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## LABOUR & EMPLOYMENT DEPARTMENT

NOTIFICATION

The 26th February 2009

**S.R.O.No.105**/2009—The following draft of certain rules further to amend the Orissa Factories Rules, 1950, which the State Government propose to make in exercise of the powers conferred by section 112 of the Factories Act, 1948 (63 of 1948) is hereby published as required by section 115 of the said Act for information of all persons likely to be affected thereby and notice is hereby given that the said draft will be taken into consideration by the State Government on or after the expiry of a period of forty-five days from the date of publication of this notification in the *Orissa Gazette*.

Any objection or suggestion which may be received from any person in respect of the said draft before the expiry of the period so specified will be considered by the State Government.

**DRAFT**

**1.** *(i)* These rules may be called the Orissa Factories (Amendment) Rules, 2009.

*(ii)* They shall come into force on the date of their publication in the *Orissa Gazette.*

**2.** In the Orissa Factories Rules, 1950 (hereinafter referred to as the said rules), in rule 3, for sub-rule-3, in clause (b), after sub-clause (ii) the following sub-clause shall be inserted namely: —

(iii) Anchor point in the plans shall be identified for providing life line support of fall arrestor.

**3.** In the said rules of rule 2-A of in sub-rule (1) in Note-II the figure “62” shall be substituted by the figure “65”.

**4.** In the said rules, in rule 7, for sub-rule (4), the following sub-rule shall be substituted, namely :—

"(4) The occupier shall have the option to apply for renewal of licence for a term of five consecutive calendar years with five times of usual licence fees in vogue. In case of any change in the fees structure during the period, the differential licence fee shall be payable from the said year till unexpired period of licence. In such event, the occupier shall pay the differential licence fee forthwith as applicable or in case of any default in payment of differential fees, 100% penal fee shall be payable for the subsequent 1 calendar year of validity as applicable for normal licensing period; or, otherwise the licence shall be revoked from the subsequent 2nd year (s)."

**5.** In the said rules, "Note" appearing in Form No.1 shall be substituted by the followings, namely :—

"Note – This application shall be accompanied by the following documents—

*(a)* A flow chart of the manufacturing process supplemented by a brief description of the process in its various stages.

*(b)* Plans, in duplicate, drawn to scale, showing—

*(i)* the site of the factory and immediate surroundings including adjacent building and other structures, roads, drains ; and

*(ii)* the plan elevation and necessary cross sections of the various buildings, indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire. The plans shall also clearly indicate the position of the plant and machinery, aisles and passage way; and

*(iii)* anchor point in the plant shall be identified for providing life line for support of fall arrestor and

*(c)* Such other particulars as the Chief Inspector may require."

**6.** In the said rules, in rule 96, after schedule XXVI, the following schedules shall be inserted, namely :—

## SCHEDULE–XXVII

*Procedure for accretion cutting in kilns of sponge iron plants and integrated steel plants*

**1. Application** : — Provision of this Schedule shall apply to all parts of factories where any of the following manufacturing processes or operations are carried on.

(a) Manufacture of sponge iron

(b) Integrated steel

**2. Definitions** : — For the purpose of this Schedule :—

**Sponge Iron**: — Direct reduced iron process based on melting of iron ore with a mix of coal, dolomite or lime stone at a temperatures below the melting point of iron by means of rotary kiln. This results in a spongy mass, known as a bloom, consisting of a mix of incandescent wrought iron and slag.

**Direct Reduced Iron : —**

This means Direct Reduced Iron, is a virgin iron source that is relatively uniform in composition, virtually free from tram elements. It is used increasingly in electric furnace steel making to dilute the contaminants present in the scrap used in these processes. It has an associated energy value in the form of combined carbon which has a tendency to increase furnace efficiency. For captive Direct Reduced Iron production facilities, there is the added advantage that the delivery of hot Direct Reduced Iron to the furnace can reduce energy consumption 16 to 20%.

