

## **Modification Environmental Assessment**

### *PA 451, Part 111, Section 324.11123(2)*

MDWTP facility is designed and operated in order to minimize the potential for a release, fire, or explosion. The operation is intended to aid in the clean-up of the environment by providing safe, compliant, and secure storage, treatment, and disposal options. Michigan Disposal's Waste Treatment Plant (MDWTP) has requested the following modifications to the facility permit:

- Debris immobilization by sealing and alternative macroencapsulation jackets
- Treatment outside of treatment tanks
- Treatment of (D003) reactive sulfide containing waste
- Addition of F020-F023, F026-F028, K043, and K099 waste codes
- Reevaluation of the maximum design throughput capacity of treatment tanks
- Reevaluation of the maximum design capacity of container storage areas and the expansion of the South East Container Storage Area (SECSA)

The requested changes are similar to the current activities at the facility. The information provided in attachment B.4 Environmental Assessment is also applicable to the proposed changes.

Because the existing facility is located in the confines of the 420-acre Wayne Disposal Site #2 Landfill property, in the unlikely event of a failure, the proposed changes should not have any increased impact on the environment than the current operation.

The risk and impact of accident during the transportation of hazardous waste to the treatment, storage, or disposal facility is unchanged, if not better. Changes requested should only impact the facility to which generators are sending their waste, and as a result, the number of vehicles transporting hazardous waste to treatment, storage, or disposal facilities is not increasing. MDWTP is not altering its scheduling requirements or the traffic flow. The expansion of the container storage areas and the increase in the throughput capacity will allow MDWTP to receive waste that may otherwise be parked at various public locations, minimizing the potential for an incident that may impact the public.

Requested changes should not have any impact to the natural environment and ecology; public health and safety; scenic, historic, cultural, and recreational values; water and air quality; and wild life. Because the proposed changes are consistent with current operations at the facility they will not have any impact on the Van Buren Township in terms of health, safety, cost, and consistency with local planning and existing development. The following provides potential failures that occur and the controls in place to minimize environmental impacts in the event of a failure.

#### *Immobilization*

Failure to adequately immobilize waste being treated could result in contaminated leaching into the landfill leachate. Waste from MDWTP is primarily disposed of at Wayne Disposal Inc., a Subtitle C landfill designed to prevent a release to the environment. Leachate from the landfill extracted and treated by means of WDI's waste water pre-treatment plant before being discharged to the POTW.

### *Treatment Outside of Treatment Tanks*

MDWTP has proposed treatment of certain waste streams outside of the waste treatment tanks. This may be necessary for immobilization treatment technologies or pilot testing. Waste streams requiring air pollution controls would be restricted to treatment in the treatment tanks, or East or West Treatment Bay, in order to minimize the potential for air quality or track out concerns. Container storage areas are equipped with appropriate secondary containment, and as a result any potential release to the ground would be contained.

### *Treatment of (D003) reactive sulfide containing waste*

Treatment of reactive sulfide waste is proposed to occur in the waste treatment tanks and will be performed to minimize the potential for an adverse reaction. When sulfide bearing waste comes in contact with an acidic pH material, the waste has the potential to generate hydrogen sulfide gas. As a result, sulfide bearing waste will be deactivated in batches which have a neutral or caustic pH and are completed using appropriate air pollution controls. A failure in the controls would result in MDWTP ceasing processing activities and enclosing the building until such time that the controls are restored.

### *Addition of F020-F023, F026-F028, K043, and K099 waste codes*

Media bearing the requested waste codes primarily consists of remedial clean-up waste. MDWTP is requesting the ability to receive these waste codes in order to assist government and private companies in their clean-up efforts. All waste accepted will meet the applicable land disposal restriction for the constituents that apply to these waste codes. MDWTP is designed to safely and securely manage such materials with good engineering and processing controls that minimize the possibility of a release to the environment. Because MDWTP is located in the confines of WDI, any impacts from failure of these controls would be contained within the facility boundary and be detected as part of the onsite environmental monitoring program.

### *Reevaluation of the maximum design throughput capacity of treatment tanks.*

MDWTP is requesting the ability to change the design throughput capacity of the treatment tanks to an annual number in order to accommodate governmental or private industry needs for rapid clean up response activities. The change does not increase the volume of waste in the treatment building at any one time, and as a result there will not be any additional environmental impacts. There is also no additional potential for failure of the system.

### *Reevaluation of the maximum design capacity of container storage areas and the expansion of the South East Container Storage Area.*

The requested changes to the design capacity of the existing container storage area changes the container storage volumes in order to help government and private industries to remove their waste in a timely and compliant manner. Good engineering and processing controls (such as secondary containment structures and container compatibility segregation) allow MDWTP to store the waste in a manner that minimizes the potential for a release. A container failure would be captured in the adequately designed secondary containment structure. In the event of a fire, the location of the container storage areas, small volume in the container, and the onsite emergency equipment minimize the potential of exposure to the public.

