



F11 The Staten Island Landfill and the World Trade Center

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After attending this presentation, attendees will learn how the World Trade Center debris was processed.

This presentation will impact the forensic community and/or humanity by discussion how the World Trade Center debris was processed in one of the largest forensic recoveries in the world.

On September 11, 2001, terrorists hijacked four airplanes with the intention of attacking The United States of America by flying them into military, political and symbolic American targets. Three of the planes hit their intended targets. Passengers on the fourth plane, learning of the attacks fought the hijackers and the plane subsequently crashed into a field in Pennsylvania killing the 64 passengers on board. The Pentagon was hit and 184 military and civilian personnel were killed. The other two planes crashed into the Twin Towers of the World Trade Center in New York City ultimately causing the collapse of both buildings and the deaths of thousands of civilians and hundreds of emergency responders. After the collapse rescue teams went in and began the search for survivors. They encountered a ten story 1.5 million pile of debris that used to be two towers standing 110 stories high. Unfortunately very few people survived the collapse. The rescue effort inevitably turned into a recovery effort to find the victims of the worst terrorist attack in history. The question that arose is what to do with the debris and how to sort through it.

The 2200 acre Staten Island landfill, closed just 6 months prior to the attacks, was reopened for the world's largest forensic recovery and debris disposal effort from what was to become known at first as "the Pile" and then finally "Ground Zero." The landfill had been closed since March of that year, but all the apparatus remained in place: barges, haul trucks, bulldozers, loaders.

The recovery at the landfill was in the jurisdiction of the New York City Police Department and was treated as a crime scene. Not only were victims to be recovered but evidence from the airplanes, especially the black boxes and of course, artifacts of the towers themselves were to be found and preserved. The debris also needed to be disposed in a safe manner.

FEMA designated the Army Corps of Engineers (ACofE) to set up the recovery effort at the land fill. Ultimately, over thirty local, state and federal agencies were involved.

The debris was being laid out on the ground, and the agents (about 2,000 of them, including NYPD, FBI, Secret Service, CIA, and K-9 units working 24/7) would have to rake through the debris looking for body parts, personal effects, and evidence at their feet, yielding the largest crime scene the United States had ever experienced and the most complex debris field in our Country's history.

The ACofE civilian contractors automated the process by the use of machines that sorted the WTC debris by size. The debris was brought to the landfill by truck or barge. Large metal debris was separated and investigated by civil engineers for the cause of the towers collapse. Remaining debris was loaded by front end loaders and grapplers into large shakers. The larger fragments were moved to a manual sorting area for investigation. The finer fragments which fell through the screens were taken to one of the Screening Plants for processing where they were further separated into two debris streams: small mixed fragments and very small mixed fragments. These two sizes of mixed fragments were passed onto separate conveyor belts that carried the debris to Picking Stations where agents manned each side of the conveyor belt and investigated the debris as it passed any evidence was removed by the agents as it passed by.

Human remains recovered by the agents were separated and placed into protective containers and then removed to the on-site morgue and eventually transported back to the medical examiners office in Manhattan. Evidence was placed in secure Evidence Trailers for future processing. Metal was recycled. All other debris was buried in the landfill. All of this was on top of the largest active methane gas-producing landfill in the world.

On day 321, July 26, 2002, the last of the debris from Ground Zero was processed ending the processing of the worlds largest crime scene. A simple ½ hour ceremony marked the end of the effort.

- 1,462,000 tons of debris had been received and processed
- 35,000 tons of steel had been removed (165,000 tons were removed directly at Ground Zero)
- 806,000 tons of debris had been screened, an average of 75 tons per hour
- 14,968 workers had been through the PPE process
- 43,600 people (39,795 NYPD, 6,212 non-NYPD) had been through the Site Specific Indoctrination
- Over 1.7 million man hours had been worked
- Over 55,000 discrete pieces of evidence had been recovered
- 4,257 body parts had been recovered 209 victims had been positively identified
- Over the duration of the project the average amount of debris processed was 4,900 tons per day
- No more lives lost.

Landfill, Artifacts, Ground Zero