**Integrated Steel Plant : —**

Integrated Steel Plant means different manufacturing process within one precinct covering conversion of iron ore to molten iron and then to steel in shape of billet and other rolling products using iron ore, coal (or coke), lime stone and other alloying agents.

**Rotary Kiln : —**

The kiln which is lined with refractory castables and bricks supported on rolls stations and stations and rotated by means of variable speed A/C motor and grith gear mechanism.

**Wet Scrubbers : —**

The wet scrubbers is to provide contact between the scrubbing liquid, usually water and the particulate to be collected. The contact can be achieved in a variety of ways as the particles are confronted with so called impaction targets which can be wetted surfaces or individual droplets.

**Stacker : —**

Means a large machine used in bulk material handling applications.

**Induction Furnace : —**

An electrical furnace in which the heat is applied by induction heating of a conductive medium (usually a metal) in a crucible around which water water-cooled magnetic coils are wound usually used for melting of ferrous and non-ferrous metals.

**After Burning Chamber : —**

Exhaust gas from the Direct Reduced Iron kiln having surplus carbon and carbon containing materials is after burnt in a fludised bed reactor called after burning chamber so as to minimize the particulate substances and contents of harmful gases like $SO_2$, NOx, etc. and to utilize surplus energy before stack emission.

**Dust Settling Chamber: —**

Dust Settling Chamber located below the After Burning Chamber is used for collection of ash and other non-combustible substances contained in the exhaust gas of Direct Reduced Iron Kiln which is periodically removed by Wet Scrapper.

**Process Engineer Supervisor : —**

Means a person possessing a Bachelor's Degree in Science, Diploma or Degree in Mechanical, Electrical, Chemical, Metallurgical branch of Engineering having sufficient knowledge in the process of operation and maintenance of the plants and equipments.

**3. Procedure for Accretion Cutting**—

The occupier of each factory where the process of sponge iron and / or integrated steel production is carried on shall abide by the following : —

*(i)* During shut down of the kiln for accretion cutting, it must be ensured that the deposited mass in the After Burn Chamber and Dust Settling Chamber be completely removed after temperature in the kiln falls to ambient temperature.

*(ii)* The stack cap, doors on it and doors on the must be kept open before accretion cutting.

*(iii)* A work permit system has to be in force indicating therein isolation of the equipments and temperature duly signed by the authorized maintenance person and the agency who is deployed in the maintenance job.

*(iv)* All the works are to be carried out under strict supervision of experienced supervisors or process engineers and the persons is to be identified by the management.

*(v)* Any deposits in the After Burn Chamber and Dust Settling Chamber must be cleaned before permitting entry of any person for accretion cutting.

*(vi)* Adequate technical manpower is to be deployed for the process and maintenance work.

*(vii)* All the workers must be provided with the required personal protective equipments like shoes, helmet and the face shield for the purpose of work.

*(viii)* Only 24-volts bulbs are to be used inside the kiln for the purpose.

*(ix)* Induction training to all the new workers employed must be imparted by the management before assigning any work and records maintained.

*(x)* In case of any burn injury during the process of work, the affected person is to be immediately quenched with cool water for sufficient time.

*(xi)* It must be kept in mind while cooling down, water may be poured on the hot object but not the *vice versa* as it may cause explosion.

**4. Safe Operation Procedure :** —

The following procedure must be ensured : —

*(i)* Daily temperature monitoring of Dust Settling Chamber / After Burn Chamber is to be carried out and maintained in a logbook ; and such monitoring may be carried out by use of infrared pyrometers.

*(ii)* Adequate steps be taken to maintain prescribed temperature in the DSC and ABC to avoid quick formation / sticking of fused materials to the walls.

*(iii)* The wet scrubber must be functional.

*(iv)* Provision of vertical slits on the Dust Settling Chamber bottom may help in ensuring functioning of Dust Settling Chamber.

