

# OIL MINES REGULATIONS, 1984

## CHAPTER-1

### PRELIMINARY

#### 1. Short Title, Extent and Application

- (1) These regulations may be called the Oil Mines Regulations, 1984.
- (2) They extend to the whole of India.
- (3) They shall apply to every oil mine.

#### 2. Definitions – In these regulations, unless the context otherwise require -

- (1) “Act” means the Mines Act 1952;
- (2) “Acidizing” means the treatment of oil-bearing formation by chemical reaction with acid in order to increase production;
- (3) “annular space” means the space surrounding pipe suspended in the well. The outer wall of the annular space may be an open hole or it may be string of larger pipe.
- (4) “approved” means approved by the Chief Inspector by a general or special order in writing and subject to such conditions as he may specify therein;
- (5) “bleed” means to drain off liquid or gas generally through a valve to bleed off means a controlled release of the pressure of a well or the pressurized equipment;
- (6) “blowout” means uncontrolled sudden violent escape of fluids from a well;
- (7) “blowout preventer” means –
  - (a) a device attached above the casing of a well to control pressure and to prevent escape of fluids from the annular space between tubing and casing or between drill pipe and casing or to shut-off the well if no drill pipe or tubing is in the hole, should a kick or blowout occur, or
  - (b) a device attached above the well-head or christmas tree or riser pipes to control pressure during work-over operations and to prevent escape of fluids from the space between the wire-line and tubing or casing, should a kick or blowout occur;
- (8) “casing” means a steel pipe lowered into a well during drilling to prevent caving of the wells and to hold back fluids from entering the well ;
- (9) “casing line” means steel wire rope used for lowering and raising of pipes in the well through crown block and traveling block;
- (10) “cat-line” means a rope used to lift a pipe, drilling tool and other equipment from ground or base, pipe rack, tool platform or cat-walk on the derrick floor ;
- (11) “cat-head” means a device mounted on the draw-works for making or breaking pipe connections or for operation of cat-line with the help of power from draw-works ;

- (12) “cat-walk” means footway giving access to rig floor;
- (13) “cellar” means an excavation under the derrick to provide space for items or equipment at the top of the well which also serves as a pit to collect drainage of water and other fluids under the floor for subsequent disposal ;
- (14) “cementing” means operation by which cement and water mixture is pumped down through the casing in such a way that it fills the space between casing and walls of the well to a predetermined height above the bottom of the well ;
- (15) “christmas tree” means the valves and fitting assembled at the top of a well head to control the flow of the fluids :
- (16) “Competent person” means a person who is capable of identifying existing and predictable hazards in the surroundings of working conditions which are unsanitary, hazardous or dangerous to work-persons and who has authorization to take prompt corrective measures to eliminate them.
- (17) “completed well” means a well in which the petroleum bearing formations is open to the well, complete with equipment installed in the well and at the well-head so that it is physically able to produce petroleum ;
- (18) “crown block “ means a multi-sheaved assembly mounted at the top of the derrick or mast and used in conjunction with a travelling block for raising and lowering of equipment in drilling and servicing a well ;
- (19) “derrick “ means a compound latticed structure used over the well for drilling or well servicing purposes, and includes a mast ;
- (20) “ District Magistrate “ in relation to any mine means the District Magistrate or the Deputy Commissioner as the case may be, who is vested with the executive powers of maintaining law and order in the revenue district in which the mine is situated.
- Provided that in the case of a mine which is situated partly in one district and partly in another, the District Magistrate for the purposes of these regulations shall be the District Magistrate authorized in this behalf by the Central Government;
- (21) “ draw-works “ means an assembly of shafts, sprockets, chains, pulleys, bells, clutches, catheads and/or other mechanical devices, suitably mounted and provided with controls for hoisting, operating and handling the equipment used for drilling a well or servicing a producing well ;
- (22) “ drilling “ means creating a hole in the earth’s crust by mechanical means (irrespective of whether the hole caused by perforation is vertical, inclined or horizontal) and includes all operations for preventing collapse of the sides of such hole or for preventing such hole from being filled with extraneous material including water ;
- (23) “drilling rig “ means the complete structure and machinery required for drilling purposes at the bore hole site :
- (24) “elevator “ means a steel mechanical device used in connection with the hoisting equipment suspended from the traveling block, for holding in suspension, pipe or rod being lowered into or pulled from a well ;

- (25) “ emergency-escape device” means an inclined wire line to carry a safety carriage or slide running from a point above the monkey board to a ground anchor and includes such carriage or slide ;
- (26) “explosimeter “ means an instrument to measure the concentration of flammable gas ;
- (27) “ explosive “ shall have the same meaning as is assigned to that term in the Indian Explosives Act, 1984 ;
- (28) “ flame-proof equipment “ means an equipment that can withstand without injury any explosion of the flammable gas that may occur within it and can prevent the transmission of flame such as will ignite the flammable gas which may be present in the surrounding atmosphere ;
- (29) “flammable” means capable of being easily ignited, burning intensely or having a rapid rate of flame spread ;
- (30) “flash point” will have the same meaning as is assigned to the term in the Petroleum and Natural Gas Rules 1959 framed under Oilfields (Regulation and Development) Act. 1948 ;
- (31) “flare” means an open flame used to dispose of unwanted gas ;
- (32) “floor block” means a single sheave pulley or snatch block fixed at or near floor level by means of which the direction of pull on a rope can be varied ;
- (33) “form” means a form as set out in the First Schedule ;
- (34) “fracturing” means the process of forcing a fluid in the subsurface strata with the purpose of opening flow passages for production ;
- (35) “gas” means the vapour state of the hydrocarbons occurring in , or derived from petroleum ;
- (36) “gas free” means an environment in which
- (i) the percentage of flammable gas does not exceed 20 percent of lower explosive limit of such gas,
  - (ii) the percentage of oxygen in not less than 19, and
- (37) “gas well” means a well which is on continuous production from a gas bearing zone or a well in which casing is run for continuous production of gas ;
- (38) “group gathering station” means a production installation used for gathering , treating , or storing and transporting petroleum and includes central tank farm , oil collecting station , gas compressor station , and well-head installation ,
- (39) “hazardous area” means an area where hazardous atmosphere exists or is likely to occur ;
- (40) “hazardous atmosphere” means an atmosphere containing any flammable gas in a concentration capable of ignition ;
- (41) “installation” means any fixed installation or part of a fixed installation which is maintained within the mine or is to be established there in connection with exploitation of petroleum or with exploration with a view to such exploitation;

- (42) “installation manager” means the person appointed in writing by the owner or agent of the mine to be in charge of and responsible for all operations and activities on or in connection with the installation ;
- (43) “ionising radiation” means emission due to self-disruptive fission of atomic nucleus of any radioactive substance , which is hazardous to health ;
- (44) “kick” means a sudden pressure-surge of short duration caused by influx of formation fluids entering well being drilled ;
- (45) “kelly cock” means a valve installed between swivel and kelly or kelly and drill pipe to control pressure , should a high pressure backflow of fluids occur , and to keep the pressure off the swivel and rotary hose ;
- (46) “lubricator” means a device fitted on top of a Christmas tree and consists of a pressure sealing device at its upper end so as to afford an effective seal on the wireline or other connection attached to tools run into the well ;
- (47) “machinery” means –
- (a) any stationery or portable engine, air or gas compressor, boiler or steam apparatus, or
  - (b) any such apparatus, appliance or combination of appliances intended for developing, storing, transmitting, converting or utilising energy, or
  - (c) any such apparatus, appliance or combination of appliances if any power developed, stored, transmitted, converted or utilised thereby is, under or intended for use in connection with mining operations;
- (47A) “major accident” means an occurrence including in particular, a major emission of fire or explosion from uncontrolled developments in the course of drilling and for production, storage, handling or transportation of petroleum or machinery or owing to natural events leading to serious effects (both immediate and delayed as well as inside or outside the installation) causing or likely to cause substantial loss of life or property;
- (48) “monkey board” means a movable or fixed platform installed above derrick floor on which work-persons stand to handle pipes or other equipment racked on the derrick ;
- (49) “mud” means a liquid that is circulated through the well during drilling or work-over operations ;
- (50) “mud tank” means the reservoir or tank through which the drilling mud is cycled to allow sand and fine sediments to settle out where additives are mixed with mud and where the fluid is temporarily stored before being pumped back into the well ;
- (51) “mud-pump” means a pump used to circulate mud down the drill pipe and up the annulus under normal operation ;
- (52) “official” means a person appointed in writing by the owner, agent or manager to perform duties of supervision in a mine or part thereof and includes installation manager, safety officer, fire officer, engineer (installation) and surveyor\*.
- (53) “oil well” means a well which is producing or is capable of producing petroleum;
- (54) “out-line” means a rope used to carry pipes, drilling tools or other equipment from a derrick to the derrick walk or other location outside the derrick;

- (55) "petroleum" means naturally occurring hydrocarbons in a free state whether in the form of natural gas or in a liquid, viscous or solid form but does not include helium occurring in association with petroleum;
- (56) "pipe-rack" means a structure located adjacent to but usually below the level of the rig floor, on which pipe or casing may be stored or racked;
- (57) "platform" means a working space for persons, elevated above the surrounding floor or ground or sea for the operation of machinery and equipment;
- (58) "quarter" means a period of three months ending on the 31<sup>st</sup> March, 30<sup>th</sup> June, 30<sup>th</sup> September or 31<sup>st</sup> December;
- (59) "racked" refers to tubular goods or rods standing in the derrick or mast or stored on a pipe rack;
- (60) "racking platform" means a platform in the derrick or mast at an elevation where a derrick man is normally required to handle stands being racked;
- (61) "railway" means a railways as defined in the Indian Railways Act. 1890;
- (62) "Regional Inspector" means the inspector of mines incharge of the region or local area or areas in which the mine is situated or the group or class or mines to which the mine belongs, over which he exercises his powers under the Act;
- (63) "rigging-up" means an act of assembling a drilling or work-over rig and auxiliary equipment prior to commencement of drilling or work-over operation;
- (64) "river" means any stream or current of water whether seasonal or perennial and includes its banks extending upto the highest known flood level;
- (65) "rotary hose" means the hose that conducts the circulating fluid from the stand pipe to the swivel and kelly;
- (66) "rotary table" means a power operated turn-table on the rig floor primarily used for rotating the drilling string;
- (67) "schedule" means a schedule appended to these regulations;
- (68) "stand(s)" means sections of pipe consisting of two or more made-up lengths which are racked in a derrick;
- (69) "standard railing" means a vertical barrier erected along exposed edges of a floor opening, wall opening, ramps, platform or walk-way to prevent falls of persons;
- (70) "sub-structure" means the foundation on which normally the derrick and engines sit;
- (71) "swabbing" means the operation of a lifting device on a wireline to bring well fluids to the surface when the well does not flow naturally;
- (72) "toe board" means a vertical barrier at floor level erected along exposed edges of a floor opening, wall opening, platform, walk-way or ramp to prevent falls of materials;
- (73) "toxic dust/gas" means any dust or gas which can cause a reversible or irreversible disturbance of the normal physiological processes of one or more bodily systems;

- (74) “travelling block” means a multi-sheaved pulley block used in conjunction with the fixed crown block for raising and lowering the drilling string, casing, tubing rods and other tools;
- (75) “well” means a hole in the ground—
- (a) made or being made by drilling, boring or in any other manner from which petroleum is obtained or obtainable or for the purpose of obtaining petroleum;
  - (b) used, drilled or being drilled for the purpose of obtaining water for injection or for injecting natural gas, air, water or any other substance into underground formation;
- (76) “wellhead” means an assembly on top of the well casing strings with outlets and valves for controlling flow of fluids;
- (77) “well perforating” means perforating well casing and/or cement to provide flow passage for production or for testing or well activation purposes;
- (78) “work-over” or “well-servicing” means one or more of a variety of remedial operations on an oil well with the intention of restoring or increasing production;
- (79) “zone ‘O’ hazardous area” means an area in which hazardous atmosphere is continuously present;
- (80) “zone 1 hazardous area” means an area in which a hazardous atmosphere is likely to occur under normal operating conditions;
- (81) “zone 2 hazardous area” means an area in which a hazardous atmosphere is likely to occur only under abnormal operating conditions;

## CHAPTER-II : RETURNS, NOTICES AND PLANS

### 3. *Notice of Opening*

- (1) The notice required by section 16 of the Act shall be submitted in Form I.
- (2) When a mine has been opened, the owner, agent or manager shall forthwith communicate the actual date of opening to the Chief Inspector and to the Regional Inspector.

### 4. *Quarterly Returns*

On or before the 20<sup>th</sup> day of April, July, October and January in every year, the owner, agent or manager shall submit to the Chief Inspector and the Regional Inspector correct returns in respect of the preceding quarter in Form II.

### 5. *Annual Returns*

On or before the 20<sup>th</sup> day of February every year, the owner, agent or manager shall submit to the District Magistrate and to the Chief Inspector returns in respect of preceding year in Form III.

### 6. *Change in name and addresses etc.*

- (1) When a change occurs in the name or ownership of a mine or in the address of the owner, the owner, agent or manager shall within seven days from the date of such change give to the Chief Inspector and the Regional Inspector notice in Form I.
- (2) When any appointment is made of an agent, manager, installation manager, safety officer, fire officer or when the employment of any such person is terminated or any such person leaves the said employment or when any change occurs in the address of any agent or manager, the owner, agent or manager shall within seven days from the date of such appointment, termination or change give to the Chief Inspector and the Regional Inspector, notice in Form I.

### 7. *Notice of accident*

- (1) (a) When there occurs in or about a mine -
  - (i) an accident causing loss of life or serious bodily injury in connection with mining operations;
  - (ii) an explosion or ignition;
  - (iii) a blowout;
  - (iv) an outbreak of fire;
  - (v) a bursting of any pipeline or equipment containing petroleum, steam, compressed air or other substance at a pressure greater than the atmospheric pressure;
  - (va) a major uncontrolled emission of petroleum;
  - (vi) a breakage or fracture of any essential part of draw-works, casing line or failure of emergency brake;
  - (vii) a breakage, fracture or failure of any essential part of any derrick, machinery or apparatus whereby the safety of persons may be endangered;
  - (viii) an influx of noxious gases;
  - (ix) any due to explosives;

the owner, agent or manager shall forthwith inform the Regional Inspector telephone or express telegram or by special messenger and shall also within 24 hours of every such occurrence give notice thereof in Form IV-A to the District Magistrate, the Chief Inspector and the Regional Inspector.

