE CERTIFIED BY IRCA, UK**

Enclosed herewith D/D for Rs: _____

Dated _____ Drawn on: _____

Payable to **EQMS INDIA PVT. LTD.**, at **New Delhi**

Contact Person: _____

Company: _____

Address: _____

Tel No: _____ Fax _____ Email: _____

	Participant 1	Participant 2	Participant 3
Name	_____	_____	_____
Designation	_____	_____	_____
Department	_____	_____	_____
Phone	_____	_____	_____
Fax	_____	_____	_____

Course Co-ordination Officer:
Nadeem Ashraf – Deputy Director
Kunal Saxena

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Environmental Legislation Update

ONE-DAY SPECIALIZED PROGRAMME ON “DESIGN & IMPLEMENTATION OF ENTERPRISE LEVEL EFFECTIVE BEHAVIOURAL BASED SAFETY PROGRAMME”

KEY QUESTIONS

Behavioural modifications techniques have succeeded in numerous industries including manufacturing & construction in reducing accident rates and systematically addressing the underline causes of unsafe / at-risk behaviours.

THE PROPOSAL

This is the context **EQMS** conducts the above One-Day Specialised Programme on “Design & Implementation of Enterprise Level Effective Behavioural Based Safety Programme” senior executives of your company so as to enable organization demonstrate clear, measurable and sustainable improvements in their safety performance and have excellent safety management system based on **safe behaviours**.

OBJECTIVES

At the end of the programme participants will :

- Understand safety culture and what causes accidents
- Understand basic principles & techniques of behavioural modification
- Appreciate what are the elements of an enterprise level behavioural safety programme
- Learn how to design and implement and measure the effectiveness of an enterprise level behavioural based safety programme
- Understand the barriers and factors to be addressed for developing successful enterprise level behavioural based safety programme.

PARTICIPANTS

Top Management / Middle Management / Line Managers

BENEFITS

- Clear and comprehensive of understanding of the basic principles & fundamentals of behavioural modification technique
- Improved understanding to design a successful and customized enterprise level behavioural based safety programme.

Course Co-ordination Officer : Kunal Saxena

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Email : eqms@eqmsindia.org • Url : www.eqmsindia.com

With the objective of assisting industry to continually enhance its EHS / Social Performance and competitiveness EQMS offers a wide range of strategic services to its valued customers.

EQMS Leadership Services:

Safety and Risk Consultancy Services	Safety and Risk Training Services	EHS Management Consultancy / Training Services
HAZOP / Process Safety Management (OHSA)	Process Hazard Analysis Techniques	Environmental & Social Impact Assessment / Environmental Clearances / Due Diligence Audit (Phase I & II)
Safety Package Studies	6-Tier Contractor Safety Management Systems	Behavioural based Safety Management System
QRA	Process Risk Management	Quality Management System (ISO 9001:2008 & ISO/TS 16489:2002)
Process Risk Management	Project Safety Management	Food Safety Management System (ISO 22000:2005)
Process Safety Audit / Assessment	Lockout Tagout Safety	Responsible Care (RC 14001:2005)
Fire Risk Assessment	Safety Induction & Leadership Trainings for Line & Top Management	EHS Management System (ISO 14001:2004 / OHSAS 18001:2007)
Electrical Safety Audit	Defensive Driving Safety Trainings	Construction Environment & Safety Management Plan
Project Safety Audit	Hazardous Chemicals Manager Programme	Environment / Safety Audits
Safety Perception / Culture Survey	Development of EHS Conditions of Contract	Development of Corporate EHSMS framework / Safety Standards
Emergency Response Plan	Hazard Management Based Training	EHS legislation Identification, Assessment & Training

For further details, contact

EQMS INDIA PVT. LTD.

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