*(v)* Provision of an auto control pump be provided to spray water in After Burn Chamber, when the desired temperature shoots up and is cut off when the temperature is within the prescribed limit.

**5.Safe Maintenance Procedure:** —

The process of accretion cutting shall be made by way of (i) Manual Process; *(ii)* Mechanised process.

*(i)* Manual process:— Below 300 Tons Per Day capacity kilns shall carry out manual accretion cutting by a team of suitable trained personnel well equipped with personal protective equipments and to be allowed to work after the kiln comes to room temperature.

*(ii)* Mechanised process :— 300 Tons Per Day capacity and above kilns are prohibited to carry out accretion cutting manually. The mechanized process to be applied for accretion cutting after the kiln comes to room temperature.

Further, the following facilities shall also be made available : —

*(a)* Provision of suitable stair ladder, platform and personal protective equipment be made available for height works.

*(b)* Provision of pull cord be made available in the belt conveyor system with guarding of the tailend.

*(c)* Safety tips to be imparted to all the workers before their engagement in accretion cutting work in the rotary kiln, dust settling chamber and after burn chamber.

*(d)* Records of imparting safety tips be maintained in a register which shall be kept readily available for inspection by the Inspector.

**6. Medical Facilities and Records of Examinations and Tests:** —

*(1)* The occupier of every factory to which this Schedule applies shall—

*(a)* conduct health check up by a qualified medical practitioner for medical surveillance of workers employed therein.

*(b)* Provide to the medical practitioner all the necessary facilities for the purpose referred to in clause (a).

*(2)* The record of such examinations carried out by the medical practitioner shall be maintained in a separate register which shall be kept readily available for inspection by the Inspector.

**7. Medical Examination by Certifying Surgeon:** —

Every worker employed in the processes shall be examined by a certifying surgeon within 15 days of his first employment. No worker shall be allowed to work unless certified fit for such employment by the certifying surgeon.

**8. Periodical Health Check up:** —

Periodical health check up of every worker shall be conducted at an interval not exceeding twelve months and records of such examination be maintained in a separate register. The register shall be made available for verification on demand by the Inspector.

**9. Maintenance of Register for Accretion Cutting:** —

The occupier of every factory to which this Schedule applies shall maintain a register for accretion cutting indicating kiln number, date(s) of such cutting, kiln temperature and the precautionary measures taken prior to commencement of accretion cutting and duly signed by the shop-floor supervisor and head of concerned section. Such records shall be kept ready for verification on demand by the Inspector.

## SCHEDULE-XXVIII

*Operations in Foundries and Furnaces*

**1. Application :-** Provisions of this schedule shall apply to all parts of factories where any of the following operations or processes are carried on : —

*(a)* the production of iron castings or, as the case may be, steel castings by casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by shell moulding, or by centrifugal casting and any process incidental to such production;

*(b)* the production of non-ferrous castings by casting metal in moulds made of sand, loam, metal, moulding composition or other material or mixture of materials, or by shell mouldings, die-casting (including pressure diecasting), centrifugal casting or continuous casting and any process incidental to such production, and

*(c)* the melting and casting of non-ferrous metal for the production of ingots, billets, slabs or other similar products, and the stripping thereof.

**2. Definition :-** For the purpose of this schedule –

*(a)* "approved respirator" means a respirator of a type approved by the Chief Inspector;

*(b)* "cupola of furnace" includes a receiver associated therewith;

*(c)* "dressing or fettling operations" includes stripping and other removal of adherent sand, cores, runners, risers, flash and other surplus metal from a casting and the production of reasonably clean and smooth surface, but does not include (i) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of castings after they have been dressed or fettled, or (ii) any operation which is knock-out operation within the meaning of this schedule;

*(d)* "foundry" means those parts of a factory in which the production of iron or steel or non-ferrous castings (not being the production of pig iron or the production of steel in the form of ingots) is carried on by casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by shell moulding or by centrifugal casting in metal moulds lined with sand, or diecasting including pressure diecasting, together with any part of the factory in which any of the following processes are carried on as incidental processes in connection with and in course of, such production, namely, the preparation and preparation of moulds and cores, knock out operations and dressing or fettling operations;

*(e)* "knock-out operations" means all methods of removing castings from moulds and the following operations, when done in connection therewith, namely, stripping, coring-out and the removal of runners and risers;

*(f)* "pouring aisle" means an aisle lading from a main gangway or directly from a cupola or furnace to where metal is poured into moulds.

