CRITERION 5:

“the plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents”
415 ILCS 5/39.2(a)(v)

CRITERION 5:
INCIDENT PREVENTION AND RESPONSE PLAN

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(v), requires that an applicant for a transfer station siting demonstrate that the plan of operations for the facility is designed to minimize the danger to the surrounding area from fires, spills, or other operational accidents. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC West DuPage Recycling and Transfer Station will operate with minimal danger to the surrounding areas. It also explains the facility's incident prevention and response plan.

Prepared for:

LAKESHORE RECYCLING SYSTEMS, LLC

WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

5.0 INTRODUCTION

The West DuPage Recycling and Transfer Station (West DuPage RTS) located at 1655 Powis Road, West Chicago, DuPage County, Illinois includes numerous design and operational features, which will minimize the danger to the surrounding area from fire, spills, or other operational accidents. These design and operational features are detailed in Criterion 2 of this Application for Local Siting Approval.

Additionally, an incident prevention and response plan (Plan), described below, has been prepared to specifically address fire, spill, and accident prevention and response for West DuPage RTS. The Plan is designed with two focuses. First, the Plan presents the actions to be taken to prevent fires, spills, and other operation accidents from occurring. Second, the Plan presents an organized and coordinated course of action to be taken in responding to potential fires, spills, or other operational accidents at West DuPage RTS, if any occur.

5.1 SAFETY OFFICER

West DuPage RTS will have a designated safety officer. The facility manager (or duly designated equipment operator) will serve as the safety officer to ensure an identified safety officer is on-site at all times during operation. The safety officer will be responsible for implementing procedures to prevent fires, spills, and other operational accidents, and to coordinate responses to incidents or emergencies, if any were to occur. Responses will be consistent with the Plan and with any government response to the incident, such as the police and fire department.

5.2 INCIDENT PREVENTION

5.2.1 FIRE PREVENTION AND CONTROL

West DuPage RTS has been designed to prevent fires from occurring and, if any fires should ignite, to minimize the impact on the site and prevent any impacts to the surrounding areas. The municipal solid waste (MSW) and single-stream recyclables (SSR) transfer building will be a pre-engineered metal building and be equipped with a dry pipe fire suppression system. All of the existing and proposed buildings at the West DuPage RTS are/will be equipped with wet or dry pipe fire suppression systems as noted on Figure 5-1. A water source is located on-site (fed from a water main that loops through the site as shown on Drawing C108 in Criterion 2) and seven hydrants, including one just southwest of the MSW and SSR transfer building. The location of all of the hydrants are shown on Figure 5-1. Access has been designed to accommodate emergency vehicles, including fire trucks, as also shown on Figure 5-1.

A Fire Rover is currently located north of the construction or demolition debris (C&D) tipping building (location shown on Figure 5-1), which provides additional fire protection for the C&D tipping building. The Fire Rover combines twenty-four hours per day, seven days per week remote thermal monitoring, and an automated fire-fighting foam system that can be released as quickly if a spike in temperature in the building is detected [https://firerover.com/demo/]. The Fire Rover is used at multiple Lakeshore Recycling Systems, LLC (LRS) facilities, and has been highly effective since companywide rollout in 2018.

LRS indicated that the system has identified multiple "flare up" fires in the pile at other facilities and a few of those "flare ups" required suppression. Information from Fire Rover indicates that the maximum piping length from the unit to the end point is 300 feet, but the optimal length of piping is 150–200 feet. This system will remain in place for the C&D tipping building.

In addition to the fire hydrants for use by the fire protection district, on-site fire equipment will include:

- Fire extinguishers in each piece of heavy equipment, the transfer station building, and the scale house.
- A water truck with a pressurized water supply and hose reel will be available on-site.
- A second Fire Rover located east of the MSW and SSR transfer building (location shown on Figure 5-1), which will provide additional fire protection for the MSW and SSR transfer building. As discussed above, the Fire Rover combines twenty-four hours per day, seven days per week remote thermal monitoring and an automated fire-fighting foam system that can be released quickly if a spike in temperature in the building is detected.

The following actions will be taken regularly by West DuPage RTS personnel to prevent fires:

- The equipment operators will be trained to be alert for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads.
- Equipment used to move waste will be routinely cleaned through the use of high-pressure water. The high-pressure water will remove combustible waste and caked material, which can cause equipment overheating and increase fire potential.
- Smoking will not be permitted near waste management areas.