- (b) When an accident causing loss of life or serious bodily injury occurs in or about a mine in connection with the generation, storage, transformation, transmission, supply or use of electrical energy, the owner, agent or manager shall also forthwith inform the Electrical Inspector of Mines by telephone, express telegram or special messenger.
- (2) If death results from any injury already reported as serious under sub-regulation (1) the owner, agent or manager shall within 24 hours of his being informed or the death, give notice thereof to the Chief Inspector, Regional Inspector and District Magistrate.
- (3) In respect of every person killed or injured as above, the owner, agent or manager shall send to the Chief Inspector particulars in Form IV-B and IV-C within seven days of such occurrence or within 15 days of the injured returning to duty, as the case may be.

## **8. Notice of disease**

Where any person employed in a mine contracts any disease notified by the Central Government in the Official Gazette, the owner, agent or manager shall within three days of his being informed of the disease give notice thereof in Form V to the District Magistrate, the Chief Inspector, the Regional Inspector and Inspector of Mines (Medical).

## **9. Plans**

- (1) The owner, agent or manager of every mine shall keep the following plans accurate and upto date :
  - (a) A key plan showing the area duly demarcated in which operations for winning of petroleum and ancillary operations are carried on.
  - (b) A surface plan showing the location of all wells including abandoned wells, group gathering stations, railways, power transmission lines, public roads, buildings or other permanent structures not belonging to the owner, rivers and water courses within the mining areas:-

Provided further that the Chief Inspector may, by an order in writing, call for a surface plan extending to from the mine boundary.

- (2) Every plan maintained in accordance with the provisions of these regulations shall,
  - (a) show the name of the mine and of the owner and the purpose for which the plan is prepared ;
  - (b) show the true north or magnetic meridian and the date of the later ;
  - (c) unless otherwise provided, be on a scale having a representative factor of –
    - (i) 50,000 : 1 , in case of key plans;
    - (ii) 20,000 : 1 , in case of plans showing location of oil, gas wells and other installations etc. mentioned in sub regulation 1(b).
  - (d) be properly inked in on durable paper or a polyester tracing film and be kept in good condition.



(3) The Regional Inspector may, by an order in writing,---

(a) require such additional details to be shown on the plans required to be maintained under these regulations or the preparation and maintenance of such other plans and sections on such scale and showing such details within such time as he may specify in the order;

(b) require the owner, agent or manager to submit to him within such time such plans and sections, or tracings thereof, as he may specify in the order.

(4) All plans and sections required to be maintained under these regulations or any orders made thereunder as well as all field books and other notes used in preparation of such plans and sections shall be kept available for inspection in the office at the mine and a list thereof shall be also kept maintained in a bound paged book kept for the purpose.

#### **9A. Preparation of plans ,etc by surveyor---**

(1) Every plan or section required to be maintained under these regulations or any orders made thereunder shall be prepared by or under the personal supervision of a surveyor and shall carry thereon a certificate by him to the effect that the plan or section or part thereof is correct and shall be signed and dated by the surveyor and countersigned and dated by the manager on every occasion that the plan or section is brought up-to-date .

(2) Every tracing of a plan or section or of any part thereof shall bear a reference to the original plan or section from which it was copied and shall be certified thereon by the surveyor to be a true copy of the original plan or section.

## **CHAPTER-III : INSPECTORS, MANAGEMENT AND DUTIES**

### **10. Qualifications of Inspectors**

- (1) After the coming into force of these regulations, no new person shall be appointed as Chief Inspector unless he holds a degree or diploma in mining engineering of an educational institution approved by the Central Government;
- (2) After the coming into force of these regulations, no person shall be appointed as Inspector unless he holds a degree or diploma in mining or petroleum engineering of an educational institution approved by the Central Government:

Provided that -

- (i) in relation to electrical machinery installed in mines, a person holding a degree or diploma in electrical engineering of an educational institution approved by the Central Government may be so appointed;
- (ii) in relation to other machinery or mechanical appliances installed in mines, a person holding a degree or diploma in mechanical engineering of an educational institution approved by the Central Government may be so appointed; and
- (iii) in relation to the provisions of the Act and of the regulations and of orders made thereunder which relate to matters concerning the health and welfare of persons, a persons holding a degree or diploma in medicine, surgery and/or in social science or labour welfare, as the case may be, of an educational institution approved by the Central Government may be so appointed.

### **11. Definition**

For the purpose of this Chapter, all borings, boreholes, petroleum wells, accessory petroleum conditioning plants, including the pipe conveying petroleum within an area duly demarcated by the owner or agent shall be deemed to constitute one mine:

Provided that where special conditions exist, the Chief Inspector may, by an order in writing and subject to such conditions as he may specify therein, permit or require the division of any one such area into two or more separate mines.

### **12. Appointment of Managers**

- (1) No mine shall be opened, worked or re-opened unless there is a manager of the mine, being a person duly appointed. If any question arises whether any person so appointed is competent to perform the duties of manager, it shall be referred to the Chief Inspector whose decision thereon shall be final.
- (2) No person shall act or be appointed to act as manager of more than one mine except with previous permission in writing of the Chief Inspector and subject to such conditions as he may specify therein. The Chief Inspector may at any time by an order in writing vary or revoke any such permission if the circumstances under which the permission was granted have altered or the Chief Inspector finds that the manger has not been able to exercise effective supervision in the mines under his charge.

### **13. Appointment of Installation Managers**

- (1) At every mine one or more installation managers shall be appointed to hold charge of the different installations of the mine.

- (2) An installation manager may hold charge of more than one installation :

#### **14. Appointment of Safety officer**

The owner or agent of every mine shall appoint a safety officer to assist the manager in promotion of safety and health at work, who, to the best of the knowledge and belief of the owner or agent, has skills and competence suitable for the appointment. In case of any doubt the matter may be referred to the Chief Inspector whose decision thereon shall be final.

#### **16. Appointment of Officials and Competent Persons**

- (1) The owner, agent or manager of every mine shall appoint such number of competent persons including officials and technicians, as is sufficient to secure, during each of the working shift -
- (a) adequate inspection of the installation and the equipment thereof ;
  - (b) a thorough supervision of all operations at the installation;
  - (c) the installation, running and maintenance, in safe working order, of all machinery in the mine; and
  - (d) the enforcement of the requirements of the Act and these regulations.
- (2) It shall be the responsibility of the manager, and installation manager to see that the persons appointed under sub-regulation (1) are competent to perform duties assigned to them.
- (3) Copies of all appointments made under sub-regulation (1) and duties assigned to the competent persons shall be entered in a bound paged book kept for the purpose. A list of such competent persons shall also be maintained.

#### **17. General Management**

- (1) The owner, agent and manager shall provide for the safety, and proper discipline of persons employed in the mine.
- (2) Except in a case of emergency, no person who is not an official or a competent person shall give otherwise than through the manager, instructions to a person employed in a mine who is responsible to the manager.

#### **18. Duties of Persons Employed in Mines**

- (1) every person shall strictly adhere to the provisions of the Act and of the regulations and orders made thereunder and to any order or direction issued by the manger or an official with a view to the safety or convenience of persons, not being inconsistent with the Act and these regulations nor shall he neglect or refuse to obey such orders or directions.
- (2) Before beginning work every person shall examine his place of work and the equipment that he is to use and shall forthwith report to his superior any dangerous defect that he may discover.
- (3) Every persons shall make use of all safeguards, safety devices and other appliances provided for his protection or the protection of others.
- (4) Except in an emergency, no person unless duly authorised shall interfere with, remove, alter or displace any safety device or other appliance provided for his

protection or the protection of others or interfere with any method or process adopted with a view to avoiding accidents and injuries to health.

- (5) No person shall, while on duty, throw any stone or other missile with intent to cause injury or fight or behave in a violent manner.
- (6) No person shall sleep or rest in a dangerous place such as scaffolds or cranes or in the vicinity of dangerous or toxic substances, machinery, boilers, vehicles and heavy equipment's.
- (7) Every person shall wear protective equipment and clothing suited to his duties and to the weather conditions.
- (8) Every person receiving any injury in the course of his duty shall, as soon as possible, report the same to an official or to the competent person in charge of a first-aid station, who shall arrange for the necessary first-aid to the injured person.

## 19. Duties of Manager

- (1) The Manager shall be responsible for the safe and proper working of the mine by exercising supervision and control.
- (2) The manger shall see that sufficient supply of proper materials and appliances for the purpose of carrying out the provisions of the Act, the regulations and orders made thereunder and for ensuring the safety of the mine and persons employed therein, is always provided at the mine; and if he is not the owner or agent of the mine, he shall report in writing to the owner or agent when anything which he is not competent to order, is required for the aforesaid purpose. A copy of every such report shall be recorded in a bound paged book kept for the purpose.
- (3) The manger shall assign to every competent person and official his specific duties and on his appointment make over to him a copy of the regulations, rules and bye-laws and any orders made thereunder which affect him and he shall take all possible steps to ensure that every such person understands, carries out and enforces the provisions contained therein in a proper manner.
- (4) The manger shall examine all reports, registers and other records required to be made or kept in pursuance of the Act, the regulations and orders made thereunder and shall countersign the same and date his signature. He may, however by an order in writing delegate this duty to **Dy. Manager** or Installation Manger.
- (5) The manger shall pay attention to and cause to be carefully investigated any specific representation or complaint that may be made to him in writing by a work person of the mine as to any matter affecting the **mine environment** or safety or health of persons in or about the mine.
- (6) When an accident resulting in any serious bodily injury to any person or in loss of life occurs in a mine, the manger shall inspect the site of accident immediately and shall also either himself or through safety officer have an enquiry made into the causes of and circumstances leading to the accident. The results of every such enquiry and a plan and section of the site of the accident showing the details shall be submitted to the Regional Inspector within seven days of the date of occurrence.

- (7) The manager shall perform such other duties as have been specified in this behalf under the Act, the regulations and orders made thereunder.
- (8) The manager may suspend or take such disciplinary action as he thinks fit against the work persons for contravention of any provision of the Act, the regulations and orders made thereunder.
- (9) The manager shall maintain in a bound paged book kept for the purpose, a diary, and shall record therein the findings of each of his inspections and also the action taken by him to rectify the defects mentioned, if any.

## **20. Duties of Installation Manager**

- (1) The installation manager shall have charge and control of such installations and shall carry out such duties, as may be assigned to him by the manager.
- (2) He shall see that a notice of his appointment is posted at a place in the installation in such a position that it can be easily and conveniently read.
- (3) He shall see that in the installation assigned to him, all work is carried out in accordance with the provisions of the Act and the regulations and orders made thereunder.
- (4) (a) He shall visit and examine the installations under his charge on every working day to see that safety in every respect is ensured.  
  
(b) He shall maintain a detailed record, the results of each of his inspections and also the action taken by him to rectify the defects noticed, if any.
- (5) He shall see, when any drilling rig, work-over rig and associated equipment or production equipment or pipeline is shifted or newly installed, that it is given a trial-run before it is put into use and shall be present during every such trial run.
- (6) He shall see that all persons employed at the installation are thoroughly instructed and familiar with the provisions of the standing orders made under these regulations, prevention of blowout and fire.
- (7) He shall see that the provisions of the Act and the regulations or orders made thereunder relating to the installation, maintenance, operation or examination of machinery and equipment are properly carried out by himself or by competent persons or work persons, as the case may be, appointed for the purpose.
- (8) (a) When, during the construction of an installation or any operation thereat, there is an emergency or apprehended emergency endangering the life or safety of any person or the stability and safety of the installation, he shall himself take or cause to be taken such measures as are necessary or expedient to avoid the emergency.  
  
(b) No requirement in these regulations shall be taken as prohibiting or restricting the taking of such measures.

## **21. Duties of Safety Officer**

- (1) The Safety Officer shall inspect, as often as may be necessary, the installations of the mine with a view to identify the dangers which may cause bodily injury or impair health of any person.

- (2) He shall advise the manager on measures necessary to prevent dangerous situations.
- (3) He shall enquire into the circumstances and causes of all accidents whether involving persons or not and advise the manager on measures necessary to prevent recurrence of such accidents.
- (4) He shall collect, compile and analyse information in respect of accidents and dangerous occurrences with a view to promote safe practices and improvement of working environment.
- (5) He shall organise regular safety education programmes and safety campaigns to promote safety awareness amongst persons employed in the mine.
- (6) He shall see that all new workers and workers transferred to new jobs receive adequate safety training, instructions and guidance.
- (7) He shall maintain a detailed record of work performed by him every day.
- (8) No duties other than those specified above shall be assigned to the safety officer without the written approval of the Regional Inspector.

## **22. Duties of Fire Officer**

- (1) The Fire Officer shall ensure the observance of the provisions of the Act, regulations and orders made thereunder concerning fire detection, fire-fighting systems and shall advise the manager on measures necessary to ensure adequate protection against fire.
- (2) He shall ensure proper layout, installation and maintenance of fire-fighting equipment.
- (3) He shall see that contingency plan for likely fire situations are prepared.
- (4) (a) He shall organise regular training of persons incharge of fire-fighting duties with particular reference to contingency plan for fire, correct assessment and handling of fire problem.  
  
(b) He shall see that persons incharge of fire fighting duties undertake simulated fire drills atleast once in every month to study promptness of response and effective tactics.
- (5) He shall examine at least once in every quarter all devices and equipment of fire detection and fire-fighting systems in the mine and report any defects in the same to the manger.
- (6) He shall exercise a general supervision and co-ordination during control and extinguishment of any fire in the mine.
- (7) He shall into the causes and circumstances of all fires in the mine.
- (8) He shall maintain detailed record of work performed by him every day.
- (9) No duties other than those specified above shall be assigned to the fire officer without the written approval of the Regional Inspector.

