2016 Safety Award Entry

Best Safety Innovation

Montgomery County Solid Waste District Transfer and Recycling Facility

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SWANA member number 933805

Montgomery County Solid Waste Transfer Station Safety Rules and Tipping Floor Policy

Montgomery County, Ohio

Population 550,000
Executive Summary

Montgomery County Environmental Services manages the Montgomery County Solid Waste District Transfer Station and Recycling Facility (formerly the South Transfer Station) located in Moraine, Ohio. The department formerly managed two facilities, one called the South Transfer Station and one called the North Transfer Station. On December 27, 2014 the North Transfer Station was permanently closed and all operations were consolidated at the South Transfer Station, now renamed the Montgomery County Solid Waste District Transfer and Recycling Facility.

To prepare for the north facility closure, several modifications were completed to accommodate the increased traffic flow and volume at the Montgomery County Solid Waste District Transfer Station and Recycling Facility. These modifications included adding a 40,000-square-foot public tipping area, two extra load-out tunnels equipped with tampers, and complete rehabilitation of the 60,000-square-foot commercial tipping area. With the increased truck traffic and daily transactions (700-1,000 vehicles per day) and more than 500,000 tons of solid waste transferred per year, we deemed it necessary to create a written tipping floor policy.
Judging Criteria (each question answered in order)

1. Implementation Date: January 2015 – Montgomery County was seeking to address spacing between vehicles, speeding issues on tipping floor, drivers dumping in correct location of tipping floor away from heavy equipment (two to three Wheel Loaders on tipping floor at all times), and communication between traffic directors, drivers and equipment operators.

2. Incidents on tipping floor from 2012 through 2015 and improvements made each year.

3. Our goal is to show year over year improvement in our safety results, eventually attaining zero incidents on the tip floor.

4. January 2015 thru February 2015, during slow months communicated to all waste hauler’s management teams and had them train their drivers on the policy and trained all Montgomery County personnel on the policy and enforcement of said policy. Montgomery County employees watch for violations and fill out said violations (form attached) and turn them into the supervisor on duty. Supervisor is them responsible for contacting driver’s supervisor and discussing violation with supervisor so he can coach driver to change behavior. In addition, each supervisor is required to spend time on the tipping floor doing observations. They listen on the two-way radio for communication between traffic directors and equipment operators. They also look for tipping floor violations, e.g. spacing between vehicles, proper PPE utilized, drivers staying within safe zone (5 feet) of their vehicle, etc.
5. Summary of Incidents last 4 years - Solid Waste Tipping Floor Incident Summary

**2012**
1. 3/23/2012- Property Damage- Loader struck John Deer gator tearing plastic window.
2. 12/6/2012- Property Damage- Rumpke driver collided with County trailer.

**2013**  **No incidents on tipping floor for 2013**

**2014**
1. 2/24/2014- Citizen Property & Injury- Loader Operator backed into a pickup which was moved and hit citizen knocking him to the ground.
2. 5/21/2014- Property Damage- Employee backed loader into Rumpke truck.
3. 6/6/2014- Rumpke Driver Injury- Employee was pushing trash and struck Rumpke Driver with pipe that was in pile.

**2015**
1. 8/10/2015- Property Damage- Employee backed loader into City of Oakwood truck.

**2016**  **No incidents on tipping floor as of 3/29/2016**

6. Montgomery County Transfer Station and Recycling Facility is a very busy place and handles 700-1000 vehicles each day, with 60% of the vehicles driven by public customers with limited or no experience inside our facility. Our heavy equipment operators load 80-100 transfer trailers each day, and more than 2,000 tons of incoming solid waste is accepted each day. Below are some pictures of the tipping floor with trucks and equipment moving around and the traffic director talking via two-way radio to the equipment operators.
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Driver Responsibilities:

1. Drivers and helpers must wear proper personal protective equipment: safety shoes, high visibility vest/clothing, eye protection, and work gloves.
2. Drivers/Montgomery County Employees are not to use cell phones or two-way radios while driving on the transfer stations’ property, especially while backing. (Driver is required to blow horn as he prepares his backing maneuver to dump their load.)
3. Drivers must follow instructions given to them by facility employees.
4. Only one person is allowed out of the truck on the Commercial tipping floor.
5. Personnel must stay within five feet of their vehicle when outside of their vehicle on the tipping floor.
6. All vehicles must comply with the posted traffic signs, with special attention to the tipping floor speed limit of 5 MPH.
7. All vehicles must stop prior to entering the building.
8. All vehicles must come to a full stop before proceeding onto the scales.
9. All commercial vehicles must come to a slow easy stop to avoid rocking the scale.
10. Drivers must dump where instructed.
11. Scavenging is prohibited.
12. Self-contained roll-off boxes can only be turned around in a designated area. (In Roll-off turnaround lot near scale entrance)
13. Do not bang roll-off boxes against the tipping floor.
14. Do not open or close turnbuckles unless on the tipping floor.
15. Lower bed and secure tailgate before exiting tipping floor.
16. Prior to leaving tipping floor, drivers must thoroughly clean off vehicle.

Be certain appropriate distances are maintained between vehicles when discharging loads. The following can be used as a guideline for the clearances needed on each side of the truck:

<table>
<thead>
<tr>
<th>Full eject and private vehicles</th>
<th>10 feet/3meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tilt frame/partial eject vehicles</td>
<td>15 feet/5 meters</td>
</tr>
<tr>
<td>End Dump/Frameless Trailers</td>
<td>1 times the length of Unit plus 10 ft.</td>
</tr>
</tbody>
</table>
Tipping Floor Procedures

Drivers

Drivers must wear proper personal protective equipment: safety shoes, hardhat, high visibility vest/clothing, eye protection and work gloves.

Drivers must follow operator’s instructions at all times and drivers will be directed to maintain the following safe distances between vehicles when discharging loads on the tipping floor:

- A minimum of 10 feet shall be maintained on each side of Rear End Load vehicles (full eject body)
- A minimum of 10 feet shall be maintained on each side of a Side Loader (full eject body)
- A minimum of 10 feet shall be maintained on each side of a Front End Loader (full eject body)
- A minimum of 15 feet shall be maintained on each side of a Side Loader (tilt body)
- A minimum of 15 feet shall be maintained on each side of a Front End Loader (Half-pack/tilt body)
- A minimum of 15 feet shall be maintained on each side of Roll off vehicles
- A minimum of 25 – 40 feet shall be maintained on each side of End Dump Trailers

Drivers will be directed to open their tailgate while in a zone as far in front of the trash pile as practicable and closing of the tailgate will occur in the same zone.

Only one person can exit the truck on the tipping floor (except for hand unloads). The driver who exits the vehicle must stay within 5 feet of the vehicle. When closing or opening swinging doors, the driver is the stay with the moving door until it is properly secured. Vehicles are not to be left unattended. Conforming safety chains must be used to hold open roll-off container doors while unloading. Use of bungee cords, wire, ropes, etc. will not be permitted.

Drivers/haulers will only back into an area to dump prepared by a heavy equipment operator only after instructed by the operator or traffic coordinator. The driver is responsible to be certain the truck is parked on a firm and level surface before disposal.

A ten-foot safe zone must be maintained between heavy equipment and trucks working on the tipping floor.

Never walk behind or in front of another vehicle unless you have made eye contact and received confirmation of intended movement using hand signals with the operator of the vehicle/equipment.
Make certain the area has sufficient clearance for the truck to enter, exit and tip.

Tailgates, bodies, and hoists should be lowered before exiting the building. Equipment should not be moved around with the tailgates, doors, hoist, or bodies’ open or in the extended position.

No one is allowed under a raised tailgate without proper block out, a t-bar or similar device. Never walk under or allow anyone else to walk under a raised tailgate for any reason. To help ensure no one walks under the tailgate, only open the tailgate approximately 2 feet when cleaning the tailgate seal.

If a load being dumped is frozen or jammed, drivers must ask the floor spotter for assistance from the heavy equipment operator. The driver must stay inside the truck until he/she is signaled by the floor spotter or by the horn from the equipment operator that the load is free and clear of the vehicle.

If driver needs to perform a truck clean out; ask the floor spotter for guidance to the designated clean out area.

