Government of Maharashtra

Directorate of Industrial Safety and Health

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Subject: Automobile and ancillary factories

Introduction:

In the current situation of Covid-19 lockdown, the inspection of all the factories may not be possible by this directorate. Hence all such type of factories are hereby directed to follow the following safety measures in addition to the provisions of The Factories Act, 1948 and The Maharashtra Factories Rules, 1963.

The given guide lines are not exhaustive in nature; any additional precaution as may be necessary based on specific requirement should be adopted by the factory management for safe manufacturing operation of the factory based on the nature of manufacturing activity

- 1. All factory buildings shall be properly ventilated before admitting any personnel. This should be checked and verified by a designated Safety Officer or in his absence by competent senior personnel of the factory. Locker room/wash rooms shall be thoroughly checked for insect, snakes etc.
- 2. The start-up activities shall be monitored and lead by experienced and knowledgeable person. Only trained/skilled workers shall be authorised to operate the plant and required number of persons shall be ensured for safe operations.
- 3. Proper PPE shall be ensured for workers engaged in the initial cleaning and start-up process to address leakage/presence of toxic gases.
- 4. Identify all potential hazards due to lock down and based on that Safe Operating Procedure (SOP) shall be prepared and shall be strictly followed. All type of work permit systems shall be strictly followed.
- 5. Each individual electrical panel shall be checked for intactness of wiring and function of breakers, relays and protections provided. Also conditions of flame proof fittings provided.
- 6. LOTO process to be followed cleaning, servicing, adjusting or setting up operations.
- Pits, chambers, tanks and other confined space shall be checked thoroughly before entry for any working.
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Inside atmosphere testing shall be carried out to know the presence of oxygen at three different levels ie. Top, middle & bottom (or to know presence of any toxic fumes). Equipments for providing mechanical ventilation and other required protective wears shall be kept ready for carrying out this type of work.

- 8. Machines shall be checked for functioning of all control system. (Control trial may be taken.) All measuring devices/instruments shall be checked /recalibrated.
- Power press machine, injection moulding machines, rubber moulding machines etc. shall be checked for its safety interlock .Safety precautions as per provisions of Rule 57 of Maharashtra Factories Rules 1963 shall be taken.
- 10. All lubricating points shall be checked for lubrication quality/quantity.
- 11. Whether all the utility systems are properly functioning shall be checked That will include Thermic fluid systems, boilers, cooling towers, Generator sets, fire hydrant pumps etc.
- 12. Thermic fluid heater fluid shall be checked for any deterioration.
- 13. Heat treatment quenching oil quality parameters shall be checked and if required shall be replaced.
- 14. Painting booth / Powder coating booth shall be inspected thoroughly. Flameproof fittings shall be checked for its integrity. All grounding shall be checked for its proper connection and resistance. Scrubbing system shall be checked.
- 15. Efficacy of flameproof fittings shall be checked regularly. As per provisions of Sch XXIII of Maharashtra Factories Rules, standard flameproof electrical fittings shall be provided in the areas where highly flammable solvents/ paints/ thinners/chemicals are used/stored.
- 16. LPG manifold hoses shall be checked for its integrity also pipe line joints shall be checked for leakage before charging of LPG. Leak detection systems shall be checked.
- 17. LPG bullets area shall be checked for function of grounding system, sprinkler system, leak detection and availability of fire fighting system.
- 18. Safety systems for ammonia storage, methanol storage shall be checked thoroughly, sensors provided for leak detection shall be checked.
- 19. Induction furnace shall be checked thoroughly. Its lining shall be replaced. All electrical systems shall be checked. All essential parameters of furnace and support systems shall be checked. Ensure all necessary PPE's with sufficient quantities are available.
- 20. Forklifts, stackers, trolleys and other material handling systems shall be checked as per manufactures recommendations.
- 21. All lifting machines and lifting tackles shall be thoroughly checked for its safe operation.
- 22. Assembly line safety interlock shall be checked.
- 23. Arrangement to prevent heat stress in high heat area such as forging, heat treatment area shall be in place. (Force ventilation, cooling arrangement, drinking water arrangement etc.)
- 24. Electroplating system electric system, chemical compositions of the tank material shall be checked. Also efficient functioning of local exhaust system shall be checked.

- 25. Safety shower/ eye wash systems shall be checked or clean water supply and normal temperature.
- 26. Shot blasting machine shall be checked for leakages and if worker enters in the blasting chamber then required clothing and PPE's shall be ensured. Alarm provided for operator shall be checked for its function.
- 27. All safety interlocks provided shall be checked before start up and shall not be bypassed.
- 28. All safety devices shall be tested. Safety valves shall be checked to ensure they are not stuck up.
- 29. SCABA sets shall be checked for correct air pressure.
- 30. All process parameters/alarms set in the DCS/SCADA/PLC shall be re verified.
- 31. Required quantities of PPE'S shall be ensured.
- 32. Fire system/extinguisher/alarm/detection systems shall be checked.
- 33. Potable water/drinking water parameter shall be checked.
- 34. For Storage Tanks and Chemical storages
 - a) Check the inventory of chemicals and a physical check
 - b) Physical check of the pipelines and transfer pumps
 - c) Chemical quality check of certain key chemicals in the Laboratory
 - d) Check of control systems provided like level indicators, alarms etc
- 35. Ensure adequate availability of scrubbing medium (wherever applicable), proper antidotes.
- 36. If regular operator/supervisor is not available then if new person is assigned his responsibility then it shall be ensured that he shall be trained and competent to handle.
- 37. Cross functional team shall be formed for start-up activity and team member shall be competent.
- 38. Step by step start up procedure shall be followed.
- 39. Wherever possible emergency services shall be kept on standby or Onsite emergency plan to be activated for meeting unforeseen situation, during cleaning/start-up of plant.

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