

**BHARAT DYNAMICS LIMITED
CORPORATE OFFICE
GACHIBOWLI, HYDERABAD**

CIRCULAR

Ref: BDL/04/C-HR/2020

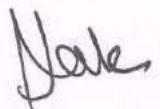
Date: 11-05-2020

Sub: Guidelines on restarting manufacturing industries after lockdown - Reg.,

- Ref: (i) Circular of even no. dated: 22-03-2020, 23-03-2020, 28-03-2020, 08-04-2020, 14-04-2020, 16-04-2020, 01-05-2020 and 03-05-2020
(ii) MHA , GoI order no. 40-3/2020-DM-I(A) dated: 15-04-2020 and 01-05-2020
(iii) MoD, GoI Lr. No. 5(2)/2019-D(Coord/DDP) dated: 15-04-2020 and email dated: 02-05-2020.
(iv) NDMA, MHA guidelines for restarting manufacturing industries after lockdown dated: 09-05-2020.

In order to prevent spread of COVID-19, nationwide lockdown was ordered by the Government w.e.f. 23-03-2020 and recently relaxation to the lockdown has been given to start economic activity in certain areas w.e.f. 04-05-2020. To have a successful and safe restart of the Industries after COVID-19 lockdown, NDMA, MHA has issued guidelines (**Annexure - I**) supplementing earlier SOP and advised to ensure strict compliance.

In accordance with Government directives our Company was closed w.e.f. 23-03-2020 and has restarted w.e.f. 04-05-2020. All Unit / Division Heads are requested to ensure compliance of the guidelines meticulously as applicable to the Unit / Division.


(**SYED RAFFE**)
GENERAL MANAGER (HR)

- To: i) All Unit / Division Heads
ii) All Unit HR Heads
iii) Officers' Assn / Employees' Union
iv) Notice Boards / Website / Intranet

Copy for information to:

- i) D(F), D(T), D(P), CVO
ii) EA to CMD - For information of CMD

Guidelines for restarting manufacturing industries after lockdown**Generic guidelines:**

1. While restarting the unit, consider the first week as the trial or test run period; ensure all safety protocols; and not try to achieve high production targets.
2. To minimize the risk it is important that employees who work on specific equipment are sensitized and made aware of the need to identify abnormalities like strange sounds or smell, exposed wires, vibrations, leaks, smoke, abnormal wobbling, irregular grinding or other potentially hazardous signs which indicate the need for an immediate maintenance or if required shutdown.
3. Especially during the Covid-19 times, ensure all lockout and tagout procedures are in place on a daily basis (not applicable for units running 24hrs).
4. Inspection of all equipment as per the safety protocols during the restart phase
5. In case the industry has any difficulty in managing crucial backward linkages that may be critical for their safe functioning, they should approach the local district administration for specific assistance. District Magistrates may be instructed to ensure that in such instances, the industrial unit may be facilitated to run their end to end operations, in the overall interests of industrial security.

For specific industrial processes:**1. Storage of raw material**

- a. Inspect the storage facilities for any signs of spills, wear and tear during the lockdown.
- b. Check for already opened storage vessels/containers/bags/silos for possible oxidation/chemical reaction/ rusting/ rotting etc.
- c. HAZMAT Chemicals in the storage need to be checked for chemical stability before using for any processes
- d. Ensure ventilation and proper lighting before entering the storage areas
- e. Sense for abnormalities like strange sounds or smell, exposed wires, leaks and smoke
- f. Check supply pipelines/valves/conveyor belts for any signs of damage/wear & tear
- g. Check the storage building for any signs of distress and damage to the roof.

2. Manufacturing Processes

- a. Carry out a complete Safety Audit of the entire unit before taking up starting activities
- b. Cleaning of pipelines, equipment and discharge lines: Mechanical cleaning followed by air /water flushing and chemical cleaning based on the type of the process equipment
- c. Run-in of rotatory equipment under supervision
- d. Boilers/ furnaces/ heat exchangers to be checked for lining and signs of wear and tear
- e. Check supply pipelines/valves/conveyor belts for any residual material and wear and tear. Also check all the pipelines / valves for obstructions/ pressure levels.
- f. Ensure all pressure, temperature gauges are functional
- g. **Tightness test:** Many process units handle combustibles or toxic substances (or both), the leakage of which could result in disaster, damage, or economic loss. To prevent the occurrence of such incidents, it is necessary to confirm that the plant complies with the required tightness before start-up.

- h. **Service test** need to be performed for all water, compressed air, and steam piping and equipment with normal operating fluids. The system is first pressurized with operating fluids and then checked for leakage. For air lines, leaks can be found using soap solution. For water and condensate lines, the leakage can be observed visually. Leakage points found during the test are retightened. The test is deemed successful if no foam is observed from soap solution, or if no water or condensate is observed visually.
- i. **Vacuum hold test:** All vacuum systems must be leak tested. Air inside the system is first evacuated to attain the required vacuum. The best way is to start at one end of the section and work through to the other end, checking flanges, valves, fittings, instruments, and other equipment. Each leak is tagged, making it easy for the maintenance team and personnel of the next shift to continue with the work.
- j. Trial testing be carried out before the full-fledged production is initiated with full human resources
- k. Ensure the arrangement for round-the-clock emergency crews/ professional technical teams provided with MAH and cluster of MAH should have an extended coverage of 200 km to reach transport accident spots for help

3. Storage of products

- a. Check the storage facilities / silos for any damage or wear and tear

4. Guidelines for the workers

1. Ensure 24 -hour sanitisation of the factory premises.
 - a. Factories need to maintain a sanitisation routine every two-three hours especially in the common areas that include lunch rooms and common tables which will have to be wiped clean with disinfectants after every single use.
 - b. For accommodation, sanitisation needs to be performed regularly to ensure worker safety and reduce spread of contamination.
2. Entrance health checks
 - a. Temperature checks of all employees to be done twice a day.
 - b. Workers showing symptoms should not report to work.
3. Provisions of hand sanitisers and mask to all employers.
 - a. Providing gloves, masks and hand sanitisers to be done at all factories and manufacturing units.
4. COVID 19 health and prevention staff education
 - a. Education on safety steps to take from entry to exit in the factory
 - b. Measures to take precautions at personal level
5. Quarantine measures for supply and storage of goods
 - a. Sterilise boxes and wrapping brought into factory premises
 - b. Isolate and sanitise finished goods as appropriate
 - c. Delivery of goods in shifts
6. Physical distancing measures
 - a. Create physical barriers to ensure the physical distance within the work floor and dining facilities
 - b. Provide face protection shields along with masks and PPEs.
7. Working in shifts
 - a. Factories that work 24 hours at full production capacity should consider one hour gap between shifts, except factories/plants requiring continuous operations.
 - b. Managerial and administrative staff should work one shift at 33 per cent capacity as per MHA guidelines; but while deciding which particular person to be included in

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33% at any given point of time, overriding priority should be given to personnel dealing with safety.

- c. Ensure no sharing of tools or workstations to the extent possible. Provide additional sets of tools if needed.
8. Scenario plan on discovering a positive case
 - a. Factories have to prepare accommodation to isolate workers, if needed.
 - b. HR has to help manage the whole process for individual, all travelling employees also to undergo a mandatory 14-day quarantine
9. Presence of skilled workers

Workers involved in dealing with hazardous material must be skilled and experienced in the field. No compromise on deployment of such workers should be permitted when an industrial unit is opened up.