## **23. Duties of Competent Persons**

- (1) Every competent person shall be subject to orders of superior official.
- (2) He shall not -
  - (a) depute another person to perform his work without the sanction of his superior officials,
  - (b) absent himself without having previously obtained permission from such official for the period of his absence or without having been relieved by a duly competent person, and
  - (c) without permission from such official, perform during his shift, any duties other than those for which he has been appointed.
- (3) He shall on the appearance at his place of work any hazardous condition, take prompt corrective measures to eliminate the hazard.

## CHAPTER-IV : DRILLING AND WORKOVER

### 24. Derricks

- (1) Every part of a derrick shall be of sound construction and adequate strength and shall be maintained in safety working order.
- (2) The derrick shall be adequately secured to prevent it from overturning.
- (3) The working edge of monkey board platforms shall be so placed that there is adequate clearance for safe passage of traveling block.

### 25. Derrick platforms and floors

- (1) On every derrick or portable mast, a platform at least 0.60 metres wide shall be provided on at least one side of the crown block. The platform shall be equipped on its outer edges with a two-rail railing at least one meter high and toe-board 0.15 meter high.
- (2) On every derrick, platforms shall be provided for persons to stand on while they handle pipe or other equipment racked in or on the derrick. The platforms shall cover the space from the working edge of the platform to the legs and girts of the derrick and shall be firmly secured.
- (3) The working edge of monkey board platforms shall be so placed that there is adequate clearance for safe passage of traveling block.
- (4) Platforms, floors and walkways shall be kept free of dangerous projections or obstructions and shall be so maintained that adequate protection against slipping is provided.

### 26. Ladders

- (1) Every derrick shall be equipped with a ladder arrangement ensuring safe access to all elevated walking and working platforms.
- (2) Access from ladder to working platforms shall be properly secured with railings and toe-boards.
- (3) The top end of each ladder section shall extend not less than one metres above the platform.
- (4) (a) Landing platforms or cages shall be provided on ladders of more than 6 metres to a maximum unbroken length of 9 metres.  
  
(b) all landing platforms shall be equipped with railings and toe-boards so arranged as to give safe access to the ladder :  
Provided that the Chief Inspector may permit in any mine or part thereof any alternative precautionary measures to be taken in lieu of landing platforms.

### 27. Safety belts and life lines

Every person who works above the first girt of a derrick shall be provided with approved type of safety belts and lifeline and shall use the same unless he is otherwise protected against the danger of falling from height.



## **28 Emergency escape device**

- (1) On every derrick there shall be installed and maintained an escape line with a slide of adequate strength in such a manner that persons can come down safely from the monkey board to ground level in an emergency.
- (2) Escape line shall be securely fastened to the girt immediately above the monkey board and it shall be securely anchored to ground at a distance not less than 45 metres from the derrick base or equal to height of the derrick from ground level, whichever is more.
- (3) A competent person shall inspect every part of the emergency escape device once at least every day. A record of every such inspection shall be maintained in a bound-paged book kept for the purpose and signed by the person who made the inspection.

## **29. Weight indicator**

On every rig a weight indicator shall be provided and used to register a close indication of the load suspended from the casing line.

## **30. Escape exits**

The rig floor area, and each draw works engine floor area shall have not less than two escape exits places on opposite sides to give unobstructed escape.

## **31. Guardrails, handrails and covers**

- (1) Floor openings and floor holes shall be guarded by a standard railing and toe-board and/or cover.
- (2) Every open-sided floor or platform 1.8 metres or more above adjacent floor or ground level where any person is allowed to work or pass be guarded by a standard railing.
- (3) On the inside of all mud tank runways standard railing shall be provided unless other means are available to prevent a person from falling into the mud tanks.
- (4) Open sided floors, walkways, platforms or runways above or adjacent to dangerous equipment and similar hazards shall be guarded with a standard railing and toe-board.

## **32. Draw-works**

- (1) The draw-works shall be fitted with a suitable device with its control near the driller's stand to stop the draw-works in case of an emergency.
- (2) (a) No draw-works shall be operated unless all guards are in position and maintained.  
(b) If lubrication fittings are not accessible with guards in place, machinery shall be stopped for oiling and greasing.
- (3) The brakes, linkage and brake flanges of draw works shall be examined by a competent person once at least in every 24 hours. If any defect is discovered during such examination, the draw-works shall not be used until such defect is remedied.
- (4) The draw-works shall be provided with an automatic device which shall effectively prevent the traveling block from coming closer than two metres of the crown block on the one end and crashing on the rotary table at the other end:

Provided that where special conditions exist which make the compliance with provisions of this sub-regulation not reasonably practicable, the Chief Inspector may

by an order in writing and subject to such conditions as he may specify therein, exempt or relax from these provisions.

### **33. Cathead and catline**

- (1) Catheads operated manually shall be equipped with a guide divider to ensure separation of the first wrap of line or rope.
- (2) The key seat and projecting key on a cathead shall be covered with a smooth thimble or plate.
- (3) (a) When a cathead is in use, a competent person shall be at the controls and in the event of any emergency, he shall immediately stop the rotation of the cathead.  
(b) The operator of the cathead shall keep his operating area clear and shall keep the portion of the catline not being used coiled or spooled.

### **34. Tongs**

- (1) Uncontrolled rotation of pipes shall be effectively prevented while making or breaking pipe connections and a back-up tong shall be used for this purpose whenever required.
- (2) Tong counter balance weights and lines shall be provided with guards to prevent accidental contact.
- (3) The ends of tong safety lines shall be secured with not less than three wire-line clamps.

### **35. Safety chains or wirelines**

Tongs, ends of rotary hose and suspension sheaves shall be fitted with safety chains or wirelines.

### **36. Casing lines**

- (1) All casing lines shall be visually examined by a competent person once at least in seven days and the condition of the wire as to wear, corrosion, brittleness and fracture shall be noted. A report of every such examination shall be recorded in a bound-paged book kept for the purpose and shall be signed and dated by the person who made the examination.
- (2) If on any examination made as aforesaid there is discovered any weakness or defect by which the safety of persons may be endangered, such weakness or defect shall be promptly reported in writing to the installation manager or manager and until such weakness or defect is remedied the casing line shall not be used.
- (3) The wearing points of every casing line shall be moved by cutting off at least thirty metres of the casing line after every 3000 tonne-kelometres or at shorter intervals, where necessary so as to prevent excessive wear of the casing line. The operation shall be carried out under the supervision of the driller or other competent person who shall record the date and other particulars thereof in a bound paged book kept for the purpose and shall sign and date the same.

### **37. Rigging equipment for material handling**

- (1) Rigging equipment including cranes for material handling shall be checked prior to and during its use to ensure that it is safe.
- (2) Rigging equipment shall not be loaded in excess of its recommended safe working load.
- (3) While operating cranes in the vicinity of overhead electric transmission line adequate precaution shall be taken against accidental contact with the electric

transmission line unless the same is kept de-energised during movement of the same.

### **38. Storage of materials**

- (1) All materials stored in tiers shall be stacked, racked or otherwise secured to prevent sliding, falling or collapse.
- (2) Passage ways shall be kept clear to provide for the free and safe movement of material handling equipment or persons.

### **39. Construction and loading of pipe-racks**

- (1) Construction of pipe racks shall be designed to support any load placed thereon.
- (2) Adequate provision shall be made to prevent pipe-tubular material or other round material from rolling off pipe-racks.
- (3) No person shall go or be allowed to go between pipe-rack and a load of pipe during loading, un-loading and transferring operations of pipes unless effective protection device or system is provided to protect such person from being hit by any load of pipe in motion.

### **40. Rigging-up and rig dismantling**

- (1) The raising and installation of heavy loads shall be done during daylight hours unless adequate general lighting arrangements are provided at the place of work.
- (2) All loose parts and tools shall be securely fastened.
- (3) Guylines, cat lines, sub lines and such other lines shall not be installed within six metres of any electric overhead transmission lines.
- (4) The exhausts of internal combustion engines shall be provided with water quenched or other effective spark arrestors.
- (5) High pressure circulating fluid lines & steam line shall be securely bolted down.
- (6) While dismantling the rig the wellhead shall be protected against damage from sliding or falling object.
- (7) Components from aloft including nuts, bolts and cleats shall be lowered safely to the ground either singly, bundled or in containers.

### **41. Mud tanks and mud pumps**

- (1) Mud tanks shall be so designed and installed as to provide positive suction to mud pumps.  
Provided that the Regional Inspector may, by an order in writing exempt any part of the mine from observance of this precaution if he considers such observance not necessary.
- (2) All mud pumps connected to a drilling rig shall be equipped with a safety pressure relief valve and an operating gauge in the system. The valve shall be set to discharge at a pressure not in excess of the established working pressure of the pump, pipes and fittings.
- (3) The discharge from a safety pressure relief valve shall be piped to a place where it will not endanger persons.
- (4) There shall be no valve between a pump and its safety pressure relief valve.

### **42. Blowout preventer assembly**

- (1) After the surface casing is set in a well, no drilling shall be carried out unless blowout preventer assembly is securely installed and maintained.
- (2) Blowout preventer assembly shall consist of , -

- (a) one bag type preventer for closing regardless whether drilling equipment is in the hole or not;
  - (b) one blind ram preventer for closing against an open hole;
  - (c) one pipe ram preventer, for closing against drill pipe in use in the hole;
- Provided that in respect of drilling rigs which were in use before coming into force of these regulations and which are so designed as to permit installation of not more than two blowout preventers, the provisions of this sub-regulation shall come into force from such date as the Chief Inspector may notify by a general or special order.
- (3) (a) In blowout preventer assembly, there shall be provided two seamless steel pipes at least 50 millimeter in diameter connected below each set of blowout preventer, one for bleeding off pressure and the other for killing the well. Such pipes shall be straight and lead directly to the opposite sides of the drilling platform ;  
Provided that the Chief Inspector may, by an order in writing and subject to such conditions as he may specify therein, permit the use of flexible armoured high pressure steel hose suitable for use as choke and kill lines.
  - (b) Each pipeline shall consist of components having a working pressure equal to that of the blowout preventers.
  - (c) The bleed-off line shall be securely tied and connected to a suitable manifold which shall permit the flow to be diverted through a full opening line or through either the bleed-off line or kill line, each containing an adjustable choke and connected to a degassing system.
  - (4) Kelly cocks shall be provided between swivel and kelly and also between kelly and drill pipe.

#### **43. Control system for blowout preventers**

- (1) All manual controls for mechanically operated blowout preventers shall be located at least 0.60 metres outside the derrick substructure. Instructions for operating the controls shall be posted prominently near the control wheel.
- (2) All controls of power operated blowout preventers shall be located within easy reach of the driller on the derrick floor :  
Provided that where special conditions exist which make the compliance with this sub-regulation unnecessary or not reasonably practicable the Chief Inspector may by an order in writing and subject to such conditions as he may specify therein, grant relaxation from the provision of the sub-regulation.
- (3) A remote control panel for the blowout preventers shall also be installed at ground floor level at a safe distance from the derrick floor
- (4) All controls for blowout preventers shall be clearly identified with suitable markers.

#### **44. Testing of blowout preventer assembly**

- (1) Blowout preventer assembly including its control valves, connected pipes and spacers etc. shall be pressure tested to the rated pressure of the assembly or the rated pressure of the casing pipe on which it is mounted, whichever is less, soon after its initial installation, reinstallation, following repair, and before drilling out cement plug from string of casing.

Notwithstanding anything stated above, the bag type blowout preventer shall not be subjected to more than 70 percent of its rated pressure.

- (2) The blowout preventer assembly including pipes and control valves, shall be function tested, -
  - (a) Once in each trip in case of blind ram type preventers;
  - (b) atleast once in case of pipe ram type preventers;
  - (c) in case of type preventer atleast once every week on the drill pipe.

- (3) (a) Full particulars of all tests mentioned above shall be recorded in the daily report and in the case of pressure test, the pressure applied and duration of test shall also be recorded by the persons making the test.
- (b) If during any test, a blowout preventer assembly or any part thereof is found to be defective, such defects shall be rectified before resumption of normal operation of drilling of workover.

#### **45. Precautions against blowout**

- (1) The following control equipment for the drilling mud system shall be installed and kept in use during drilling operations :
  - (a) A pit level indicator registering increase or reduction in the drilling mud volume and shall include a visual and audio warning device near the driller's stand.
  - (b) A device to accurately measure the volume of mud required to keep the well filled at all times;
  - (c) A gas detector or explosimeter at the primary shale shaker and connected to audible or visual alarm near the driller's stand;
  - (d) A device to ensure filling of well with mud when the string is being pulled out;
  - (e) A control device near the driller's stand to stop the mud pump when the well kicks, Provided that where special conditions exist which make the compliance with the provision of this sub regulation not reasonably practicable, the Chief Inspector may, by a general or special order in writing and subject to such conditions as he may specify in such order, grant relaxation from the aforesaid provision.
- (2) If the control equipment mentioned in sub-regulation (1) indicate that formation fluids are entering the well, immediate steps shall be taken to control the well.
- (3) (a) The manager of every mine in which blowout preventor assembly is installed, shall submit to the Regional Inspector within 60 days of the coming into force of these regulations or in the case of a new installation within 30 days of the installation, standing orders specifying the action to be taken when a well kicks and the duties of each person employed on the rig and such order persons as may be necessary for blowout drills and actual emergencies.
  - (b) The Regional Inspector may, by an order in writing approve of such standing order either in the form submitted to him or with such additions and alterations as he may think fit; the standing orders so approved shall be enforced at the mine.
  - (c) A copy of the standing orders shall be posted prominently near the rig.
- (4) Each persons employed on a rig shall have an adequate understanding of the warning signs of a kick, the standing orders mentioned in sub-regulation (3), the blowout preventer assembly and be able to operate the controls for blowout preventers. Blowout prevention drill shall be conducted for this purpose once in seven days.
- (5) Suitable control valves shall be kept available near the well which can be used in case of emergency to control the well.
- (6) When running in or pulling out tubings, a gate valve and tubing hanger shall be pre-assembled and kept readily available at the well.