Fires in waste transfer stations do not frequently occur. When they do occur, they are usually caused by a smoldering load of waste being unloaded on the tipping floor or combustible papers/cardboard coming into contact with an ignition source.

All equipment operators and other personnel who are routinely inside the transfer building will be given instruction and training in initial fire response and control procedures. The training will include identifying all potential fire hazards on the site, learning the procedures to prevent fires from occurring, learning the proper methods to put out any fires that might occur, and learning how to use all fire equipment on-site. Personnel will also be trained to immediately contact the safety officer who will assess the need for local outside emergency response services.

If a "hot load" enters West DuPage RTS, it will be directed to the concrete area east of the transfer station building where the load can be contained and managed (see Figure 5-1). This location is readily accessible to waste hauling and emergency vehicles, yet far enough from the other site buildings that the potential for spread of fire will be minimized.

Incoming collection trucks recognized with hot loads can bypass the scale house and approach the designated area, which is the concrete area outside the transfer building where trucks begin to back into the building; alternatively, hot loads that have reached the scale can proceed directly to the designated area. Smoldering wastes located in the transfer building can be pushed directly to the designated area. Water will be available from water truck. In the unlikely event a transfer trailer is identified with a hot load, the trailer can be positioned in the hot load containment area, and the trailer disengaged from the tractor.

5.2.2 SPILL PREVENTION AND CONTROL

West DuPage RTS will not accept liquid waste at the MSW and SSR transfer building. The only spills that could occur at the MSW and SSR transfer building would be residual liquid from waste materials unloaded on the tipping floor, minor fluid leakage from equipment/vehicles, and refueling activities.

Some liquids may be present in the waste materials unloaded on the tipping floor of the MSW and SSR transfer building. These liquids would generally be small amounts and would normally be absorbed by the dry solid waste materials as the material is pushed along the tipping floor for loading onto the transfer trucks. Liquid that accumulates on the tipping floor or in the loading pit will be directed through an oil-water separator and then discharged into the sanitary sewer (see Drawing C302). No liquid from the tipping floor or the loading pit will be discharged to the stormwater system.

Hydro excavation wastes will be accepted at the site and managed at the hydro excavation waste building. Wastes will only be unloaded in the hydro excavation waste building, which will be fully contained by a perimeter concrete wall. Personnel will trained to remain with their vehicle at all times when the wastes are being unloaded into the mixing pits. Spill kits, including absorbent materials and storm drain barriers/seals, will be maintained at the hydro excavation waste building to contain any spill. Solidification material will also routinely be available to help contain and/or clean up any spill. LRS also has multiple regenerative air street sweepers on-site to help clean up any residual material.

Any free liquids from spills or equipment/vehicle leakage will be contained and removed with absorbent materials. The used absorbent materials will be handled and disposed according to the type of liquid material that was spilled. If any solid waste materials are significantly affected by a liquid spill, after they are identified, they will be segregated from other waste materials and managed according to the waste type.

West DuPage RTS has fuel tanks to refuel on-site equipment. The tanks are equipped with secondary containment and automatic shutoff controls. Personnel are trained to remain with their vehicle at all times when the tanks are being filled or when equipment is being fueled. A spill prevention control and countermeasure plan detailing these and other procedures has been prepared, and is implemented in accordance with the applicable regulations.

5.2.3 ACCIDENT PREVENTION AND CONTROL

Only trained and authorized employees will be allowed to operate any heavy equipment on-site. All employees working in the waste handling and transfer buildings will have received training on the equipment in the building and will receive periodic refresher instruction.

All employees will be provided with the appropriate personal protective equipment based on the work being performed. All employees will be required to wear the personal protective equipment assigned to them while they are working on-site, which will minimally include hard hats, steel-toed boots, and long pants. Failure to comply with these requirements will result in disciplinary action.

The safety officer will be knowledgeable of the proper operational accident prevention and site safety programs**.** The safety officer will ensure that all personnel are properly trained, and are operating the transfer station in accordance with the required standards.

5.2.4 TRAINING PROGRAM

West DuPage RTS is designed to ensure a safe work environment for all employees as well as those people using the site. All employees will be given training in safe operating procedures for all equipment, the use of the appropriate personal protective equipment, identification of potential hazards, and methods to avoid those hazards and instruction in handling any potential emergencies that might arise.