*(g)* Qualified Supervisor :- Means a person possessing a Bachelor's Degree in Science or Diploma or Degree in Engineering with Certificate on ferrous/non-ferrous technology from any recognized institute.

**3. Prohibition of use of certain materials as parting materials :** —

(1) A material shall not be used as a parting material if it is a material containing compounds of silicon calculated as silica to the extent more than 5 per cent by weight of the dry material: Provided that this prohibition shall not prevent the following being used as a parting material if the material does not contain an admixture of any other silica –

*(a)* Zirconium silicate (Zircon)

*(b)* Calcined china clay

*(c)* Calcined aluminous fireclay

*(d)* Sillimanite

*(e)* Calcined or fused alumina

*(f)* Olivine

*(g)* Natural sand

(2) Dust or other matter deposited from a fettling or blasting process shall not be used as a parting material or as a constituent in a parting material.

**4. Arrangement and storage**—For the purposes of promoting safety and cleanliness in workrooms the following requirements shall be observed : —

*(a)* moulding boxes, loam plates, ladles, patterns, pattern plates, frames, boards, box weights, and other heavy articles shall be so arranged and placed as to enable work to be carried on without unnecessary risk;

*(b)* suitable and conveniently accessible racks, bins, or other receptacles shall be provided and used for the storage of other gear and tools;

*(c)* where there is bulk storage of sand, fuel, metal scrap or other materials or residues, suitable bins, bunkers or other receptacles shall be provided for the purpose of such storage.

**5. Construction, Installation and Operation**—

*(a)* The precinct in which induction furnace is installed shall be of adequate strength and shall be segregated from the other parts of the factory in such a way so that minimum number of workers is exposed to the risk of any fire or explosion at any time;

*(b)* Furnace shed shall be well ventilated;

*(c)* All the fittings and attachment of induction furnace shall be of good construction, sound material and adequate strength;

*(d)* Adequate arrangements shall be made to avoid tilting of the ladles while transportation;

*(e)* Ladle shall not be filled with molten metal more than ¾ $^{th}$ of its volume to avoid spillage of molten metal while being carried by the crane;

*(f)* The refractory material of the induction furnace shall be strong at high temperature, resistant to thermal shock, chemically inert, low thermal conductivity and coefficient of expansion and of adequate uniform thickness;

*(g)* The lining of the induction furnace shall be checked by qualified supervisor every week for any wear and tear and damage and records maintained thereof.

*(h)* Adequate precautions shall be taken during repair of induction furnace.

**6. Construction of floors**—

*(1)* Floors of indoor workplaces in which the processes are carried on, other than parts which are of sand, shall have been surface of hard material.

*(2)* No part of the floor of any such indoor workplace shall be of sand except where this is necessary by reason of the work done.

*(3)* All parts of the surface of the floor of any such indoor workplace which are of sand shall, so far as practicable, be maintained in an even and firm condition.

**7. Means of Escape in case of Imminent Danger :**—

There shall be at least two ways of escape with adequate width at opposite ends of the furnace platforms. Onsite emergency plan shall be submitted for acceptance by Chief Inspector.

**8. Display of notice :** —

Notice regarding non-use of water, etc. near induction furnace shall be displayed.

**9. Charging of scrap in Induction Furnace :** —

*(a)* No scrap material with close cavities shall be charged in the induction furnace. Scrap to be charged shall be dry and shall not contain oil or any other liquid or moisture.