#### **46. Precautions after a blowout has occurred**

- (1) On the appearance of signs indicating that a well is blowing out persons other than those whose presence is deemed necessary for controlling blowout shall be immediately withdrawn from the well.
- (2) During the whole time that any work of controlling a blowout is in progress, the following precautions shall be taken -
  - (a) Competent person shall be present on the spot throughout;
  - (b) An area not less than 500 metres measured from the outer most point of the installation shall be considered as danger zone.
    - (i) all electrical installations within the danger zone shall be de-energised;

- (ii) approved safety lamps or torches shall only be used within the danger zone;
- (iii) no naked lights or vehicular traffic shall be permitted within the danger zone.
- (c) a competent person shall ascertain the condition of ventilation and presence of gases with an approved instrument;
- (d) there shall be available at or near the place, **adequate number** of self-contained breathing apparatus or any other apparatus of approved type for use in emergency;
- (e) adequate fire-fighting equipment shall be kept readily available for immediate use.

#### **47. Drilling workover and other operations**

- (1) At the beginning of every shift the instruments and controls at the driller's stand, draw-works, mud pumps, casing line, catline and blowout preventer assembly shall be examined by the driller and he shall satisfy himself that these are in good working order.
- (2) The driller shall see that no person remains in a position of danger at or near the rotary table before the rotary table is set in motion.
- (3) Tools or other materials shall not be carried up or down a ladder unless properly secured to the body leaving both hands free for climbing.
- (4) The casing line shall not be in direct contact with any derrick member or foul with any material in the derrick excepting the crown block and any traveling block sheaves, a line spooler, all line stabilizer or weight indicator.
- (5) (a) When cementing, no person shall be allowed on the rig floor near the wellhead or near the cementing **line and** equipment except those actually engaged on the operation.  
(b) All high pressure pipes fitted with flexible points shall be suitably anchored and pressure tested before cementing operations commence.

**47(A)** "major accident" means an occurrence including in particular, a major emission or fire or explosion from uncontrolled developments in the course of drilling and for production, stores handling or transportation of petroleum or machinery or owing to natural events leading to serious effects (both immediate and delayed as well as inside or outside the installation) causing or likely to cause substantial loss of life or property;"

#### **48. Precautions during drill stem test**

- (1) Prior to the commencement of drill stem test :
  - (a) blowout preventer assembly shall be pressure and function tested;
  - (b) fire-fighting equipment shall be kept readily available for immediate use;
  - (c) no person other than those required for the test shall be admitted on the drilling floor;
  - (d) the test line shall be securely anchored at each end and at each 9.0 metres interval. The kelly hose shall not be used as part of the test line;
  - (e) the test line and valves shall be examined by a competent persons and no test shall be taken if any defect is discovered until such defect is rectified.
- (2) Initial opening of drill stem test tools shall be restricted to daylight hours only.
- (3) When petroleum has been recovered during a drill stem test, the drill pipe shall not be pulled out unless the well is properly killed and steps are taken to ensure that there is no possibility of petroleum being present in the drill pipe.
- (4) Gas produced to the atmosphere during a drill stem test shall be burnt through a flare-line/burners



## CHAPTER-V: PRODUCTION

### Reg.49 Well completion by perforation

- (1) (a) Explosives used in well perforation shall be transported in suitable containers.  
(b) No person other than a competent persons authorized for the purpose shall handle, transport and use explosives meant for well-perforation.
- (2) Well-perforation operation shall be carried out under the direct personal supervision of an official authorised for the purpose.
- (3) Before commencement of perforation operation, the official shall see that :
  - (a) the well is adequately filled with mud so as to keep the bottom hole pressure under control;
  - (b) all well head equipment including the blowout preventer assembly is pressure and function tested and the results of the test are recorded in a bound paged book kept for the purpose and are signed and dated by the competent persons performing the test;
  - (c) the perforation gun can be safely lowered down the well;
  - (d) a lubricator and wire-line blowout preventer are provided at the wellhead while perforating through tubing; and
  - (e) all equipment including drilling rig, pipe rack and cable used for perforation are efficiently earthed; electrical bonding is established between equipment and well-head before connecting up explosive charges.
- (4) Well-perforation shall not be carried out during night hours or under conditions of lightning, thunder, high winds and heavy rain.
- (5) Normal work at the well shall not be resumed until firing of the charge has been completed and official has removed the perforation equipment from the site.
- (6) Adequate fire fighting equipment shall be kept readily available at site for the whole period while well perforation operations are in progress.

### 50. Well Testing and Activation

- (b) Before commencement of testing or activation of well, the christmas tree and flowlines including the associated fittings shall be subjected to the maximum pressure that likely to be encountered.
- (c) Well testing shall be done under the direct personal supervision of the installation manager; he shall see that :
  - (a) no operation to activate the well is done during night hours;
  - (b) flowlines are firmly anchored to the ground;
  - (c) the separator safety valve is in good working order and properly adjusted;
  - (d) adequate fire-fighting equipment is readily available for immediate use; and
  - (e) adequate facilities are provided to safely collect the well products in tanks or pits
- (3) During well testing, in the event of any oil or gas show, immediate steps shall be taken to bring the well under control.

### 51. Group Gathering Station

- (1) When it is intended to construct any new group gathering station or carryout material alterations at any group gathering station the owner, agent or manager shall, give notice of not less than ninety days before such construction or alteration commences, of such intention in Form VI of the First Schedule to the Chief Inspector, Regional Inspector and District Magistrate, and every such notice shall be accompanied by two copies of an up to date plan of the proposed site of the group gathering station showing the name and location of the installation, the name and location of any other group gathering station and all pipe lines lying within a radius of 500 metres therefrom, the name of each well connected to the station,



the extent of the land over which right of use has been established and any railway, public road, public works, building or any other surface feature lying within 60 metres of such installation:

Provided that where it is essential to carryout immediate alterations at any group gathering station in the interest of safety of the mine or of the persons employed therein, the provisions of this regulation shall be deemed to have been complied with if the said notice is given to the Regional Inspector as soon as the work for such alteration is commenced:

Provided further that in respect of group gathering station where the quantity of petroleum gases or liquid stored or handled exceeds 300 tonnes and 1,00,000 tonnes respectively, the notice under this sub-regulation shall also be accompanied by a Safety Report in Form VII of the First Schedule and once atleast every three years thereafter, or earlier if any material alternations are proposed, to new technical knowledge or the likely consequences of proposed alterations which might have affected or might affect the particulars in the previous report relating to safety and hazard assessment and a copy thereof submitted to the Chief Inspector, Regional Inspector and District Magistrate:

Provided also that in case of an existing group gathering stations,--

(a) the aforementioned copies of the plan and the details required to be furnished in the notice and wherever applicable, in the Safety Report shall be submitted within six months and five years respectively, of the coming into force of this regulation to the Chief Inspector, Regional Inspector and District Magistrate”.

(2) If the Regional Inspector, by an order in writing so requires, such additions or alterations shall be made to the installations, as he may specify in the order.

(3) When the group gathering station has commissioned, the owner, agent or manager shall forthwith communicate the actual date or commissioning to the Chief Inspector, Regional Inspector and District Magistrate.

#### **51A. A Preparation of Emergency Plan for group gathering station--**

(1) The manager of every mine in which any group gathering station is in operation shall, within ninety days of the coming into force of these regulations and in the case of a new station, ninety days before the anticipated date of commissioning thereof, prepare emergency plan and submit a copy thereof to the Regional Inspector and District Magistrate and also put into effect the emergency plan specifying--

(a) the action to be taken in the event of any major accident including when and how the said action is to be taken;

(b) duties and responsibilities of each key personnel including measures to be adopted to avert or minimise the consequences of the emergency;

(c) alarm and communication system including the system of notifying the concerned authorities;

(d) equipment plan viz., make, type, capacity, location, field of operation, and operating procedure in respect of every equipment; and

(e) plan for training of personnel and for mockdrills.

- (2) The manager shall review and if considered necessary modify the emergency plan periodically, and in particular before any material alterations is carried out, and submit a copy thereof to the Regional Inspector and District Magistrate. in the emergency plan.
- (3) The Regional Inspector may, by an order in writing require, to any time any alteration to be carried out in the emergency plan.

## **52. Precautions during acidizing operations**

- (1) Acidizing operations at a well shall be carried out under the direct personal supervision of an official authorised for the purpose.
- (2) Prior to acidizing operations all pressure lines and associated equipment shall be tested to a pressure one and a half times the expected working pressure.
- (3) A non-return valve shall be installed in the treating line as close to the wellhead as practicable.
- (4) The official shall see that -
  - (a) no person other than those required for acidizing operation remains in the vicinity of the well;
  - (b) every person handling acid is provided with and uses protective outer clothing, goggles, gloves and footwear; and
  - (c) an adequate quantity of lime is readily available and used to neutralize any acid spilled.

## **53. Precautions during fracturing operations**

- (1) Fracturing operations at a well shall be carried out under the direct personal supervision of an official authorised for the purpose.
- (2) Prior to fracturing operations, discharge pipeline upto the last valve on the wellhead shall be tested to a pressure one and half times the expected fracturing pressure.
- (3) A non-return valve shall be installed in each discharge line as close to the wellhead as practicable.
- (4) All discharge and bleed-off lines shall be securely anchored. Bleed off lines shall discharge into open tanks or to a pit.
- (5) During fracturing operation, the official shall see that within 30 metres of well -
  - (a) no person other than those required for fracturing operation remains;
  - (b) no naked light or other source of ignition is permitted;
  - (c) all electrical equipment is de-energized; and
  - (d) adequate fire fighting equipment is available for immediate use.
- (6) Pumping units shall be located cross wind atleast 15 metres from the wellhead, and pumping shall be done during daylight hours.

## **54. Precautions during loading and unloading of petroleum tankers**

- (1) Every tanker while it is being loaded or unloaded and until its valves have been shut and filling pipe and discharge faucets closed, shall be attended by a competent person authorised for the purpose.
- (2) Loading and unloading of tankers carrying petroleum shall be performed during day light hours :
- (3) In the loading and unloading area all pipe-lines, fittings and delivery hoses or metal pipes, metallic loading arms, swivel joints, tanks, chassis of tankers shall be electrically continuous and be efficiently earthed.

- (4) No mechanically propelled tankers shall be loaded or unloaded until its engine has been stopped and battery isolated from electrical circuit. The engine shall not be restarted and the battery shall not be connected to the electrical circuit until all tanks, and valves have been securely closed :
- Provided that where special conditions exist which make compliance with any provisions of this sub-regulation not reasonably practicable, the Chief Inspector may by an order in writing and subject to such conditions as he may specify therein, grant relaxation from the said provisions.
- (5) Adequate Fire-Fighting equipment shall be kept readily available during loading of tankers for immediate use.

## 55. Storage Tank

- (1) (a) Every tank for the storage of petroleum in bulk shall be constructed of iron and steel in accordance with the specification approved by the Chief Inspector through a general or special order in writing;
- (b) The tanks shall be erected on firm foundations or supports of non-combustible material in accordance with sound engineering practice.
- (c) The height of a storage tank shall not exceed one and a half times its diameter or twelve metres whichever is less.
- Explanation : For the purpose of this sub-regulation the height of a tank shall be the height from its bottom to top curb angles.
- (d) An air space of not less than 5 percent of the total capacity of the tank or the space prescribed in the specification referred to sub-regulation (1)(a), whichever is less, shall be kept in each tank.
- (2) (a) Every tank after being installed or reinstalled and before being put in use, shall be pressure tested by a competent person so as to ensure that it is free from any leakage and is suitable for storage of petroleum.
- (b) A report of such test shall be maintained in a bound paged book kept for the purpose and signed and dated by the person making the test.
- (3) (a) Every tank installed above ground having capacity in excess of 1000 cubic metres shall be separately enclosed with a dyke or bund constructed above the ground level with an enclosure volume not less than the capacity of such tank.
- (b) All enclosures mentioned in clause (a) shall be provided with proper discharge system to prevent accumulation of oil or water in the enclosures.
- (4) (a) Every storage tank including its roof and all metal connections shall be electrically connected with the earth in an efficient manner.
- (b) The effectiveness of earthing shall be tested once in twelve months. The results of every such test shall be recorded in a bound-paged book kept for the purpose and shall be signed and dated by the person carrying out the test.
- (5) Every storage tank shall be protected against lightning by suitable lightning arrestors.
- (6) (a) No person shall enter or be permitted to enter a tank for cleaning or maintenance unless the tank has been examined by a competent person and found to be gas-free.
- (b) When it is necessary to enter into a tank which is not gas-free, persons who are required to enter the tank shall be provided with approved type of self contained breathing apparatus or a full facepiece mask with a pressure supply of respirable air.
- (c) During the whole time that any work of cleaning or maintenance inside a tank in progress;
- (i) a competent persons who is qualified to administer artificial respiration and first-aid shall be present on the spot throughout;
- (ii) approved portable hand-lamps shall be exclusively used in such work; and

## 56. Well servicing operations

- (1) Every derrick shall be carefully examined by a competent person before it is used for well servicing operations. The derrick shall be adequately secured to prevent it from overturning.
- (2) (a) The crown block, travelling block, wire-lines, hooks and elevators shall be carefully examined by a competent person before it is used.  
(b) When operations are carried out with a hoist and stationery derrick, the floor block shall be fastened to a substantial anchorage.
- (3) (a) Every person shall keep clear of the wireline between the drum and floor block.  
(b) All persons shall remain at a safe distance from the bailing line during swabbing and scraping operations.
- (4) A master gate valve and tubing hanger shall be pre-assembled and kept readily available at the well for immediate use in case the well kicks during pulling out or running in tubings.
- (5) (a) No well servicing operation shall be carried out at any live well unless proper blowout preventer assembly is securely installed and maintained.  
(b) Before commencement of well servicing operation, the blowout preventer assembly shall pressure and function tested.
- (6) No tubing shall be pulled out of any well unless the well is properly killed.