New employees will receive a comprehensive overview of all aspects of fire, spill, and accident prevention for transfer station operations, focusing on information that is necessary to enable them to perform their duties safely. Initial training subject matter will include applicable requirements found at the facility, and other plans such as the stormwater pollution prevention plan.

Safety meetings will be scheduled and conducted for all employees at least once per month. If a regular monthly meeting is canceled, it will be rescheduled or combined with the scheduled training the next month. Training sessions will be scheduled to allow facility operations to continue uninterrupted. Records of personnel attending each training session, and the topics covered, will be maintained at West DuPage RTS. Topics for monthly training may vary, but will include the following:

- Equipment safety;
- Personal protective equipment;
- Fire protection, prevention, and evacuation;
- Use and limitation of fire-fighting methods;
- Spill prevention and control;
- Emergency response;
- Litter control and windblown waste pick-up; and
- Waste screening and prohibited waste management.

5.3 INCIDENT RESPONSE

5.3.1 RESPONSE PROCEDURES

In the case of any incident on-site (i.e., fire, spill, or other operational accident), immediate assessment of the possible hazard(s) to public health, safety, or the environment will be made by the safety officer. West DuPage RTS personnel will respond as directed by the safety officer. Immediate action by on-site personnel will concentrate on preventing the spread of any fire/explosion/spill/leak situation that occurs. Immediate emergency medical attention will be provided to injured personnel. In the case of a fire or explosion, any possible sources of ignition will be removed from the incident area, provided this can be done without risk to personnel. Vehicular traffic will be suspended/redirected, and work ceased until the fire or incident can be safely contained and controlled.

If the site has a fire and/or explosion, spill or release, or other incident that presents a possible threat to public health, safety, or the environment, the safety officer will contact local authorities (police/fire department) in order to inform them of the situation and request assistance, as necessary.

In the event of a physical injury, the safety officer will quickly assess the situation for the need for outside assistance (i.e., ambulance). Temporary medical assistance will be administered as necessary for injuries. The safety officer (at least) will be qualified to provide first aid and cardiopulmonary resuscitation. The injured person will be transported to the closest medical care site, commensurate with the level of injury.

An internal communication system consisting of mobile phones will be available at the site for alerting personnel in the event of an emergency. This system will provide site personnel with immediate emergency notification capabilities, and the opportunity to receive necessary instructions in the event of an incident.

5.3.2 ADDITIONAL RESPONSE PROCEDURES IN THE EVENT OF A FIRE

Site personnel will take the following actions if a fire is discovered:

- Contact the local fire department by calling 911.
- Alert other site personnel.
- Assess extent of fire, possibilities for the fire to spread, and alternatives for extinguishing the fire.
- If it appears that the fire can be safely fought with available fire-fighting devices until arrival of the local fire department, attempt to contain or extinguish the fire.

- Upon arrival of local fire department personnel, direct them to the fire and provide assistance as appropriate.
- No attempt will be made to fight the fire without adequate personnel or personal protective equipment. Site personnel will be familiar with the use and limitations of fire-fighting equipment available on-site.

Firefighting methods for burning solid waste include smothering the waste, separating burning material from other waste, or spraying with water. Small fires might be controlled with hand-held extinguishers. A water truck with a pressurized water supply and hose reel will be available on-site.

If a fire occurs on a vehicle or piece of equipment, the equipment operator will bring the vehicle or equipment to a safe stop. If safety of personnel will allow, the vehicle will be parked away from fuel supplies, uncovered solid wastes, and other vehicles. The engine will be shut off, and the brake engaged to prevent movement of the vehicle or piece of equipment.

Portable fire extinguishers will be provided on all mobile equipment. The fire extinguishers will be type ABC, which are suitable for fighting combustible (A), flammable liquid and gas (B), and electrical (C) fires. The fire extinguishers will also be located within the buildings. Each extinguisher will be routinely inspected and recharged as necessary. A qualified service company will perform these inspections, and all extinguishers will display a current inspection tag. Inspection and recharging will be performed following each use.

5.3.3 WEST CHICAGO FIRE PROTECTION DISTRICT NOTIFICATION

After any fire occurs, the West Chicago Fire Protection District (fire department) will be contacted. West DuPage RTS will provide to West Chicago Fire Protection District as much information as possible regarding the fire and fire-fighting efforts, as soon as possible after the fire occurs. The fire prevention and fire control procedures for the site will be revisited in the event of an occurrence of a significant fire to determine if modifications are warranted.

