Operational environmental risk management in idle facilities

Crisis events often mean that affected facilities have to be either partially or completely shut down. To maintain an appropriate level of environmental risk management and protection, AXA XL Risk Consulting suggests that the following precautions be taken to ensure the safety of the surroundings and of the environment around your facilities.

Maintain a core team to respond to an emergency.
Even with automatic protection processes in place, a manual response is often needed to effectively deal with emergencies. The core team should include members from the various departments and be adequately updated on the proper response in the event of an environmental breach. 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 emergencies.

Maintain adequate management control programs, including weekly equipment inspections and loss prevention tours.
Environmental and fire protection equipment must be properly tested, inspected and maintained even when the plant is shut down. This includes regular inspections of pipelines and tanks, leak detection devices, and testing of fire pumps and sprinkler systems. These tests should be performed by an in-house, pre-trained core team and should be documented.

Safe shut-down production equipment such as ovens, furnaces, chemical reaction vessels, 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 for machinery and equipment that requires the use of hazardous liquids.

Maintain all fire protection systems in service and good condition.
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.

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

Take proper security measures (guards etc.) to prevent unauthorized access and vandalism.
When the plant is not operating, it may become the target of intruders who could trigger an environmental breach.

Maintain building temperature at a safe level to prevent damage to sprinkler piping and process piping.
During the winter months or longer periods of cold, it is important to maintain minimum temperatures in the buildings to prevent water pipes from freezing. Burst pipes could result in major leakages since the plant is only occupied by a core team onsite; undetected leaks could quickly result in significant damage.

Ensure that utilities such as electricity, natural gas, and water remain in service.
Continuous provision of utilities is important in order to supply key equipment such as heating, lighting, monitoring systems (e.g. for leak detection or temperature control), emergency response, etc.

Discuss the situation with Environmental Health & Safety authorities and, if required by law, inform your external inspector or controller.
Develop response plans considering the minimum staffing levels on site. If there is only a core team on site, the EHS department needs to consider this in its documented pre-emergency and response plans.

Monitor external risks 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.
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.

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

Post-crisis review.
Review your business continuity plan and all measures and procedures for lessons learned to prepare for potential future forced shut-downs.

To learn more, please reach out to your AXA XL Casualty Risk Consulting contact.
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