

Tipping Floor Safety at American Ref-Fuel

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Introduction

Across the industry the tipping floor is considered to be one of the most hazardous areas of the facility. Just the fact that there may be twenty different waste hauling drivers with their own agenda in one area can lead to potential hazards. Across the industry there have been driver deaths that have occurred due to the drivers wandering away from their trucks or re-entering the floor without notifying the tipping floor attendants.

When coordinating the municipal solid waste (MSW) deliveries, it stands to reason that well-defined procedures must be understood, implemented and enforced to ensure a safe and smooth truck delivery operation. This steady and smooth movement of trucks is needed to help alleviate further congestion during peak delivery hours.

It takes an effort by all parties involved with the tipping floor to minimize the hazards and to help keep the operation running smoothly and efficiently.

Each American Ref-Fuel Company (ARC) facility is required to develop and implement its own site specific tipping floor plan. The company has a document that provides a comprehensive set of guidelines for developing these site-specific tipping floor plans.

The site-specific plan should assist in providing safe, efficient truck traffic to and from the tipping floor, facilitate safe and efficient waste unloading, ensure safe access for personnel entering the tipping floor, and communicate potential hazards associated with tipping floor operations. The plan should also standardize procedures and personal protective equipment (PPE) requirements for working on the tipping floor, protect the physical plant/equipment from accidents, and ensure safe removal of unacceptable/hazardous waste found in the delivered waste.

Tipping Floor Description/Management

American Ref-Fuel operates six waste-to energy facilities utilizing various technologies and design features. Although the tipping floor layouts vary from plant to plant, the activities and associated hazards are very similar.

Factors affecting operation of a tipping floor include throughput capacity of the facility, truck quantity and size, traffic flow, queuing before and after the weight scale, lighting, ventilation, floor drainage, state and local permit requirements and other tipping floor activities.

Another factor that affects the operation on the tipping floor are state permit requirements for the random inspection of MSW truckloads. This process typically requires dumping the MSW on the tipping floor, spreading the MSW by use of the front-end loader and visually inspecting the material. The acceptable MSW is then pushed into the pit, stacked on the floor or fed to the operation's feed system with the front-end loader.

State and local permit requirements also affect tipping floor enclosures, storage, fugitive emissions and unacceptable material to be removed.

Tipping Floor Safety - Potential Hazards

Truck traffic coordination is of the highest priority in order to ensure the safety of all personnel that may be on the tipping floor at any given time. The floor attendant and loader operators must continually monitor the floor for personnel and unauthorized pedestrians. The tipping floor operator(s) must authorize entry by any personnel to ensure the safety of those personnel.

Only trained and certified personnel should operate heavy equipment. All equipment must be inspected each shift and operated in a safe, deliberate