*(b)* No scrap material shall be fed into Induction Furnace unless it is thoroughly checked in the presence of qualified supervisor.

(*c)* No closed container scrap shall be fed into the furnace unless it is cut into pieces. Such container shall be rendered safe by suitable means.

*(d)* No wet scrap material shall be charged into the induction furnace.

*(e)* Scrap received in the form of pressed bundle should be opened, sorted and only then fed into furnace.

**10. Cleanliness of indoor workplaces :** —

(1) All accessible parts of the walls of every indoor workplace in which the processes are carried on and of everything affixed to those wall shall be effectively cleaned by a suitable method to a height of not less than 4.2 metres from the floor at least once in every period of twelve months. A record of the carrying out of every such effective cleaning in pursuance of this paragraph including the date (which shall be not less than five months nor more than nine months) after the last immediately preceding washing, cleaning or other treatment.

(2) Effective cleaning by a suitable method shall be carried out at least once in every working day of all accessible parts of the floor of every indoor workplace in which the processes are

carried on, other than parts which are of sand; and the parts which are of sand shall keep in good order.

**11. Manual operations involving molten metal :** —

*(1)* There shall be provided and properly maintained for all persons employed on manual operations involving molten metal with which they are liable to be splashed, a working space for that operation –

*(a)* which is adequate for the safe performance of the work; and

*(b)* which, so far as reasonably practicable, is kept free from obstruction.

*(2)* Any operation involving the carrying by hand of a container holding molten metal shall be performed on a floor all parts of which where any person walks while engaged in the operation shall be on the same level.

Provided that, where necessary to enable the operation to be performed without undue risk, nothing in this paragraph shall prevent the occasional or exceptional use of a working space on a different level from the floor, being a space provided with a safe means of access from the floor for any person while engaged in the operation.

**12. Gangways and pouring aisles :**—

*(1)* In every workroom to which this paragraph applies constructed, reconstructed or converted for use as such after the making of this Schedule and, so far as reasonably practicable, in every other workroom to which this Paragraph applies, sufficient and clearly defined main gangway shall be provided and properly maintained, which –

*(a)* shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;

*(b)* shall be kept, so far as reasonably practicable, free from obstruction;

*(c)* if not used for carrying molten metal, shall be at least 920 millimetres in width;

(*d)* if used for carrying molten metal shall be

*(i)* where truck ladles are used exclusively, at least 600 millimetres wider than the overall width of the ladle;

*(ii)* where hand shanks are carried by not more than two men, at least 920 millilmetres in width;

*(iii)* where hand shanks are carried by more than two men, at least 1.2 metres in width; and

*(iv)* where used for simultaneous travel in both directions by men carrying hand shanks, at least 1.8 meters in width.

(2) In workroom to which this Paragraph applies constructed, reconstructed or converted for use as such after the making of this Schedule, sufficient and clearly defined pouring aisles shall be provided and properly maintained which -

*(a)* shall have an even surface of hard material and shall, in particular, not be sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;

*(b)* shall be kept so far as reasonably practicable free from obstruction;

*(c)* if molten metal is carried in hand ladles or bulk ladles by not more than two men per ladle, shall be at least 460 millimetres wide, but where any moulds alongside the aisle are more than 510 millimetres above the floor of the aisle, the aisle shall be not less than 600 millimetres wide;

*(d)* if molten metal is carried in hand ladles or bull ladles by more than two men per ladle, shall be at least 760 millilmetres wide;

*(e)* if molten metal is carried in crane, trolley or truck ladles, shall be of a width adequate for the safe performance of work.

(3) Requirements of sub-paragraph (1) and (2) shall not apply to any workroom or part of a workroom if, by reason of the nature of the work done therein, the floor of that workroom or, as the case may be, that part of a workroom has to be of sand.

(4) In this paragraph "workroom to which this paragraph applies" means a part of a ferrous or non-ferrous foundry in which molten metal is transported or used, and a workroom to which this paragraph applies shall be deemed for the purposes of this paragraph to have been constructed, reconstructed or converted for use as such after the making of this schedule if the construction, reconstruction or conversion thereof was begun after making of this schedule.

