Hazardous Waste Management

Key Takeaways:
– Learning hazardous waste, explaining the importance of managing it properly, and listing the categories of hazardous waste generators.
– Understanding some actions industrial facilities use to manage hazardous waste and realizing how you can assist your company with its hazardous waste management efforts.
– Comprehending how to handle common types of hazardous waste.
– Learning how you, and other individuals with various roles and responsibilities, must respond to an unintended release of hazardous waste.

Course Description
The Environmental Protection Agency (EPA) states that “Hazardous waste is waste that is dangerous or potentially harmful to our health or the environment. Hazardous wastes can be liquids, solids, gases, or sludges. They can be discarded commercial products, like cleaning fluids or pesticides, or the by-products of manufacturing processes.”

Awareness of the dangerous side effects of hazardous waste contamination has been growing. Not too long ago, numerous industrial plants released heavy metals and unstable organic compounds directly into streams or inserted them into the earth’s subsurface through wells, spreading illness to the people living around these toxic sites.

As a result of agricultural applications, nitrates, phosphates, and synthetic organic compounds in pesticides and fertilizers made their way into streams and ground water. Then, in the atomic age, radionuclide contamination came from man-made sources, like nuclear power plants.

There are various forms of hazardous waste, such as solid, semi-solid, liquid, or gaseous forms. As well, it can include spent solvents like many pesticides and excess, discarded, or spilled chemicals.

Here’s why hazardous waste is an environmental concern: – It lasts for many years; – It never breaks down easily in the environment; – It moves through the air, water, soils, and sediments; – It moves from one organism to another. This importance was shown by the World Health Organization (WHO) and the National Cancer Institute, who estimate that 60 to 90 percent of cancers are environmentally induced by contaminates such as heavy metals and toxic chemicals. The various other chronic health effects from waste contaminants include stroke, kidney and thyroid disease, cardiovascular damage, nervous disorders, and impairment of speech, hearing, vision, and memory. Regulations on hazardous wastes now: – Force safe treatment, storage, transportation, and disposal; – Prevents pollution to restrict the generation of hazardous waste; – Restrict the amount all hazardous substance, pollutant, or contaminant released into the environment. Various treatment technologies can include: – Distillation – Stabilization – Neutralization – Incineration – Evaporation Prevent hazardous wastes creation by: – Modifying process (avoid the need for the hazardous material). – Substituting product (purchase the least toxic substance available). – Minimizing product purchase (purchase minimum quantity and in small containers initially). Waste Management Practices – Hold waste materials in their properly designated containers. – Cover chemical containers. – Label chemical containers. – Keep chemicals away from the weather. – Learn the guidelines for proper management, handling, and disposal of hazardous wastes or “unknowns”. – Notify your company’s Environmental or Health, Fire, & Safety Departments about all chemical spills. – Get rid of aerosol cans in ways approved by state or local regulations (these normally incorporate provisions for capturing and safe disposal of any remaining container contents and disposal of the empty aerosol cans). – Place drained used oil filters in a marked container. – Dispose of used oil in bulk used oil containers. – Do not leave lids off of oil funnels, solvent containers, or other waste containers. – Do not place full or partially full aerosol cans in trash containers. – Avoid placing waste streams in improper, unlabeled containers. – Never store chemical containers on bare ground. – Always store chemical containers indoors and on paved surfaces. – Restrict the

spill release reporting guidelines for chemical releases and spills. – If you have waste management issues and questions, contact your company’s Environmental Department personnel for direction. Precautions – Procedures for proper response to an accidental spill or release should be in place. – Emergency response supplies and equipment should be on hand. – Waste receptacles should be clearly identified for the types of waste. When you discover a hazardous material spill or release at work: – Report it to your manager, supervisor, building administrator, or company environmental organization as soon as possible. – Right away, call your company’s emergency number if it is life threatening or immediately hazardous.