

## METAL / NONMETAL Serious Accident Alert

**Surface – Cement Kiln – Liquid/Gas Inundation** - On June 3, 2019, a railcar exploded when incompatible materials stored inside the car reacted and approximately 20,000 gallons of liquid waste derived fuel – fuel derived from hazardous waste – spewed from the railcar for 34 seconds. The eruption sent waste fuel several hundred feet into the air and ripped the manway hatch from the railcar. The hatch came to rest approximately 370 yards from the railcar. Droplets of waste fuel traveled more than 1/3 of a mile, landing on buildings, structures and vehicles near the facility. Agitators in several tanks were not maintained in functional condition. The facility was blending and storing incoming loads of waste fuel in railcars. A system of analysis was not in place to ensure compatibility of the blended waste fuel.



### BEST PRACTICES

- Evaluate work processes and develop acceptance and processing procedures to eliminate and mitigate hazards.
- Use the proper container type (one that does not react with the hazardous material).
- Make sure hazardous material storage containers are located in a safe area.
- Review the uniform hazardous waste manifest and safety data sheets (SDSs) and regularly conduct chemical compatibility analyses. Don't store incompatible materials together.
- Do not reuse unwashed storage containers.
- Regularly inspect equipment for proper operation. Remove damaged containers and equipment from service.
- When handling hazardous material, use a properly designed, installed, and maintained ventilation system.
- Provide warning signs that display the nature of the hazards and the required personal protective equipment.
- Provide, use, and maintain fixed and portable gas detectors in areas where hazardous gases or vapors can accumulate.
- Train miners on chemical hazards, emergency response procedures, and material handling activities including storage, loading, unloading, and transporting. Have SDSs accessible and ensure that all employees know how to read them.



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[askmsa@dol.gov](mailto:askmsa@dol.gov)  
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