**13. Work near cupolas and furnaces :** —

No person shall carry out any work within a distance of 4 metres from a vertical line passing through the delivery end of any spout of a cupola or furnace, being a spout used for delivering molten metal, or within a distance of 2.4 metres from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except, in either case, where it is necessary for the proper use of maintenance of a cupola or furnace that work should be carried out within that distance of that work is being carried out at such a time and under such conditions that there is no danger to the person carrying it out from molten metal which is being obtained from the cupola or furnace or is in a ladle in position at the end of the spout.

**14. Dust and fumes :** —

*(1)* Open coal, coke or wood fires shall not be used for heating or drying ladles inside a workroom unless adequate measures are taken to prevent, so far as practicable, fumes or other impurities from entering into or remaining in the atmosphere of the workroom.

*(2)* No open coal, coke or wood fires shall be used for drying moulds except in circumstances in which the use of such fires is unavoidable.

*(3)* Mould stoves, core stoves and annealing furnaces shall be so designed, constructed, maintained and worked as to prevent, so far as practicable, offensive or injurious fumes from entering into any workroom during any period when a person is employed therein.

*(4)* All knock-out operations shall be carried out –

(*a)* in a separate part of foundry suitably partitioned off, being a room or part in which, so far as reasonably practicable, effective and suitable local exhaust ventilation and a high standard of general ventilation are provided; or

*(b)* in an area of the foundry in which, so far as practicable, effective and suitable local exhaust ventilation is provided, or where compliance with this requirement is not reasonably practicable, a high standard of general ventilation is provided.

*(5)* All dressing or fettling operations shall be carried out –

(a) in a separate room or in a separate part of foundry suitably partitioned off; or

(b) in an area of the foundry set for the purpose;

and shall, so far as reasonably practicable, be carried out with effective and suitable local exhaust ventilation or other equally effective means of suppressing dust, operating as near as possible to the point of origin of the dust.

**15. Maintenance and examination of exhaust plant:** —

*(1)* All ventilation plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be properly maintained.

*(2)* All ventilating plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person approved by the Chief Inspector of Factories at least once in every year. Such examination and test shall be entered in a register which shall be made available for inspection by an Inspector. Any defect found on any such examination and carrying out the examination and test shall be intimated by the competent person forthwith to the occupier or manager of the factory for compliance under intimation to the Inspector.

**16. Protective equipment:** —

*(1)* The occupier shall provide and maintain personal protective equipment specified for the protection of workers.

*(a)* Suitable gloves to other protection for the hands for workers engaged in handling any hot material likely to cause damage to the hands by burn, scald, or scar, or in handling pig iron, rough castings or other articles likely to cause damage to the hands by cut or abrasion;

*(b)* Approved respirators for workers carrying out any operations creating a high dust concentration which cannot be dispelled quickly and effectively by the existing ventilation arrangements.

*(2)* No respirator provided for the purposes of clause 1(b) has been worn by a person shall be worn by another person if it has not since been thoroughly cleaned and disinfected.

*(3)* Persons who for any of their time –

*(a)* work at a spout of or attend to, a cupola or furnace in such circumstances that material therefrom may come into contact with the body, being material at such a temperature that its contact with the body would cause a burn; or

*(b)* are engaged in, or in assisting with, the pouring of molten metal; or

*(c)* carry by hand or move by manual power any ladle or mould containing molten metal; or

*(d)* are engaged in knocking-out operations involving material at such a temperature that its contact with the body would cause a burn;

shall be provided with suitable footwear and gaiters which worn by them prevent, so far as reasonably practicable, risk of burns to his feet and ankles.

(4) Where appropriate, suitable screens shall be provided for protection against flying materials (including splashes of molten metal and sparks and chips thrown off in the course of any process).

