Toolbox Talks

TOPIC: Inspecting or Working in an Asphalt Dryer

Key safety points for discussion:

A dryer at an asphalt plant is used to dry aggregates, and it mechanically cleans aggregates of fine dust. At one end of the dryer there is a natural gas or diesel fired burner which throws a flame within the center of the dryer as it rotates to two-thirds the length of the dryer, to allow for drying of aggregates. Typically, at the other end of the dryer an exhaust of heat, water vapor, and dust are vented through to a primary collector and baghouse. The dryer is made of hard gauge steel, and consists of sections of various styles of flights to move the aggregates through. Have a hygienist's assessment for the dryer confined space rating.

Dryer safety

- Don't enter an area where you suspect a gas leak. If you are in such an area, leave immediately! Don't allow others to enter the area.
- Do not try to judge for yourself the level of danger of a gas leak by trying to determine if one smell of gas is weak or strong. All gas leaks pose a risk.
- Wear and have the appropriate PPE required
- Make sure all access doors are open for ventilation
- Aggregate feed conveyor must be clean and locked out before entry
- Ensure the dryer has cooled before entry
- Have ample lighting available for the work space
- Ensure someone is spotting your entry
- A Confined Space Assessment and testing of atmosphere of harmful gases is required prior to entry. Typically a dryer has a Low to Moderate hazard rating. Fill out a confined space entry permit and have a copy for workers to see. Ventilate the space and test the atmosphere no more than 20 minutes prior to entry. Silica dust may be present, and exhaust ventilation will remove the finest particulate that is of greatest concern. Keep monitoring the air and keep ventilating the space as staff is working in the space. Do not use compressed air to remove dust, wash with water or a vacuum for dust suppression or removal
- Fall protection is required when working on the outside of the dryer. Walking into a dryer is awkward because of the uneven surface caused by the flights, so there is a potential of a trip hazards with the flights in the dryer
- Make sure you lock out all trunnion drive motors and blower motor, and any other lockouts specifically to the type of dryer. Close off gas from the main manual valve and the safety shutoff valve, and purge the burner feed line of gas (if possible). Install gate valve lockouts. If a multiple fuel selector for the burner, select to an alternate or auxiliary setting.
- Is all the equipment de-energized?

Did you know…?

- If you are wearing a respirator, you need to have an orientation and a respirator fit test
- That cutting and welding in a dryer can create a deficiency of oxygen in the atmosphere. Ensure there is ventilation, and that you have the proper equipment. The work environment can change depending on the type of work being done, so have a gas

monitoring device available and working in the dryer at all times. A hazard can develop after entry, or may be generated by the work process inside the space. Thee classification can be raised to a Moderate or High Hazard atmosphere and does require ventilation, especially if cutting, torching, and welding.

Summary

1. Is it safe to enter a confined space without a hygienist's rating of the confined space?

No. You need to have a rating of the work space in order to identify the hazard rating of the work space

2. What is the recommended time of ventilation prior to entry of a work space?

20 minutes.

3. Are there tripping hazards in the dryer?

Yes, the various sections of flights that move the aggregate during operations.