### **57. Artificial lifting of oil**

- (1) Unless a submersible pump is used for the purpose a properly constructed working platform shall be provided at the well where artificial lift equipment is to be used.
- (2) No repairs, lubrication or pressing shall be done unless the pumping unit is stopped.
- (3) All surface control valves for gas lift, intermittent gas lift or free plunger lift systems shall be clearly marked for ready identification.

### **58. Temporary closure of producing well**

- (1) (a) When it is intended to temporarily close any producing well for a period exceeding 30 days, it shall be filled with mud or water or oil so that the hydrostatic pressure of the fluid column over-balances the formation pressure to prevent leakage of petroleum at the wellhead.  
(b) The control valves of the christmas tree shall be completely closed and control wheels shall be removed.
- (2) (a) The christmas tree shall be examined for leakage once in 30 days by a competent person authorised for the purpose. In case any leakage is detected during such examination the competent person shall take immediate steps to stop it.  
(b) A report of every such examination shall be recorded in a bound paged book kept for the purpose and shall be signed and dated by person making the examination.

### **59. Plugging requirements of abandoned wells**

- (1) When it is intended to abandon a well -
  - (a) all permeable formations shall be isolated with cement;
  - (b) a cement plug of minimum length of 50 metres shall be placed at the bottom of the well;
  - (c) a cement plug of a minimum length of 50 metres shall be placed across the shoes of the surface casing;
  - (d) the cellar or pit around the well shall be filled up and the land shall be restored to the original level; and
  - (e) cased wells may be abandoned by placing a bridge-plug above the tope of perforations capped with a three meter cement plug.
- (2) Every abandoned well shall be clearly identified at site.

## CHAPTER-VI : TRANSPORT BY PIPELINES

### 60. Application

The regulations in this chapter shall apply only to the transport of petroleum by means of pipelines within any mine as defined under regulation 11.

### 61. Approval of the route and design of pipeline

(1) (a) No new pipeline shall be laid nor shall any significant alteration be carried out in any existing pipeline or system of pipelines except with the permission in writing of the Regional Inspector and in accordance with such conditions as he may specify therein;

(b) every application for permission under this sub-regulation shall be submitted in Form VIII of the First Schedule to the Regional Inspector and a copy thereof shall also be sent to the Chief Inspector and the District magistrate; and

(c) the application shall be accompanied by two copies of an upto date plan of the area where the pipeline is proposed to be laid showing the extent of land over which right of use has been established and route of the pipeline clearly indicating the districts and states through which the pipeline would pass:

Provided that in case of an existing pipeline or system of pipelines the aforementioned copies of plan and the particulars required to be furnished in the application shall be submitted to the Chief Inspector, Regional Inspector and District Magistrate within six months of the coming into force of these regulations.

(2) Where it is proposed to lay pipeline within 45 metres of any railway or of any public work in respect of which this regulation is applicable by reason of any general or special order of the Central Government or of any public road or building or of other permanent structure not belonging to the owner of the mine, every application for permission under sub-regulation (1) and the accompanying plan shall also specify the position of pipeline in relation to the railway, public road or work building. A copy of the application shall also be sent in the case of railway to the railway administration concerned; and in the case of any public works as aforesaid, to such authority as the Central Government may by general or special order direct.

(3) When the pipeline has been commissioned the owner, agent or manager shall forthwith communicate the actual date of commissioning to the Chief Inspector, Regional Inspector and District Magistrate.\*

### 62. Design of pipeline and fittings

(1) All pipes, valves, flanges and other fittings shall conform to Indian standards specification or such other specification as the Chief Inspector may recognise.

(2) Scraper launching and/or receiving traps shall be fitted with positive pressure-release indicator fixed to the opening door.

### 63. Laying of pipeline on land

(1) Pipelines shall be laid at least one meter below the ground level except where laying thereof above the ground level is necessary for any special conditions.

(2) The route of underground sections of a pipeline shall be indicated by markers and not less than two such markers shall be visible from any point along the route.

(3) Where the Chief Inspector is of the opinion that it is in the interest of public safety to do so he may by an order in writing, require the owner, agent or manager to

relay, renew or repair such pipeline in accordance with requirements as may be specified in such order.

**64. Emergency procedure for pipelines –**

(1) The manager of every mine in which any pipeline is laid for transport of petroleum shall submit to the Regional Inspector within 60 days of the coming into force of these regulations or in the case of a new installation, within 30 days of the installation, emergency procedures specifying the action to be taken in the event of fire, uncontrolled escape of petroleum from the pipeline, bursting or damage to the pipeline.

(2) The Regional Inspector may, by an order in writing, approve of such emergency procedures, either in the form submitted to him or with such additions and alterations as he may think fit; and the emergency procedures so approved shall be enforced at the mine.

## **CHAPTER - VII : PROTECTION AGAINST GASES AND FIRES**

### **65. Storage and use of flammable material**

- (1) Except for fuel in the tanks of the operation equipment, no flammable material shall be stored within 30 metres of any well.
- (2) Safety cans shall be used for handling and use of flammable liquids.
- (3) Drainage from any fuel storage shall be in a direction away from the well and equipment.
- (4) Any flammable liquid having a flash point of less than 65 celcius shall not be used for cleaning purposes without prior permission in writing of the manager or an installation manager.

### **66. Precaution against noxious and flammable gases**

- (1) No person shall enter or be permitted to enter any cellar, sump, pit or any confined space or Zone '0' hazardous area or the area where a flare has become accidentally extinguished unless a test therein by a competent person indicates that the confined space is gas free.
- (2) Where any test mentioned in sub-regulation (1) shows the concentration of flammable gas to exceed 20 percent of its lowest explosive limit, the supply of electric energy shall be cut off immediately from all cables and apparatus lying within 30 metres of the installation and all sources of ignition shall also be removed from the said area. Normal work shall not be resumed unless the area is made gas-free.
- (3) Particulars of every occurrence referred to in sub-regulation (1) together with a statement as to where and when the flammable gas was found when it was removed and the percentage thereof shall be recorded in a bound paged book kept for the purpose. Every such entry shall be signed and dated by the competent person making the report and counter signed by the installation manager.

### **67. Safety distances**

- (1) No person shall smoke or be permitted to smoke within 30 metres of any well, separator, petroleum storage tank or other source of flammable gases.
- (2) In every mine 'no smoking' areas shall be clearly demarcated.
- (3) No naked light or open flame or spark shall be permitted within 30 metres of any well or any place where petroleum is stored.
- (4) No flame type treater, crude oil treater or other flame type equipment shall be placed or located within 30 metres of any well, separator, petroleum storage tank, except where such flame type equipment is fitted with a flame arrestor.
- (5) Flare shall be sited not less than 90 metres from any part of a production installation or petroleum storage tanks.

### **68. Precautions against fire**

- (1) Dead leaves or dry vegetation shall not be allowed to accumulate or remain and combustible materials other than materials required for use within a period of 24 hours shall not be stored within a distance 15 metres from any oil or gas well or fuel tank storage area.
- (2) Where an internal combustion engine is located within 30 metres of any well, separator, storage tank -
  - (a) its exhaust pipe shall be insulated or sufficiently cooled and the end of the exhaust pipe shall be directed away from the well head; and

- (b) its exhaust manifold shall be shielded to prevent its contact with liquids or gases which might otherwise fall on it.
- (3) Where a diesel engine is located within 30 metres of a well it shall be provided with an air intake shut-off valve with readily accessible remote control arrangement.
- (4) Water bath treator, and heater treator and flare line shall be provided with suitable device for remote ignition.
- (5) All plant, machinery and derricks shall be effectively earthed for dissipation of any static electric charge.

## 69. Precautions during welding

- (1) No person other than a competent welder duly authorised in writing by the manager, installation manager or engineer (mines) shall carry out welding or cutting work requiring use of flame or electric welding apparatus.
- (2) No welding or cutting work shall be undertaken by any welder in any classified hazardous area unless a written permit, called "Hot work permit" in the form specified in the second Schedule is issued to the welder by the manager or installation manager. Copies of hot work permits shall be entered in a bound paged book kept for the purpose.
- (3) No welding or cutting work shall be undertaken in hazardous area unless the area is duly examined and found gas free by a competent person authorised for the purpose. A report of every such examination shall be recorded in a bound paged book kept for the purpose and shall be signed and dated by the person making the examination.
- (4) During the welding and cutting operations, the welder shall see that -
  - (a) all flammable material, oil grease, oil-soaked earth are removed from the area;
  - (b) no matches, lighters or smoking apparatus or any other source capable of igniting flammable gas is present at or around his place of work :  
Provided that nothing in this clause shall be deemed to prohibit the use of any suitable apparatus for the purpose of lighting or re-lighting the welding torch.
  - (c) adequate precautions are taken to prevent fires being started by sparks, slag or hot metal,
  - (d) adequate number of foam or dry-chemical type fire extinguishers are readily available for immediate use.
  - (e) When operations are carried out in confined space, adequate ventilation by mechanical means is constantly provided to prevent accumulation of flammable gas; and
  - (f) when operations are carried out on pipeline which contained flammable fluid, the pipe is disconnected or blinded, the line is isolated, drained or purged with inert gas or water before hot work is undertaken and adequate precautions are taken against build-up of pressure in the line while hot work is in progress.

Provided that nothing in this clause shall be deemed to prohibit the use of hot-tapping machine on a running pipeline with prior written permission of the manager or an installation manager.

- (5) The installation manager and **engineer (installation)** shall ensure that where hot work permits are issued, welding and cutting operations are carried out in accordance with the said permits.

## 70. Fire Fighting Equipment

- (1) (a) At every drilling rig at least two foam and two dry chemical type fire extinguishers shall be conveniently located.



(b) At every workover rig at least one foam and one dry chemical type fire extinguishers shall be provided.

(2) At every group gathering station and petroleum storage tank, a water ring main with adequate storage of water at site, pump feeding hydrants and water monitors shall be provided and maintained.

(3) Fixed-roof storage tanks shall be provided with fixed foam connections.

(4) In addition to the provisions made in sub-regulation (1), (2) and (3), the Regional Inspector may, by an order in writing, require maintenance of mobile fire fighting equipment of such type or specification as he may specify in the order.

(5) (a) A competent person shall once at least in every three months examine every fire-extinguisher and shall discharge and refill it as often as may be necessary to ensure that is in proper working order.

(b) A report of every such examination or refilling shall be kept in a bound paged book kept for the purpose and shall be signed and dated by the person making the examination or refilling.

## **71. Use of fire fighting equipment**

Every person employed at any drilling - rig, work-over rig, well head installation, group gathering station, storage tank or on such work where fire fighting equipment may be required to be used, shall be trained in the use of such equipment; regular fire drills shall be held for this purpose.

## **72. Contingency plan**

- (1) The manager shall frame a contingency plan for fire and submit a copy thereof to the Regional Inspector who may approve it either in the form submitted to him or with such additions or alterations as he may deem fit.
- (2) The contingency plan shall contain;
  - (a) organization plan clearly stating the line of command and the responsibilities of each person involved in case of emergency situations;
  - (b) equipment plan clearly stipulating the equipment's make and type, capacity, location, correct operation and field of operation;
  - (c) action plan clearly stipulating –
    - (i) alarm and communication system,
    - (ii) system of notifying the authorities,
    - (iii) the duties and responsibilities of each key personnel including measures to be adopted to avert or minimise the consequences of the emergency,
    - (iv) when and how the equipment shall be used and when and how the action shall be carried out, and
    - (v) help or information that would be available from associated and external agencies including government agencies,
    - (vi) guidelines for terminating the action; and
  - (d) Plan for training of personnel and for mock-drills.

## **CHAPTER-VIII : MACHINERY, PLANT AND EQUIPMENT**

### **73. Use of certain machinery and equipment**

- (1) The Chief Inspector may, from time to time by notification in the official Gazette, specify appliances, equipment, machinery or other material that are or may be used in a mine which shall be of such type, standard and make as approved by the Chief Inspector by a general order and where any such appliance, equipment, machinery or other material has been specified by the Chief Inspector, no appliance, equipment, machinery or material other than that approved by the Chief Inspector as aforesaid shall be used in any mine.
- (2) Where in the opinion of the Chief Inspector or Regional Inspector any appliance, equipment, machinery or other material not notified under sub-regulation (1) is likely to endanger life or safety of any person employed in any mine the Chief Inspector may by an order in the writing prohibit the use of such appliance, equipment, machinery or material in any mine.

### **74. Classification of Hazardous Area**

The areas in the mine shall be classified into different zones according to the degree of probability of the presence of hazardous atmosphere by the Chief Inspector or an Inspector assisted by such assistants and after such investigations as he may consider necessary.

### **75. Use of electrical equipment in hazardous area**

- (1) No electrical appliance, equipment, or machinery including lighting apparatus shall be used in zone 'O' hazardous area.
- (2) The Chief Inspector may from time to time by notification in the official Gazette specify appliances, equipment and machinery that are or may be used in zone 1 and zone 2 hazardous area which will be of such type, standard and make as approved by the Chief Inspector by a general or special order in writing. Where any such appliances, equipment, or machinery has been specified by the Chief Inspector, any appliances, equipment, or machinery other than that approved by the Chief Inspector as aforesaid shall not be used in such hazardous area.

### **76. General Provisions about construction and maintenance of machinery**

All parts and working gear whether fixed or moveable including the anchoring and apparatus used as or forming part of the equipment of a mine and all foundations in or to which any such appliances are anchored or fixed shall be of good construction, suitable material, adequate strength and free from visible defect and shall be properly maintained.

### **77. Internal combustion Engines**

- (1) Internal combustion engines of over 30 horse power, shall be provided with means, other than manual, for starting them :  
Provided that nothing in this sub-regulation shall be deemed to prohibit manual starting in an emergency.
- (2) Where compressed air is used for starting the engine, a non-return valve shall be provided in the compressed airline as close to the engine as practicable.
- (3) The exhaust system of the engine shall be provided with suitable device to prevent discharge of open flame and sparks from the exhaust.

