The protection of unoccupied industrial plants

It is sometimes necessary for production facilities or industrial plants to be fully or partially shut down, remain mostly unoccupied for a period of time, or operate with reduced staff. The following precautions should be taken to ensure the proper level of protection in these idle or partially idle facilities is being maintained.

- **Maintain all fire protection systems in service and good conditions.**
  All fire protection systems must remain in service even when the plant is shut-down. There should be no planned impairment of fire protection during idle plant periods.

- **Maintain a core staff on site that could respond to an emergency**
  Even with automatic protection in service, manual response is needed to control and extinguish a fire. The core staff should include members from the various departments. Arrange and test communication equipment available to team members on and off-site as dictated by the situation. Ensure that the team has written plans to deal with any possible natural hazard.

- **Maintain adequate management control programs including weekly fire equipment inspections and loss prevention tours**
  Fire protection equipment must be properly tested, inspected and maintained even when the plant is shut-down. This includes testing of the fire pumps and sprinkler systems. These tests should be performed by an in-house pre-trained core team. Prepare to have minimal reliance on external fire contractors.

- **Eliminate all controllable sources of ignition such as hot work, smoking etc.**
  When the plant is only occupied by a core staff, all activities that create potential ignition sources should not be permitted.

- **Maintain building heat at a safe level to prevent damage to sprinkler piping and process piping**
  In the cold winter season it is important to maintain minimum temperatures in the buildings to prevent freeze-up of water piping. Freeze ups of piping could result in pipe breaks and could cause major water damage since the plant is only occupied by a core staff and a leak would not be discovered right away.

- **Ensure that utilities such as electricity, natural gas, and water remain in service**
  Continuous supply of utilities is important to supply key equipment such as heating, lighting etc.

- **Take proper security measures (watchman etc.) to prevent unauthorized access and vandalism**
  When the plant is not operating it may become the target of intruders.

- **Safe shut-down production equipment such as ovens, furnaces etc.**
  Follow the proper procedures to execute the safe and proper shut-down of all equipment and machinery. Take special precautions for fired equipment and machinery and equipment using flammable and combustible liquids.

- **Discuss the situation with the fire department and develop response plans taking into account the minimum level of employees available on site**
  With only a core staff on site, the fire department needs to consider these circumstances in their pre-emergency and response plans.

- **Monitor external risk such as flood and extreme weather**
  It is important to monitor the external situation and notify additional staff to prepare for a major incident such as a storm or flood event.

When the plant is not operating it may become the target of intruders.
• **Interact with neighbors or adjacent property owners to keep them informed**
  
  Keep your neighbors informed of the situation in your plant and also communicate with them to keep yourself up to date with their situation.

• **Ensure the intranet is completely isolated from the public network or the firewall is impenetrable**
  
  There should be no cyber risk during the idle period. Ensure that the UPS is functional.

• **Develop plans and procedures for a safe start-up of the plant once the situation is back to normal**
  
  Follow the proper procedures for the safe start-up of machinery and equipment. Don’t take short-cuts to speed up the start-up process.

To learn more, contact your local AXA XL Risk Consulting contact.