Tours of West DuPage RTS will be made available to the police department, the fire department, and those agencies/services that would respond to emergency situations at the site to familiarize personnel with specific operations and layout of the site, and to seek their input on preventive measures.

5.3.4 EVACUATION

The safety officer will normally determine the need for evacuation of the site and communicate the need through the radio/telephone system. Due to the existing operations at the site, the

evacuation routes are posted in the existing site buildings and will be posted in any new site buildings. When evacuation is required, the following procedures will be followed:

- Alert all personnel using the radio/telephone system.
- Shut down all mobile equipment.
- Assist site users or visitors in the evacuation process.
- Proceed to the designated "regrouping area". Once assembled, this will permit a determination and identification of any missing persons.
- Exercise judgment and use prescribed evacuation routes to exit the buildings and assemble at the designated meeting location. For immediate evacuation, the nearest doorway or opening would be the preferred escape route from the building.

5.3.5 POST-INCIDENT ACTIVITIES

Following any incident, the safety officer will:

- Make arrangements for the storage or disposal of any recovered wastes, water, or any contaminated materials resulting from the incident.
- Ensure all emergency response equipment used will be cleaned and made fit for re-use, or replaced as necessary, so that the equipment will be available when West DuPage RTS operations resume. An inspection of all equipment will take place before operations resume ensuring that each item is in proper working condition. Procedures may include recharging of fire extinguishers, replacement of personal protective gear, restocking of disposable items, and other preparedness measures.
- Document the incident. Records will be retained on-site for the duration of the life of the transfer station and notifications/information will be filed with the appropriate agencies as required by law.

5.4 CERTIFICATION

I hereby certify that all information contained in this Application for Local Siting Approval for Criterion 5 was prepared by me or under my direct supervision, and is true and correct to the best of my knowledge and belief.

John Hock, P.E.

9-14-2022
Date

062-047623 - IL
Professional Engineer Registration Number and State

CRITERION 5

FIGURES

NORTH

NORTH – EXIT ONLY

SOUTH – ENTRANCE ONLY

FIRE HYDRANT

MAINTENANCE BUILDING
DRY PIPE FIRE
SUPPRESSION SYSTEM

FIRE HYDRANT

HYDRO EXCAVATION
WASTE BUILDING
DRY PIPE FIRE
SUPPRESSION SYSTEM

FIRE HYDRANT

FIRE HYDRANT

FIRE
ROVER

OFFICE AND
MAINTENANCE BUILDING
WET PIPE FIRE
SUPPRESSION SYSTEM

C&D TIPPING
BUILDING
DRY PIPE FIRE
SUPPRESSION
SYSTEM

MSW AND SSR
TRANSFER BUILDING
DRY PIPE FIRE
SUPPRESSION SYSTEM

HOT LOAD
MANAGEMENT
AREA

FIRE
ROVER

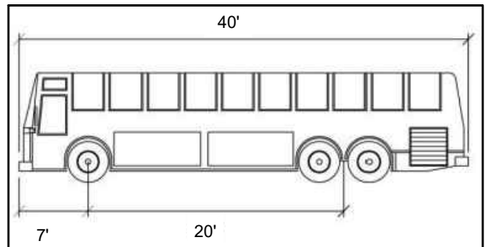
FIRE HYDRANT

FIRE TRUCK
CENTERLINE (TYP)

FIRE HYDRANT

WATER SUPPLY HOSE LOCATED
BETWEEN BAY DOORS

FIRE HYDRANT



40' BUS

WIDTH: 8.0'
TRACK: 8.0'
LOCK TO LOCK TIME: 5 SECONDS

NOTE

1. FIRE TRUCK INGRESS INTO, EGRESS OUT OF, AND ACCESS THROUGHOUT THE PROPERTY IS CONFIRMED SUITABLE FOR BOTH ACCESS POINTS USING A B40 BUS TEMPLATE IN ACCORDANCE WITH CITY REQUIREMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 100 200

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WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

EMERGENCY VEHICLE ACCESS AND FIRE CONTROL PLAN

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:	5-1
DATE:	AUGUST 2022	DWG SCALE:	1"=100'	PROJECT NO:	163-899.0005		

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