

LESSONS TO BE LEARNED

Generated from Actual Incidents - Written by EHSO

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Type of Incident: Fire Alarm Avoided by Quick Thinking Researcher

What Happened: Recently, a researcher had collected biohazardous waste, placed the red bag waste into a secondary container and loaded the bags into a steam sterilizer/autoclave. The autoclave door was closed and the sterilizer program was initiated. As the sterilizer filled with hot steam and pressure, a large leak became evident around the sealed door. The researcher immediately aborted the program but due to a delay in the programming, the sterilizer continued to release a considerable amount steam into the room. The hot steam condensed on the surfaces in the room making everything very wet. The researcher had immediately called the emergency safety number (6-SAFE) to ask for assistance. The steam leak eventually subsided and the sterilizer program stopped. If the researcher had not remained at the autoclave as the cycle began, the continuous leak of hot steam would have set off the fire sprinkler head and fire alarm. The room would have quickly flooded and caused considerable water damage to the laboratory and to rooms located on floors below the facility. No injuries occurred during the incident.

Immediate Cause: The steam leak was caused by a worn out gasket that lines the door to the chamber of the autoclave.

Root Causes: The gasket failure of the sterilizer was the result of a lack of thorough inspection and routine servicing and testing of the autoclave.

Corrective Actions:

1. For preventative maintenance call your service representative to inspect and test the autoclave on an annual basis.
2. Have appropriate personal protective equipment available for loading and unloading an autoclave.
3. Provide documented training to individuals who will be using the autoclave include operation of the autoclave, package of waste, proper loading and unloading techniques and how to stop an autoclave in case of an emergency.
4. Know what items can and cannot be safely autoclaved.
5. Become familiar with quality control measures of autoclave performance such as the use of physical, chemical and biological indicators.
6. Know what actions to take in case of a medical emergency (call 5-5555 UIC Police).