(5) The occupier shall provide and maintain suitable accommodation for the storage and make adequate arrangements for cleaning and maintaining of the protective equipment supplied in pursuance of this paragraph.

(6) Every person shall make full and proper use of the equipment provided for his protection in pursuance of sub-paragraphs (1) and (4) and shall without delay report to the occupier, manager, or other appropriate person any defect in, or less of, the same.

(7) Workers working in the furnace / casting pit area shall be provided with cotton clothes, safety shoes, leg guards, apron, face shield, hand gloves and safety helmet.

(8) Workers employed for segregation of scrap shall be provided with safety shoes and hand gloves.

(9) Fire retardant and heat retardant clothing shall be provided to all the workers working on platform of induction furnace.

**17. Training and Supervision:** —

*(a)* All operations under this Schedule shall be carried out under the supervision of qualified supervisors at all times.

*(b)* Workers carrying out operations and maintenance activities in foundries and furnaces shall be adequately trained.

**18. Washing and Bathing facilities :** —

(1) Washing and bathing facilities shall be provided and maintained in clean state and good repair for the use of all workers employed in the foundry –

*(a)* a wash place under cover with either –

*(i)* a trough with impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimetres for every 10 such persons

employed at any one time and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60 centimetres; or

*(ii)* at least one tap or stand pipe for every 10 such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 1.2 metres apart; and

*(b)* not less than one half of the total number of washing places provided under clause (a) shall be in form of bath rooms.

*(c)* a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.

(2) The facilities provided for the purposes of sub-paragraph (1) shall be placed in charge of a responsible person or persons and maintained in a clean and orderly condition.

**19. Disposal of dross and skimming :** —

Dross and skimming removed from molten metal or taken from a furnace shall be placed forthwith in suitable receptacles.

**20. Disposal of waste :** —

Appropriate measures shall be taken for the disposal of all waste products from shell moulding (including waste burnt sand) as soon as reasonably practicable after the castings have been knocked-out.

**21. Material and equipment left out of doors:** —

All material and equipment left out of doors (including material, and equipment so left only temporarily or occasionally) shall be so arranged and placed as to avoid unnecessary risk. There shall be safe means of access to all such material and equipment and, so far as reasonably practicable, such access shall be by roadways or pathways which shall be properly maintained. Such roadways or pathways shall have a firm and even surface and shall, so far as reasonably practicable be kept free from obstruction.

**22. Medical facilities and records of examinations and tests:** —

(1) The occupier of every factory to which this Schedule applies, shall –

*(a)* conduct health check-up by a qualified medical practitioner for medical surveillance of the workers employed therein; and

*(b)* provide to the medical practitioner all necessary facilities for the purpose referred to in clause (a).

(2) The record of such examinations carried out by the medical practitioner shall be maintained in a separate register, which shall be kept readily available for inspection by the Inspector.

**23. Medical examination by Certifying Surgeon –**

(1) Every worker employed in the processes specified in paragraph (1) shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examinations shall include skin test for dermatitis and no worker shall be allowed to work after 15 days of his first employment in the factory, unless certified fit for such employment by a Certifying Surgeon.

(2) Every worker employed in a manganese process shall be re-examined by a Certifying Surgeon at least once in every three calendar months and such examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests in sub-paragraph (1).

(3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 25. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraph (1) and (2) including the nature of the results of these tests, shall also be entered by the Certifying Surgeon in a health register in Form 31.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.

(5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit to work in the said process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.

(6) No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.

(7) Workers working in the furnace / casting pit area shall be medically examined by qualified medical officer once in a year.

**24. Exemptions :** —

If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances of infrequency of the processes or for any other reason, all or any of the provisions of this Schedule is not necessary for the protection of the workers in the factory, the Chief Inspector may issue a certificate in writing for the purpose, which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions, subject to the conditions, if any, as he may specify therein.

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By order of the Governor

JAGAR SINGH

Commissioner-*cum*-Secretary to Government

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