Traffic Coordinator/Spotter

- Promote safe and orderly traffic flow into and out of the site, into and out of the queuing/staging area and into and out of the transfer building area.
- Be in position to both see the immediate hazard area and be seen by the driver. If the Traffic Coordinator must change positions during the maneuver, signal the driver to stop, move to the new position before the maneuver is continued, and maintain visual contact with the driver.
- Is in radio communication with floor spotter, Scale House, Heavy Equipment, Transfer Driver and site management.
- Prohibited are all Traffic Coordinators and/or Spotters as well as any other non-vehicle/operating personnel from being present on the tipping area of the transfer station.
- Whenever feasible position one’s self in a safe haven or buffer space that is designed to separate you and others from traffic such as behind a concrete barrier, booth or designated pedestrian zone.
- Help enforce the PPE policy with third party vendors

Safety and Operational Rules

We are required to adhere to all Federal, State and Local regulations and to provide a safe, healthy and sanitary workplace. Each of us has the responsibility to make the safety of our co-workers, our customers and the general public a primary concern; this objective is fundamental to the Montgomery County Transfer Station and its employee’s well-being, as well as the efficient operation of our facility.
It is imperative that all persons entering the site know, understand and abide by these safety rules (This listing is not intended to be all-inclusive):

- Hardhat, high visibility clothes/reflective safety vests, safety shoes and eye protection are to be worn when outside the vehicle.
- All vehicles must comply with the posted traffic signs, with special attention to the posted speed limit of 5 MPH.
- All vehicles must come to a full stop before proceeding onto the scales.
- A minimum distance of ten (10) feet must be maintained between all personnel, trucks, rolling stock and heavy equipment within the facility.
- All commercial solid waste vehicles entering the facility shall be equipped with external audible back-up alarms; alarm must sound whenever the machine is in reverse.
- **In addition to the audible back-up alarm, driver is to blow horn as he prepares his backing maneuver to dump their load.**
- Loads must be tarped prior to entering the facility. Tarps are to be removed in designated remove tarp areas only. Under no circumstances are tarps to be removed before entering the facility.
- Drivers preparing to enter tipping areas must await directions from the Traffic Coordinator and/or Heavy Equipment Operator. Driver is to maintain eye contact with operating personnel.
- Passengers and Helpers must remain in the cab of the vehicle. Drivers must stay within six feet of their vehicle when outside of their vehicle.
- Riding outside of the vehicle or standing on the vehicle rear step is forbidden when vehicle is moving on site.
- Cleaning out from behind the blade of a vehicle (truck cleanouts) must be done in designated clean out areas separate from the work zone.
- While dumping the load, stay clear of the back of the vehicle. Never stand under the open tailgate or raised hopper.
- Tailgates, bodies, and hoists should be lowered before exiting the building. Equipment should not be moved around with the tailgates, doors, hoist, or bodies open or in the extended position. All open top trucks must be completely empty before exiting the tipping floor.
- The backs of packer trucks and roll-off containers must be opened and closed on the tipping floor.
- Heavy Equipment Operators have the right-of-way on the tipping floor. All vehicles are to yield to operating machinery and pedestrians.
- A ten-foot safe zone must be maintained between heavy equipment and trucks working on the tipping floor.
- Conforming safety chains must be used to hold open roll-off container doors while unloading. Use of bungee cords, wire, ropes, etc. will not be permitted.
- **Do not pass moving vehicles.**
- All passengers must remain inside the vehicle on the commercial tipping floor. On the public tipping floor only adults are allowed out of the vehicle to assist in the unloading of the vehicle.
- Report all injuries/accidents to the Traffic Coordinator or at the scale-house.
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- Smoking is prohibited at all times while on the tipping floor.
- Horseplay, scavenging or picking through the loads is strictly forbidden.
- Firearms, and/or weapons of any type are not allowed on the property for any reason.
- The use of intoxicating beverages or any other restricted substance on the facility is strictly prohibited.
- All visitors must check in at the main office.
- Drivers are not to use cell phones or two-way radios while driving on the transfer stations’ property, especially during a backing maneuver.
- In the event a pedestrian needs to enter the tipping area on foot, all movement of equipment and vehicles must stop before and during this process. Movement cannot resume until the person(s) on foot has communicated to the vehicle operator(s) that the ground is clear.

Tractor Trailer Drivers and Tunnel Safety

- Hardhat, high visibility clothes/reflective safety vests, safety shoes and eye protection are to be worn when outside the vehicle.
- Loader and crane operators are to use signals to ensure MSW is not pushed into a tunnel where a truck is not staged.
- Loader operators must keep MSW at least 3-5 feet back from the edge of the pit opening to prevent MSW from falling into tunnel and possibly injure an employee or damage a tractor trailer.

Thank you for your cooperation and commitment to safety.