Northern Oaks Recycling and Disposal Facility

Northern Oaks Recycling and Disposal Facility (RDF) is a regional facility that provides safe and convenient disposal services for communities, businesses and industries serving Clare County and surrounding areas.

Waste Management’s approximately 300 disposal facilities employ the latest advances in landfill technology. This facility is engineered with environmental protection systems that meet or exceed rigorous government regulations and are subject to highly regulated monitoring and reporting requirements. Systems include engineered liners and covers, leachate collection and removal, and landfill gas collection and control.

Containment Design
Northern Oaks RDF utilizes a double-layer all synthetic liner system constructed of 60 mil high-density polyethylene (HDPE) to ensure that waste and wastewater (leachate) are contained and isolated from soil and groundwater.

Leachate Collection & Treatment
Leachate — a combination of precipitation mixed with the liquid generated by waste as it decomposes — is managed with evaporator technology through a landfill gas-fueled evaporator. The evaporator system turns leachate into steam, treating an average of 30,000 gallons of leachate and utilizing approximately 640,000 cubic feet of landfill gas, per day. The leachate evaporator offsets the use of an estimated 36,000 gallons of diesel fuel annually.

Groundwater Monitoring
Groundwater is monitored at 17 wells, which are upgradient and downgradient of the waste disposal footprint. The groundwater monitoring network is sampled and analyzed semi-annually in accordance with the procedures of the facility’s hydrogeologic monitoring plan.

Landfill Gas Management
Northern Oaks RDF collects and manages landfill gas through an extensive flare system with 120 wells, which reduces emissions and minimizes odor. In addition to using the landfill gas as energy to power our leachate evaporator, the landfill gas is also used to power our gas-fired engine to generate electricity, which is then sent to the Consumers Energy electrical grid. At full load, the energy plant uses approximately 680,000 cubic feet of landfill gas per day and averages 1620 kilowatts (or 1.62 megawatts) of electricity, which is enough to power more than 1000 homes.

Security
Site security is ensured by controlled, limited access to the facility through the gatehouse as well as perimeter fencing and natural barriers. During non-business hours the gate is locked and monitored by 24-hour electronic surveillance.
Acceptable Material
- Asbestos – Friable/Non-Friable
- Auto Shredder Residue
- Drum Management – Solids
- Industrial & Special Wastes
- Liquids
- Municipal Solid Waste (MSW)
- NORM Waste
- Tires – Shreds/Chips

Unacceptable Material
- Hazardous Waste
- Municipal or Incinerator Ash
- Radioactive Waste
- Sewage Sludge
- Yard Waste

Additional Services Provided
- Household Hazardous Waste Collection
- Recycling
- Solidification
- Tire Recycling

Risk Mitigation
Waste Management provides the highest level of services, backed with state-of-the-art site design and management systems, to help minimize risks and reduce liabilities.

Community Partnerships and Involvement
Northern Oaks RDF is proud to be an active supporter of community events and programs that make Clare County and its surrounding counties a strong and healthy place to live, work and play.