- (4) Adequate precautions shall be taken to prevent accumulation of flammable vapour near the internal combustion engine.
- (5) The electrical accessories of an internal combustion engine shall comply with the provisions of Indian Electricity Rules, 1956.

## **78. Apparatus under pressure**

- (1) All apparatus used as or forming part of the equipment of a mine which contains or produces air, gas, petroleum or steam at a pressure greater than atmospheric pressure shall be so constructed, installed and maintained as to obviate any risk of fire, bursting, explosion or collapse or the production of noxious gases.
- (2) Every "air receiver or container or separator used for storage of petroleum or gas or steam under pressure"\* shall be fitted with a safety valve and air gauge which shows pressure in excess of the atmospheric pressure.
- (3) \* Before an air receiver or a container containing petroleum or gas or steam is cased in or put in commission, a competent person shall subject it to a hydraulic test at a pressure atleast one and half times of the maximum permissible working pressure ; similar test shall be made after every renewal or repair and in any case at intervals of not more than three years or at such shorter intervals as may be required by the Regional Inspector ; and the results of every such test shall be recorded in a bound paged book kept for the purpose and shall be signed and dated by the competent person carrying out the test and countersigned and dated by the Manager or Dy. Manager or Installagion Manager."
- (4) (a) The discharge line of a gas compressor shall be provided with a pressure relieving safety device ; there shall be no valve or fitting between the compressor and its pressure relieving safety device or between the device and point of discharge, as would render the device ineffective.
  - (b) The pressure relieving safety device shall be set to open at a pressure not exceeding 10 percent above the maximum allowable working pressure.
  - (c) The pressure relieving safety device shall be tested once in every six months and a record of every such test shall be kept in abound paged book kept for the purpose by the person making the test, and shall be signed and dated by him.
- (5) Every in-coming gas line connected to any gas compressor shall be provided with a shut-off valve at safe distance outside the compressor shed.
- (6) No repairs shall be undertaken in respect of any gas compressor and pipelines and fittings connected to it unless the control valves on the inlet and discharge lines are closed and securely locked.

## **79. Precautions regarding moving parts of machinery**

- (1) Every winch shall be provided and used with a stopper, pawl or other reliable holder.
- (2) Every flywheel and every other dangerous exposed part of any machinery used as or forming part of the equipment shall be adequately fenced by suitable guards of substantial construction to prevent danger, and such guards shall be kept in position while the parts of the machinery are in motion or in use but they may be removed for carrying out any examination, adjustment or repairs if adequate precautions are taken.
- (3) No person shall be allowed to repair, adjust, clean or lubricate machinery in motion where there is risk of injury.
- (4) No person shall be allowed to shift or adjust a driving belt, chain or rope while the machinery is in motion unless a proper mechanical appliance is provided for the purpose.
- (5) No person in close proximity to moving machinery shall wear or be permitted to wear loose outer clothing.
- (6) No unauthorised person shall be permitted to enter in any engine room, including gas turbine, compressor, or other machine area, or in any way interfere with the machinery.

## **80. Engine rooms and their exits**

Every engine, motor, compressor, turbine and pump room, and every room in which highly flammable materials are stored shall be kept clean, and be provided with atleast two exits. Every such exit shall be clearly marked, properly maintained and kept free from obstruction.

## **81. Working and examination of machinery**

- (1) No machinery shall be operated otherwise than by or under the constant supervision of a competent person.
- (2) Every person in charge of any machinery, apparatus or appliance shall before commencing work see that it is in proper working order and if he observes any defect therein, he shall immediately report the fact to the installation manager or other competent person.
- (3) Person in charge of an air-receiver shall see that no extra weight is added to the safety valves and that the permissible pressure of air is not exceeded.
- (4) A competent person or persons appointed for the purposed shall, once at least in every seven days, make a thorough inspection of all machinery and plant in use, and shall record the result thereof in a bound paged book kept for the purpose. In respect of electrical machinery and plant, the competent person shall be a person holding qualifications specified in the India Electricity Rules, 1956.

## CHAPTER-IX : GENERAL SAFETY PROVISION

### 82. Housekeeping

- (1) Loose materials which are not required for use shall not be placed or left so as to dangerously obstruct workplaces and passage-ways.
- (2) All projecting nails and ends of railings shall be bent over to prevent injury.
- (3) Scrap, waste and rubbish shall not be allowed to accumulate in work places, access or egress.
- (4) Workplaces and passage-ways that are slippery owing to oil, mud or other causes shall be cleaned up.
- (5) Portable equipment shall be returned after use to its designated storage place.
- (6) Equipment, tools and small objects shall not be left lying about where they could cause an accident either by falling or causing person to trip.

### 83. General lighting

- (1) Adequate general lighting arrangements shall be provided during working hours at the following places -
  - (a) Where the natural lighting is insufficient;
  - (b) derrick floor;
  - (c) driller's stand and control panel;
  - (d) monkey board;
  - (e) every engine and pump house;
  - (f) derrick sub-structure near blowout preventer controls;
  - (g) every place where persons are to work;
  - (h) every means of escape, access or egress;

- (2) The lighting provided in a mine shall as far as possible be so arranged as to prevent glare or eye strain.

### 84. Electric lighting

- (1) Every electrical lighting apparatus shall be of a type approved by the Chief Inspector.
- (2) The lighting system installed in the mine shall comply with the provisions of the Indian Electricity Rules, 1956.
- (3) Every electrical lighting apparatus shall be so fitted as to protect it from accidental damage.

### 85. Standards of lighting

The Chief Inspector may from time to time by notification in the Official Gazette specify the standards of lighting to be provided in any specified area or places in a mine.

### 86. Emergency lighting

Adequate number of self contained portable hand lamps of approved type shall be made and kept available for immediate use in emergency.

### 87. Supply and use of protective footwear

- (1) No person shall go into work or be allowed to go into work in a mine unless he wears a protective footwear of such type as may be approved by the Chief Inspector may specify by a general or special order in writing :
- (2) Protective footwear referred to in sub-regulation(1) shall be supplied free of cost by the owner, agent or manager at interval not exceeding one year or such other interval as the Chief Inspector may specify by a general or special order in writing :
- (3) The owner, agent or manager shall at all times maintain a sufficient stock of protective footwear in order to ensure immediate supply as and when need for the same arises.

## **88. Supply and use of protective helmet**

- (1) No person shall go into or work or be allowed to go into work in a drilling rig or work-over rig or rig building or rig dismantling or at such other place of work where there is a hazard from flying or falling objects unless he wears a helmet of such type as may be approved by the Chief Inspector by a general or special order in writing.
- (2) The helmet referred to in sub-regulation (1) shall be supplied free of cost at interval not exceeding three years by the owner, agent or manager who shall at all times maintain a sufficient stock of helmets in order to ensure immediate supply as and when need for the same arise;  
Provided that when a helmet is damaged during its legitimate use, it shall be immediately replaced free of cost.

## **89. Protective equipment**

Every person engaged in the operations and every other person who may be exposed to the risk of injury, poisoning or disease arising from the operations shall be provided with :

- (a) depending upon the risk, suitable protective equipment including respiratory protective equipment, eye protectors, gloves and aprons;
- (b) suitable protective outer clothing for use in rain and extreme weather conditions.

## **90. Supply and use of protective footwear, helmet and equipment**

- (1) The owner, agent or manager shall provide protective footwear, helmet and equipment free of charge.
- (2) Every person provided with protective footwear, helmet and equipment shall wear the same while at work.

## **91. Protection against noise**

- (1) The owner, agent or manager shall take reasonably practicable means to reduce the noise level and to reduce the exposure of work persons to noise.
- (2) No person shall enter or be allowed to enter without appropriate ear protection, an area in which the sound level is 115dB(A) or more.
- (3) No person shall enter or be allowed to enter an area in which the sound level is 140dB(A) or more.
- (4) The Chief Inspector may, from time to time by notification in the Official Gazette, specify the permissible noise exposure in any area or place in a mine.

## **92. Communication**

- (1) Efficient means of communication shall be provided and maintained in good working order between manned installations and the office of the manager and other places

of work. Wherever possible this shall be by radio telephone and an alternative means of signaling shall also be provided.

- (2) The communication and signaling system installed in the mine shall comply with the provisions of the Indian Electricity Rules, 1956.

### **93. Safety belts and lifelines**

Where any person can not be protected against falls from heights by other means, the owner, agent or manager shall provide an approved safety belt suitable for the hazard exposure which shall be attached by means of a lifeline to a fixed anchor and adjusted to allow a drop not exceeding 1.8 metres in case of fall.

### **94. Precautions against toxic dusts, gases and ionising radiation**

- (1) The emission of toxic dust, gases fumes and ionising radiation shall be prevented or controlled at source as far as reasonably practicable.
- (2) Every person liable to be exposed to toxic dust, gases, fumes and ionising radiation shall be instructed in the safe working methods and techniques, by a competent person appointed for the purpose.
- (3) The Chief Inspector may from time to time by notification in the Official Gazette specify the permissible limits of exposure to toxic dusts, gases fumes and ionising radiations.

### **95. Safety warning signs**

- (1) Storage area and containers of toxic, corrosive, flammable, poisonous and radioactive material shall be properly labeled and appropriately stored according to content.
- (2) Warning signs shall be posted to denote any hazardous situation.
- (3) Warning signs shall be posted in areas where the use of personal protective equipment is required.
- (4) Identification signs shall be conspicuously posted to locate emergency equipment and directions of escape route.
- (5) Pipelines carrying steam or fluid at high pressure shall be conspicuously identified.

### **96. Protection against pollution of environment**

- (1) Any oil discharged from a well during its completion, testing and repairs shall be collected in suitably constructed and adequately fenced disposal pits.
- (2) No disposal pits shall be constructed within 45 metres of any railway, public road or of any public works or of other permanent structure not belonging to the owner.
- (3) Formation water, oil, drilling fluid, waste, chemical substances or refuse from a well, tank or other production installation shall not be permitted, -
  - (a) to create hazard to public health and safety;
  - (b) to run into or contaminate any fresh water structure or body of water or to remain in a place from which it might contaminate any fresh water or body of water; and
  - (c) to run over or damage any land, highway or public road;
- (4) (a) Gas produced at any installation shall not be discharged to the atmosphere unless burnt in accordance with clause (b) or in the manner otherwise approved by the Chief Inspector through a general or special order.
  - (b) Gas to be burned, referred to in clause (a) shall be discharged from a flare line in the following manner.
    - (i) the flare-line shall terminate with the vertical rise of at least 9 metres or such greater height as may be required by the Regional Inspector by an order in writing;

- (ii) the flare-line shall be adequate anchored and provided with suitable means to prevent extinction of the flame;
- (iii) when the gas-flow is intermittent, the flare-line shall be provided with a remote controlled electrical ignition device to ensure continuous ignition of any gases; and

## **97. Fencings**

- (1) The Christmas tree provided at any well on land shall be kept securely fenced with access gates securely locked.
- (2) The protected area surrounding every drilling or work over installation. Production installation, storage tank and flare stack shall be provided with fence of not less than 1.8 metres in height.
- (3) (a) Precautions shall be taken to prevent any unauthorised person from having access to any place which has been duly fenced.  
(b) Every fence shall once atleast every seven days be examined by a competent person. A Report of every such inspection shall be recorded in a bound paged book kept for the purpose and shall be signed and dated by the person who made the examination.
- (4) If any doubt arises as to whether any fence, guard, barrier or gate provided under these regulation is adequate, proper or secure, it shall be referred to the Chief Inspector for decisions, whose decision thereon shall be final.



## CHAPTER-X : MISCELLANEOUS

### 98. General Safety

No person shall negligently or willfully do anything likely to endanger life or limb in the mine or negligently or willfully omit to do anything necessary for the safety of the mine or of the persons employed therein.

### 99. Safety and health education and instructions

In every mines, safety and health education and instruction programmes shall be organised regularly to make the workers safety conscious and instil an awareness of occupational safety and health at every level.

### 100. Place of accident not to be disturbed

- (1) Whenever there occurs in or about a mine an accident causing loss of life or serious bodily injury to any person, the place of accident shall not be disturbed or altered before the arrival or without the consent of the Chief Inspector to whom notice of the accident is required to be given under subsection (1) of section 23 unless such disturbance or alteration is necessary to prevent any further accident, to remove bodies of the deceased or to rescue any person from danger, or unless discontinuance of work at the place of accident would seriously impede the working of the mine :

Provided that where the Chief Inspector of the said Inspector fails to inspect the place of accident within seventy two hours of the time of the accident, work may be resumed at the place of accident.

- (2) Before the place of accident involving a fatal or serious accident is disturbed or altered due to any reason whatsoever, a sketch of the site illustrating the accident and all relevant details shall be prepared (in duplicate) and such sketch shall be duly signed by the manager or assistant manager, safety officer, surveyor and the workmen's inspector or, where there is not workmen's inspector, by a workperson nominated by the workers in this behalf ;

Provided that, if the place is disturbed or altered to prevent further accident or rescue persons from danger before the sketch could be prepared, the same shall be prepared immediately thereafter giving all relevant details as existed before the place was disturbed or altered.

- (3) One of the authenticated sketches shall be delivered or sent to the concerned Inspector of Mines.

### 101. Pointing out of contraventions detected during inspections

- (1) If the Chief Inspector or an Inspector during his inspection of any mine, finds, or comes to know of any contravention of any provisions of the Act or the regulations, rules, bye-laws or orders made thereunder, he shall submit a report thereon and either himself intimate or cause the same to be intimated to the owner, agent or manager of the mine for their rectification.
- (2) The owner, agent or manager shall, within three days of the receipt of intimation under sub-regulation (1), display the contents thereof on the notice board of the mine for period of atleast 15 days, when so required, the owner, agent or manager

shall also supply the copies thereof to the registered or recognized trade unions and to the State Government concerned.

