

Clean and Green in Lakewood Township

New public works complex includes state-of-the-art vehicle wash system

Lakewood Township in Ocean County, NJ, has an area of 26 square miles, an estimated population of over 80,000, and almost 230 miles of township streets. The 130 employees of the public works department, under the guiding hand of John Franklin, Director of Public Works, provide a significant list of services: maintenance and repair of roads, including snow removal, and street sweeping; sewers; parks and open space; solid waste, leaf, and brush collection and recycling, as well as collection of tires and refrigerators; animal control; and even maintenance of FirstEnergy Park, home of the Lakewood BlueClaws, 2006 South Atlantic League Champions and Single A Affiliate of the Philadelphia Phillies.

To perform all of this work, the department of public works has assembled an impressive fleet of equipment,

including all manner of trucks, utility vehicles, street sweepers, construction equipment, and related equipment like spreaders, snowplows, mowers, etc. Department mechanics handle an impressive list of maintenance chores for a fleet of this size, including, but not limited to:

- All preventive maintenance of fluids, filters, wear parts, etc.
- Service of all vehicles belonging to the inspection and police departments
- Parts inventory
- Fuel tank maintenance
- Installation and removal of snowplows, spreader bodies, leaf pickup equipment, etc.
- Tire repair and replacement



Empty wash system awaits...



Pressure spray wands operating at 2,000 psi are used to detail engines, wheels, and other parts.

In 2006 the department of public works moved into the new John J. Franklin Public Works Complex, a \$23-million, 25-acre, state-of-the-art public works center that houses administrative offices; training facilities; sign, carpentry, tire, and welding shops; complete equipment and materials storage; a recycling center; and much more.

New Jersey Department of Environmental Protection Stormwater Regulations mandate that by February 28, 2009 municipalities must eliminate unpermitted discharge of equipment and vehicle wash water to the waters of the state. In response, a significant addition to the new public works complex is the department's new vehicle wash system from Rieskamp Equipment Company (www.rieskamp.com) for the



...the entrance of a truck, which is first soaked with activator...

entire Lakewood Township fleet, from police cars to refuse packers.

The wash system primarily consists of three stainless steel arches: activator, detergent, and wash. The activator arch sprays the vehicle with a cleaning component that begins to work on tough road film. The activator is followed by the second arch, which applies a detergent solution heated to 130 degrees F, which provides faster break down of dirt and road film. The high pressure detergent arch removes dirt and film with up to 1,000 psi of cleaning pressure. Undercarriage nozzles remove salt, sand, and mud for easier vehicle servicing. After rinsing, the vehicle enters the curtain (air) dryer where it is blown dry by high pressure forced air dryers.

The vehicle wash system includes numerous features:

- Stainless steel tanks
- A pair of 2,000-psi pressure spray wands for detailing engines, wheels, and parts

- Multiple directional nozzles for concentrated cleaning of the rear of the vehicle.

- A stainless steel reclaim system with cyclone filters requiring no carbon media

Pacer lights assist the drivers as they move their vehicles through the system. An electronic sensor provides touchless system activation and a one-button emergency stop system shuts down all systems if necessary. Four-in. heavy duty guide rails assist vehicles for proper alignment for maximum cleaning results and the low-voltage wash bay is computerized for maximum efficiency and local or remote diagnostics.

The wash system cost \$163,000, in addition to the cost of the building and electric, water, and wastewater utilities.

Material costs to wash a vehicle are in the range of \$6 to \$9.

Alterations to the new system are already planned. The current drying blower is mounted four feet above the floor, which is an appropriate height for large trucks like refuse packers and dumps. An additional drying blower will be added at floor height to remove water from lower profile vehicles, such as police cars. Lakewood plans to allow other townships to use its truck wash, so a card reader is also planned for the system, which will provide a record of all vehicles going through the truck wash.

According to John Franklin, Lakewood's fleet has never been cleaner. Crew reaction has been positive and drivers particularly enjoy the system's easy operation.



...followed by high-pressure, heated detergent...



...and finally a rinse before the truck is blown dry.