



Project Application Profile

Technology:	SWAT RF and TF Misting Technology to Control Odors
Project:	Odor Control at Waste Shredding Operation Odor Control at Landfill – during day Apex Landfill Odor Control at Landfill – temperature Inversions - Neighbors
Contractor / Site Manager:	Allied Waste, E. Chicago Composting – Terry Zona Jr. Allied Waste, Vienna Junction Landfill – Toledo, Ohio Mike Waste Management, King George Landfill – Luke Ohler City of Waterloo, Canada Granger Landfill, Michigan – Jim Nixon
Products Used:	Odor Sergeant and Odor Major and Odor Lieutenant
Date:	June 2008 through May 2009

SWAT Misting Technology Explained:

The SWAT misting technology uses the acronym SWAT which means ‘sprays wide and terminates’ odor, bird infestation, dust and flies. The technology allows the very efficient and effective application of four different product lines, including just water, to control odor, bird infestation, dust and flies. This is new technology adapted from the application of pesticides on fruit and ornamental trees. In this area, the misting technology allows for better and more complete application of the chemical on the plants. This technology uses a rotary head misting basket which allows for the plug free misting of a wide variety of chemistries that can be quite thick and viscous. The liquid flows into a collar (see photo below left of the white plastic collar and misting basket) that has holes cut into the collar. As the collar spins on the spindle (see middle photo below) at approximately 5000 rpm, the liquid flows from the tube (see middle photo below also) into the collar and by centrifugal force exits the collar through the holes. When the resulting droplets hit the screen mesh baskets (shown in photo right as well as a single basket shown in photo left), a very fine mist is created. Droplet size depends on mesh size.



In controlling odor, the swat technology provides for a more efficient and higher mixture of neutralizing chemistry with the odor molecules escaping from the surface of the landfill, compost piles or waste water treatment facility. When used for Dust Control and large screen mesh basket, no other technology can deliver as much moisture in the air to control the dust.

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There is no need to provide certification of this technology because of its wide spread use in the berry (strawberry, blueberry & orange) farming industry.

RF Technology vs TF Technology:

RF stands for 'rotary fan' (see photo on right below) and TF stands for 'tangential fan' (see photo on left below) technology. The difference is how far or high do you want to push the odor or dust control product, and how much daily or at least weekly maintenance in which you wish to be involved. RF fans have sealed bearings and require less maintenance from a greasing point of view. TF fan technology, although more powerful, requires constant oversight, making sure that the fans be greased since there are not sealed bearings.



Project Usage:

East Chicago Composting Facility – Allied Waste

Throughout the fall of last year, and up until the winter, Allied Waste at its East Chicago Composting facility used New Waste Concepts' SWAT RF technology and the machine shown in the photo below left to control odors at its waste shredding facility in East Chicago, Illinois. According to Terry Zona Jr., the SWAT technology saved them from being shut down when using in combination with Odor Sergeant and Odor Major. The Allied Site had tried perimeter misting systems and odor control products manufactured by other vendors but found them inexpensive but ineffective making the end result expensive.



Apex Landfill – Eastern Ohio

Apex landfill in Eastern, Ohio had been cited for numerous odor control violations. They were looking for an effective method of controlling the odors at the landfill. They called on New Waste Concepts to help them by employing the SWAT technology at NWC's Odor Sergeant. The neighbors proved the effectiveness of this technology when a belt on the engine failed. Neighbors immediately claimed that the product was not working

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along with the complaint that the machine had to be ineffective. The company realized the success of the technology when the complaints were directly correlated to when the SWAT machine was not operational while the belt was being replaced. Brendon Pantano, site manager stated, 'we knew that machine and the Odor Sergeant was working when the neighbor said did not have any odor complaints when the machine was running and they were misting the Odor Sergeant product.'



Odor Control with Neighbors ½ mile away at King George Landfill

In the fall of the year, King George Landfill, a very large landfill outside of Washington DC, operated by Waste Management contacted New Waste Concepts to see if a problem of odor complaints could be reduced or eradicated by using the SWAT technology. The



need was from early evening to early morning when most neighbors were back from work trying to enjoy their back yards. NWC brought their TF Fan SWAT system to King George and during the fall of 2008, the machine ran 12 hours from 7 pm to 7 am. 'Complaints dropped to near Zero' said Luke Ohler, site operations manager. 'A powerful system' he went on to say.

Bird & Odor Control with SWAT TF System at Viridor Waste Mgmt in UK

Viridor Waste management wanted to try out the new SWAT technology to control odors and birds at their Squab Wood site in Hampshire, United Kingdom. John Riley said he was looking for ways to control the birds and Odors at the same time. NWC-UK provided him a machine mounted with the SWAT technology and Odor Sergeant. The odor control using the SWAT technology was so successful that the regional manager's wife came over to the landfill and asked what we were doing to control the odor since she lived nearby the site. John Riley also commented that the birds left the working



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face within 2 minutes of starting up the SWAT machine. He reported further that the next day, the birds were a mile away in the sky when the SWAT machine was brought to the working face.

Summary:

Milton F. Knight, CEO of New Waste Concepts, hereby certifies that the TF and RF technology works efficiently and effectively against odors, birds, and dust.

A handwritten signature in black ink, appearing to read 'Milton F. Knight', with a large, stylized flourish at the end.

CEO of New Waste Concepts

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