- (3) The owner, agent or manager of the mine shall, within a period not exceeding fifteen days from the date of receipt of the intimation under sub-regulation (1), intimate to the Regional Inspector the action taken to remedy each of the contraventions and the manner in which such contraventions have been removed.
- (4) The agent or manager or in their absence the next senior most official of the mine shall accompany the Chief Inspector or Inspector during his inspection and note down immediately rectifiable contraventions pointed out by him on the spot. The owner, agent or manager of the mine, shall as soon as possible, intimate to the Chief Inspector or the Inspector who made the inspection, details of action taken to remedy these contraventions, whereupon the Chief Inspector, or Inspector, may omit to include these contraventions in the intimation under sub-regulation(1).

## **102. Signing of returns, notices and correspondence**

All returns and notices required under or correspondence made in connection with the provisions of the Act and of those regulations and orders made thereunder shall be signed by the owner, agent or manager of the mine.

Provided that the owner may, by a power of attorney delegate these function to any other specified person:

Provided further that in respect of notice of accident, the manager may delegate this function to any installation manager.

## **103. Chief Inspector to exercise power of the Regional Inspector**

Any power granted under these regulations to the Regional Inspector may be exercised by the Chief Inspector or any other Inspector authorised in writing in that behalf by the Chief Inspector.

## **104. Appeals to the Chief Inspector**

Against an order made by the Regional Inspector under any of these regulations, an appeal shall lie to the Chief Inspector who may confirm, modify or cancel the order. Every such appeal shall be preferred within 15 days of the receipt of the order by appellant.

## **105. Appeals to Committee**

- (1) Against any order of the Chief Inspector an appeal shall lie within 20 days of the receipt of the order by the appellant to the Committee constituted under section 12 of the Act.
- (2) Every order of the Chief Inspector against which an appeal is preferred under sub-regulation (1) shall be complied with pending receipt at the mine of the decision of the Committee :

Provided that the Committee may, on application by the appellant, suspend the operation of the order appealed against pending the disposal of the appeal.

## **106. Repeal and Saving - The Oil Mines Regulations, 1983 are hereby repealed :**

Provided that all acts done or orders issued under any of the said regulations shall so far as they are not inconsistent with these regulations be deemed to have been done or issued under the corresponding provisions or these regulations.

## FIRST SCHEDULE

### FORM-I

(See regulation 3 and 6)  
Notice of opening, closing or change of name

From .....

To

1. The Chief Inspector of Mines,  
Dhanbad.
2. The Regional Inspector of Mines,  
.....Region
- 3.
- 4.

Sir,  
I have to furnish the following particulars in respect of (i) ..... At  
.....(name) mine of.....(owner).

- 
1. In case of CHANGE OF NAME OF MINE  
old name of mine..... Date of change.....

---

  2. \*(1) Situation of the mine;  
Village.....  
Police station.....  
District.....  
State.....  
\*(2) In case of a NEW MINE, particulars of situation of mine:  
Post office.....  
Telegraph office.....  
Railway station.....

- 
- |  | Present | Previous |
|--|---------|----------|
| 3. (1) Name and postal address of (ii)<br>(a) Owner.....<br>(b) Agent, if any<br>(c) Manager |         |          |
| * (2) In case of change, date of change .....  |         |          |

- 
- \*4. (1) Name of manager/installation manager whose appointment is terminated/who is appointed (iii) .....
  - (2) Date of appointment/termination of appointment (iii)
  - \*5. Date on which it is intended to open/reopen abandon/discontinue (iii) the mine \_\_\_\_\_
  - \*6. Actual date of opening/reopening/abandonment/discontinuance (iii) of the mine \_\_\_\_\_

Yours faithfully

Signature.....  
Designation- Owner/Agent/Manager .....

Date.....

#### INSTRUCTIONS

\*Only such columns to be filled in respect of which notice given:  
(i) Mention the matter to which the notice refers.

- (ii) Need not be filled in if the notice relates to item 4.
- (iii) Delete whichever is not applicable.

**FORM – II**  
**(See regulation 4)**

Quarterly return for the quarter ending .....19

1. Name of Mine:  
Postal address of Mine:

2. Situations of Mine:  
Place:  
District:  
State:

3. Name of Owner:  
Postal address of owner

4. Name of agent, if any:  
Postal address of agent

5. Name of manager  
Postal address of manager

Table A to C dully filled in are attached.

Certified that the information given above and in Table A to C is correct to the best of my knowledge.

Signature.....  
Designation- Owner/Agent/Manager .....  
Date.....

**Table A – PRODUCTION \***

Type of Product	Production of oil/gas	Value of oil/gas produced **	Despatch			Closing stock
			To refinery	To market	Domestic consumption	
1	2	3	4A	4B	4C	5

Signature.....  
Designation- Owner/Agent/Manager .....  
Date.....

**INSTRUCTIONS**

- \* The figures should be stated in kilolitres/cubic metres.
- \*\* Value should be calculated upon actual or estimated selling price, at the mine. Any charges incurred in transporting the oil outside the mine property should not be included Royalty figures will not be accepted.

**Table B – Number of Man-days, Etc.**

Give maximum number of persons employed on any day during the quarter .....  
 (Number) on.....(a)

Number of working days during the quarter:

Classification	Aggregate member of man-days worked		Aggregate number of mandays lost on account of absence				
	(b)	(c)	(d)	(e)			
	Men	Women	Sickne ss	Accident	Leave	Other cause	Total
Clerical and supervisory staff (f)							
(i) Supervisors							
(ii) Clerks							
(b) Other workers employed at							
(i) Drilling							
(ii) Production							
(iii) Workshops etc.							
(iv) Fire-services							
(v) Miscellaneous							
Total							

If there is any marked increase or decrease in attendance or absence, please account for it.

Signature.....  
 Designation- Owner/Agent/Manager .....  
 Date.....

**INSTRUCTIONS**

- (a) Give day of the week and the date and month.
- (b) The information should cover all person 'employed' in the mines as defined in section (1)(h) of the Mines Act, 1952 including electrical and subordinate supervisory staff.
- (c) Total number of man-days worked should be obtained by adding the daily attendance or the whole quarter.
- (d) Total number of man-days lost by absence should be obtained by adding the daily absences for the whole quarter.
- (e) Absences should include all cases in which a person is 'scheduled to work' or is expected to turn up for work but does not. All permanent employees are to be treated as 'Scheduled to work'. So far as temporary or casual employees are concerned, a person who attended work during the preceding week should be considered as 'scheduled to work' during the week under consideration unless:
  - (i) he has reported his intention to quite; or
  - (ii) his services have been terminated by the management; or
  - (iii) he does not turn up for work during the whole week.
- A person who has not worked during the preceding week should be considered as 'scheduled to work' only from the day in which he joins work during the week under consideration. Absence due to strike, lockout, lay off or maternity leave should not be included in absence here.
- (f) Supervisory staff does not include senior officers like agent, manager, installation manager, welfare officer etc. but includes only the subordinate supervisory staff.

**TABLE C : HOURS OF WORK AND EARNING**

Information should be furnished in respect of one complete working week during the last month of the quarter(a).

1. Attendance, man-hours worked and cash earnings.

Classification	Average daily attendance during the week (b)	Aggregate number of man-hours worked during the week(c)		Total cash payments for work done during the week (d)					
				Basic wages		Dearness allowance		Other cash payments (e)	
				Total					
	Men Women	Women Men	Women Men	Men Women	Men Women	Men Women	Men Women		
Clerical and supervisory staff (f)									
(i) Supervisors									
(ii) Clerks									
(b) Other workers employed at									
(i) Drilling									
(ii) Production									
(iii) Workshops etc.									
(iv) Fire-services									
(v) Miscellaneous									
2. Total estimated value of concessions in kind (g) given during the week : Rs. –									
3. Normal hours of production shifts :									
						From	To		
1 <sup>st</sup> Shift									
2 <sup>nd</sup> Shift									
3 <sup>rd</sup> Shift									

4. If there is any major change in wages or hours of work as compared to the preceding month please account for the change here.

Signature.....  
 Designation- Owner/Agent/Manager .....  
 Date.....

**INSTRUCTIONS**

- (a) The information should cover all persons “employed” as in Table C. Particulars relating to payments etc., to monthly paid staff should be included on a pro-rata basis.
- (b) Average daily attendance should be obtained by dividing the aggregate number of attendance on all the shifts on all days during the week by the number of working days. Any day on which the mine did not work, for any cause whatsoever, should not be treated as a working day.
- (c) Aggregate number of man-hours worked during the week should be obtained by adding for the whole week, the number of man-hours worked every day. The number of man-hours worked on a day is obtained by summing up the number of hours worked by each person attending work on each of the shifts during the day, including overtime worked, if any.
- (d) Total cash payments should include all remuneration payable (and paid) for work done during the week before making deductions, if any, towards fines, provident fund contributions, etc., Employer's contributions to the provident fund or on account of welfare provisions should not be included. Bonuses not payable for every pay-period should also not be included.
- (e) Including over-time payments.
- (f) Persons employed in the removal of overburden should be included among “Others” and not among “Miners and Loaders”.
- (g) Concessions in kind (such as supply of food-stuff etc. Free or at subsidized prices) should be estimated in terms of the difference between the monetary value of the food stuffs, etc. at cost price and the value realised by sale at confessional price.

**FIRST SCHEDULE  
FORM III  
(See Regulation 5)  
Annual Return for the year ending on the 31<sup>st</sup> December, 19**

1. Name of mine .....
2. Postal address of mine .....
3. Date of opening .....
4. Date of closing (if closed)
5. Situation of mine District.....  
State .....
6. Name of Owner.....  
Postal address of Owner.....
7. Name of Agent (if any) as defined in section 2(c) of the Mines Act, 1952.....  
Postal address of Agent .....
8. Name of Manager.....  
Postal address of Manager.....
9. Other superior supervisory staff employed as at the end of the year. (Please give designations and numbers employed).  
.....  
.....
10. (a) Whether machinery is used ? .....
- (b) Nature of power used, if any (e.g., electricity, steam, compressed air, etc.)
11. Tables A to F duly filled in, are attached.

Certified that the information given above and in Tables A to F below is correct to the best of my knowledge.

Signature :  
Designation : Owner/Agent/Manager  
Date:



**TABLE A - EMPLOYMENT**

Maximum number of persons employed on any one day during the year \_\_\_\_\_  
 (number) on \_\_\_\_\_ (a)

Classification	Total number of man-days worked during the year (b)			Number of days worked during the year	Average daily number of persons employed (c)				Total wages or salary bill for the year(d)
	(2A)	(2B)	(2C)		(3)	(4A)	(4B)	(4C)	
(1)									
Clerical and supervisory staff (f)									
(i) Supervisors									
(ii) Clerks									
(b) Other workers employed at									
(i) Drilling									
(ii) Production									
(iii) Workshops etc.									
(iv) Fire-services									
(v) Miscellaneous									
Total									

Signature :  
 Designation : Owner/Agent/Manager  
 Date:

**INSTRUCTIONS**

- (a) Give day of the week and the date and month.
- (b) Obtained by adding the daily attendance for the whole year.
- (c) Obtained by dividing the number of man-days worked by the number of working days. The total shown in column (4D) should agree with the quotient obtained by dividing the total shown in column (3).
- (d) Includes all cash payments including bonuses. Employer's contributions to provident funds, welfare activities, etc., and concessions in kind should not be included.
- (e) Supervisory staff (e) Supervisory staff does not include senior officers like agent, manager, welfare, officer etc. but includes only the subordinate supervisory staff.

**TABLE B – TYPE AND AGREGATE HORSE-POWER OF ELECTRICAL APPARTATUS**

1. Electricity generated, purchased or received otherwise (in kwh).				
	Generated		Purchased or received	
(a)	For own use			
(b)	For sale			
2. System of supply (whether direct current or alternating current) :-				
(i)	Voltage of supply			
(ii)	Periodicity			
(iii)	Source of supply			
3. Voltage at which current is used for :				
(i)	Lighting			
(ii)	Power			
4. Length of cables (in metres)				
(i)	High pressure			
(ii)	Medium pressure			
5. Total number and aggregate horse-power of motors				
	In use		In reserve	
	Number of units	Total h.p.	Number of units	Total h.p.
(a)	Installed above ground for :			
(i)	Winding			
(ii)	Ventilation			
(iii)	Haulage			
(iv)	Pumping			
(v)	Coal washing, screening or handling plants			
(vi)	Workshops including foundry, smithy etc.			
(vii)	Miscellaneous (specify)			
<b>Total :</b>				

Signature :

Designation : Owner/Agent/Manager

Date:

**TABLE C- TYPE AND AGGREGATE HORSE-POWER OF MACHINERY AND EQUIPMENT  
(OTHER THAN ELECTRICAL APPARATUS)**

	In use		In reserve	
	Number of units	Total h.p.	Number of units	Total h.p.
I. Power generators :				
(a)	Boilers			
(b)	Steam Turbines			
(c)	Diesel Engines			
(d)	Gasoline, Gas or Oil Engines other than Diesel Engines			
(e)	Air Compressors			
<b>Total :</b>				
(II)Machinery				
(i)	Drills			
(ii)	Hoists			
(iii)	Pumps			
(iv)	Traction			
(v)	Portable machines			
(vi)	Workshops			
(vii)	Miscellaneous (Specify)			
<b>Total :</b>				

Signature :

Designation : Owner/Agent/Manager

Date:

**TABLE D – DRILLING AND OTHER RIGS, OIL AND GAS WELLS AND PIPELINES**

1. Drilling, workover and other rigs.

Type of rig	Number deployed
-------------	-----------------

2. Oil, Gas and other wells

Classification	Number
----------------	--------

1. Wells drilled
2. Wells abandoned
3. Oil wells completed
4. Gas wells completed
5. Gas wells on production
6. Gas wells where production discontinued
7. Oil wells on production
8. Oil wells where production discontinued.

3. Pipeline

Classification	Length in metres	Diametre in centimeters
----------------	------------------	-------------------------

1. Flowlines laid from wells to gathering station.
2. Pipelines laid from gathering station to centralstorage tanks.

Signature :  
Designation : Owner/Agent/Manager  
Date:

**TABLE E – Production**

(a)

Type of product oil/ gas	Opening stock on 1 <sup>st</sup> Jan, 19	Production of oil	Value of oil/ gas produced (b)	Despatches			Closing stock on 31 <sup>st</sup> Decembe, 19
				To refinery	To market	For house consumption	
1	2	3	4	5	6	7	8

Signature :  
Designation : Owner/Agent/Manager  
Date:

**INSTRUCTION**

(a) This figures should be stated in kilometers/cubic metres.

