

RM Insight[®]

Shutting down machinery – The business fight against COVID-19

The information in this document provides general guidance only. It provides a general list of what your business may need to consider from a risk control perspective when deciding to shut down machinery. We have not considered your business' particular circumstances and any Government restrictions due to COVID-19 (which may change), and so you may need to consider how this applies in your circumstances, or if you need to seek appropriate professional advice. For any queries about insurance cover, please contact your insurer or insurance broker.

Governments around the world have been required to act swiftly and decisively to slow the pandemic. This has produced opportunities for some businesses but most have had to operate differently just to survive.

In some instances, management and employees provided a cursory clean-up of their premises, turned off machinery, gathered their personal belongings and just walked out the door locking it behind them.

To prepare for and eventually undertake your business recovery (once declared possible by the Government), refer to the following risk mitigation strategies for shutting down machinery safely and carefully.

1. Contact various original equipment manufacturers (OEM) for recommended shutdown procedures and guidance on preparing equipment for long term idle periods.
2. Remove all process materials from process vessels, tanks, pumps and pipework.
3. Fasten covers over all building air condition/ventilation vent openings to prevent entry by insects, rodents, birds and other animals.
4. Corrosion protection:
 - ▼ separate dissimilar metals to prevent possible galvanic corrosion
 - ▼ consult the OEM for advice on the optimal method of corrosion protection systems for the metal parts of a machine (liquid protective waxes, polyvinyl chloride (PVC) spray coatings, vapour space inhibitors (VCI's), water

absorbing desiccants, oxygen scavengers, protective plastic films etc.)

- ▼ boilers - the wet side of the boiler should be left full of feed-treated water (consult your water treatment company for advice on optimal chemical composition of the treated water). The fire side should be provided with heated dry air and include a desiccant package (for moisture absorption).
5. Large petrol and diesel powered engines:
 - ▼ drain fuel
 - ▼ add rust inhibitor to lube and seal oil
 - ▼ add rust inhibitor to coolant (consult the OEM for advice on appropriate rust inhibitors).
 6. Electrical plant:
 - ▼ lift carbon brushes from commutators/slip rings in large motors and generators
 - ▼ leave oil filled transformers energised.
 7. Maintain clean and dry conditions for sensitive electrical control equipment (PLCs, VSDs electronic field devices etc.) including associated spare parts (control cards etc.). Use desiccant packages and seal electrical enclosures.
 8. Compose a plant deactivation list and clearly mark equipment to indicate to operators involved with the future plant restart of what has been done to preserve the equipment (not documenting what has been done to equipment during the shutdown process can lead to situations being overlooked and ultimately damage equipment).



9. Experienced maintenance personnel should inspect the plant monthly:
 - ▼ rotate large rotating equipment 90 degrees to prevent bearing brinelling (consult the OEM for advice)
 - ▼ replace desiccants as needed
 - ▼ check protective coatings applied to metal surfaces and reapply as needed
 - ▼ conduct refrigerant leak testing on large refrigeration plant
 - ▼ check for rodent damage to electrical systems.

Powered / energised plant and equipment should only be worked upon by competent persons following safe working procedures.

For more information:
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