(b) 'Value' should be calculated upon actual or estimated selling price at the mines. Any charges incurred in transporting the oil or gas outside the mine property should not be included. Royalty figure will not be accepted.



**FORM IVA**  
**(See regulation 7)**

**Notice to accident/occurrence**

From :  
.....  
.....

To:

1. The Chief Inspector of Mines , Dhanbad – 826001,
2. The Regional Inspector of Mines .....Region .....
3. The District Magistrate
4. The Electrical Inspector of Mines (in case of electrical accident only), Dhanbad-826001.

Sir,

I have to furnish the following particulars of a fatal accident/a serious accident/a dangerous occurrence (i) which occurred at the..... Mine of ..... (owner) :

1. PARTICULARS OF THE MINE :

1. Situation of mine	Name and postal address of owner (Also state telephone and telex numbers)		
Village Post office Police station District State			
Place and location in mine(site) of accident/occurrence:			
Nature of operation under taken at the place of accident/occurrence:			
2. Particulars of the Accident/Occurrence			
(a) Date, shift and hour of accident/occurrence : (c) Classification of accident/occurrence(**) (d) Cause, circumstances and description of accident/occurrence,  (if cause not yet established information to be sent as soon as possible).			
3. Nature & extent of damage			
		<u>Within the establishment</u>	<u>Outside the establishment</u>
(i) Number of persons---- --- exposed to the accident / occurrence --- killed --- seriously injured --- affected by gas (ii) Particulars of material damage (iii) State whether the danger is still present / no longer exists.			
4. Particulars of injuries etc.			
Name of persons (s) (In block capital)	Nature of employment	Age	Sex      Nature of injury and if fatal, cause of death

Killed: 1. 2. 3.
Injured : 1. 2. 3. 4. 5.

5. Measures taken or envisaged:---

(a) to alleviate the effects of the accident occurrence.

(i) short term.

(ii) medium or long term.

(b) to prevent recurrence of similar accident occurrence.

6. Any other relevant information .....

Particulars in respect of every person, killed or injured, in form V are enclosed/ shall be forwarded within a week (i).

Yours faithfully,

Signature .....

Designation : Owner/Agent/Manager

Date .....

## **INSTRUCTIONS**

(\*\*) Under one or other of the following heads, namely :--

1. (a) Explosion and ignition of inflammable gas and/or coal dust :  
(b) Blow out.  
(c) Out break of fire.
2. Hazardous emission of petroleum
3. In drilling/work over rig.
4. Suffocation by gases
5. Explosives
6. Machinery
7. Electricity
8. Miscellaneous

Attach separate sheet, where necessary.”;

(b) after Form-V, following Forms shall be inserted:--

**FORM IV-B**  
**(See Regulation 7)**

**Particulars of Deceased/Injured person**

(To be given separately in respect of every person killed or injured in an accident in the mine)

1. General :
  - (i) Name of mine .....
  - (ii) Owner .....
  - (iii) District .....
  - (iv) State .....
2. Name of Injured Worker .....
3. Time of Accident :
  - (i) Date .....(ii) Time .....(iii) Shift .....
  - (iv) Number of shifts worked per day at the mine .....
  - (v) Time when the worker began work on the day of the accident.....
4. Occupation and Experience of the Worker :
  - (i) State the nature of job he was doing at the time of accident.....
  - (ii) Was it his regular occupation ? .....
  - (a) If yes, state length of experience at the occupation :
    - at your mine .....
    - previous experience , if any .....
  - (b) If no, state how long employed at this job.....
  - (iii) State total experience in mining , coal and non-coal.....
  - (iv) Give details of experience in mining work .....
5. Place of accident :
6. Nature of Injury :
  - (i) State whether fracture, amputation, laceration, bruise, sprain, crushing injury or other (to be specified).....
  - (ii) Part of body injured (to be specified precisely) .....
7. Degree of Disability :
  - (i) if fatal, date and time of expiry .....
  - (ii) If permanent disablement, specify :-
    - (a) the part or parts of the body lost, if any .....
    - (b) the part or parts of body gone out of use .....
    - (c) Whether disablement, was total or partial .....
  - (iii) if temporary disablement, state number of days forced to remain idle .....
8. Responsibility for the Accident :
  - (i) Was any safety provision(s) contravened ? .....
  - (ii) If so, by whom ? .....
  - (iii) What action was taken against the offence ? .....
  - (iv) Could the accident have been avoided ? .....
  - (v) If so, how ?

Signature .....

Designation : Owner/Agent/Manager

Date .....



**FORM IVC**  
**(See Regulation 7)**

**Particulars of injured persons returned to duty**

(To be given separately in respect of every person within 15 days of his return duty)

1. General:

- (i) Name of Mine:
- (ii) Owner:
- (iii) District:
- (iv) State:

2. Date of Accident:

3. Name of injured worker:

4. Return to duty:

- (i) Date when returned to work
- (ii) Whether returned to regular job or some other job (to be specified)

5. Compensation:

State amount of compensation paid or to be paid if any.

Signature:  
Designation: Owner/Agent/Manager  
Date:

**FORM V**  
**(See Regulation 8)**

**Notice of Disease notified under section 25**

From :

.....  
.....

1. The Chief Inspector of Mines, Dhanbd, E.Rly.
2. The Regional Inspector of Mines .....
3. The District Magistrate/District Collector .....
- 4.

Sir,

I have to furnish the following particulars with respect to an occupational disease contracted by a person employed in the .....Mine of ..... (owner):

1. PARTICULARS OF THE MINE ETC:

(i) Situation of mine.....

Village.....

Post office.....

Police station.....

District.....

State.....

(ii) Name and postal address of owner .....

2. PARTICULARS OF PERSON AFFECTED :

(I) Name (in Block Capitals) .....

(II) Permanent address –

Village.....

Post office.....

Police station.....

District.....

State.....

(i) Sex.....

(ii) Date of birth (or age).....

(iii) Occupation ..... How long engaged ? .....

(iv) Date of commencement of employment :

(a) in your mine .....

(b) In mining .....

3. PARTICULARS OF DISEASE ETC.:

(i) Nature of disease from which the person is suffering (state stage) .....

(ii) Date of detection of disease .....

(iii) Name, registration number and address of Medical Practitioner suspecting disease.....

Signature .....

Designation : Owner/Agent/Manager

Date .....

**Form-VI**

Notice of construction of or alteration in a group gathering station.

From

.....  
.....  
.....

To

1. The Chief Inspector of Mines, Dhanbad – 826001.
2. The Regional Inspector of Mines..... Region .....
3. The District Magistrate,  
.....  
.....

Sir,

I hereby give notice of our intention to construct a new group gathering station | carry out alterations in ..... group gathering station and furnish the following particulars in that behalf : ---

- (a) name and address of the mine to which the group gathering station belongs;
- (b) name and address of the owner;
- (c) name and full address of the site of group gathering station;
- (d) date on which it is intended to commence the activity ( or in case of an existing station, date of commissioning thereof );
- (e) information relating to the site, namely:-
  - (i) area of site covered by the group gathering station;
  - (ii) name, location and maximum quantity of petroleum (gas/liquid) likely to be on the site;
  - (iii) constructional details of the installation and description of the process of storage/handling of petroleum ( in case of alteration, details thereof);
- (f) Organisational structure for the proposed activity and set up for ensuring occupational safety and health and for testing, maintenance and patrolling of the installations and safety gadgets;
- (g) information relating to the potential for major accidents (viz| fire, explosion, bursting or failure of equipment, hazardous escape and accumulation of flammable substances etc.), namely :-
  - (i) identification of major accident hazard;
  - (ii) conditions or events which could be significant in causing a major accident;
- (iii) brief description of the measures taken to prevent any major accident and to limit the consequences thereof;
  - (iv) area likely to be affected by any major accident and population distribution therein;
  - (v) maximum number of persons likely to be present at any time on the site and of whom the number likely to be exposed;
- (h) arrangement for training of persons working on site and equipment necessary to ensure their safety;
- (i) providing to persons off the site who are likely to be in an area liable to be affected by any major accident, with the information about the nature of hazard and measures which should be adopted in the event of an emergency arising there from;
- (j) any other relevant information :

Signature .....  
Designation : Owner | Agent | Manager  
Date .....

**Form--VII**  
(See Regulation 51)  
**SAFETY REPORT**

From :

.....  
.....  
.....  
.....

To

1. The Chief Inspector of Mines,  
Dhanbad – 826001.
2. The Regional Inspector of Mines . . . . . Region, . . . . .
3. The District Magistrate  
.....  
.....

Sir,

I have to furnished the following particulars in respect of . . . . . group gathering station :

1. The name and address of ----
  - (b) mine
  - (c) Owner
  - (d) Group gathering station.
2. Description of the installation, namely :--
  - (a) site.
  - (b) Construction design.
  - (c) Identification of hazardous areas and safety distances.
  - (d) Accessibility of plant.
  - (e) Maximum number of persons working on exposed to the hazard.
3. Description of the process namely :--
  - (a) technical purpose of the activity
  - (b) basic principles of the technological process
  - (c) process and safety-related data for the individual process stages
  - (d) process description
  - (e) safety-related types of utilities
4. Description of the hazardous substances namely :--
  - (a) quantities, substance data, safety-related data, toxicological data and threshold values
  - (b) the form in which the hazardous substance may occur on or into which it may be transformed in the event of the abnormal conditions.
  - (c) the degree of purity of the hazardous substance.
5. Information on the preliminary hazard analysis, namely :-
  - (a) types of accident
  - (b) system elements or events that can lead to a major accident
  - (c) hazards
  - (d) safety relevant components
6. Description of safety-relevant units, amongst others:-
  - (a) special design criteria
  - (b) control and alarms
  - (c) special relief systems
  - (d) quick acting valves
  - (e) collecting tanks | dump tank
  - (f) sprinkler system
  - (g) fire-fighting etc.
7. Information on the hazard assessment, namely :--

- (a) identification of hazards
- (b) the causes of major accidents
- (c) assessment of hazards according to their occurrences frequency
- (d) assessment of accident consequences
- (e) safety system
- (f) known accident history.

8. Description of information on organisational system used to carry on the activity safely, namely:--

- (a) maintenance and inspection schedules
- (b) guidelines for the training of personnel
- (c) allocation and delegation of duties for plant safety
- (d) implementation of safety procedures.

9. Information on assessment of the consequences of major accidents, namely :--

- (a) assessment of the possible release of petroleum.
- (b) Possible dispersion of released petroleum.
- (c) Assessment of the effects of the releases (size of the affected area, health effects, property damaged).

10. Information on the mitigation of major accidents, namely:--

- (a) fire brigade.
- (b) Alarm system.
- (c) Emergency plan containing system of organisation used to fight the emergency, the alarm and the communication routes, guidelines for fighting the emergency, information about hazardous substance, examples of possible accident sequences.
- (d) Coordination with the district emergency authority and its off-site emergency plan.
- (e) Notification of the nature and scope of the hazard in the event of an accident.
- (f) Antidotes, if any, in the event of a release of a hazardous substance.

12. Any other information considered relevant.

Signature: . . . . .

Designation: Owner | Agent | Manager

Date : . . . . .

**FORM –VIII**

(See Regulation 61)

Permission for laying a new pipeline or making any significant alteration in existing pipeline.

From

. . . . .  
 . . . . .  
 . . . . .

To

The Regional Inspector of Mines  
 . . . . . Region . . . . .  
 . . . . .  
 . . . . .

Sir,

I hereby submit my application for permission for laying of pipeline | carrying out significant alteration (a) in . . . . . pipeline and furnish the following particulars in that behalf: --

- (a) name and address of the mine to which the pipeline belongs;
- (b) name and address of the owner;
- (c) full postal addresses of the places where the pipeline would originate and terminate as also of the places from where the pipeline activities would be controlled;
- (d) constructional details of proposed pipeline including all associated works and apparatus;
- (e) diameter and length of the pipeline and maximum quantity of petroleum gas or liquid likely to be contained therein at any time and transported on any day;
- (f) normal operating pressure and the pressure for which the pipeline is designed;
- (g) anticipated date and scheme of commissioning of the pipeline activity;
- (h) organisational structure for the proposed activity and set up for ensuring occupational safety and health including testing, maintenance and petrolling test pipeline and safety gadget;
- (i) provision proposed to be made or steps to be taken for:--
  - (i) protection against uncontrolled escape of fluids from the pipeline;
  - (ii) prevention and control of fire or explosion or major emission of petroleum and limiting consequences thereof;
  - (iii) providing to the persons working on the site with the information, training and equipment required to ensure their safety; and
  - (iv) providing to persons off the site who are likely to be in an area liable to be affected by any major accident, with the information about the nature of hazard and measures which should be adopted in the event of an emergency arising therefrom;
- (i) any other relevant information.

Signature . . . . .

Designation : Owner | Agent | Manager.

**SECOND SCHEDULE**  
**(See regulation 69)**  
**Form for hot work permit**

Shri .....and his co-workers named below are permitted to under take welding/cutting work in connection with the job/jobs listed hereinafter at..... of..... (name of installation) .....oil mine, on ..... from ..... to ..... hours on condition that the safety measures mentioned below are strictly complied with.

Job list and work procedure in brief:

**SAFETY MEASURES**

1. Welding/cutting shall commence only after provisions of regulation 69(3) are complied with.
2. During the operation, tests for presence of hazardous atmosphere shall be made with explosimeter at every ..... hours interval. If during any such test it is found that the area is not gas-free, all welding/cutting work shall be stopped forthwith and the operation shall not be resumed till the area is made gas-free.
3. The provisions of regulation 69(4) shall be strictly complied with; a copy of these provisions is attached.
4. Any other provisions.

Name(s) of co-workers.

Signature of welder

Date.....

Signature of Mangers/Installation Manager

Date.....

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