

Global Security

T-1 Radiological/ Nuclear WMD Incident Exercise Site



Introduction

To increase domestic preparedness to combat terrorist threats, the U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office (NNSA/NFO) provides a unique radiological/nuclear weapons of mass destruction (WMD) training center at the Nevada National Security Site (NNSS), located 65 miles northwest of Las Vegas, Nevada. Emergency responders are trained to take immediate, decisive actions in response to terrorist use of radiological or nuclear WMDs, such as Improvised Nuclear Devices (INDs), Radiological Dispersal Devices (RDDs) and Radiation Exposure Devices (REDs).

Background

Specialized radiological/nuclear WMD response training at the NNSS was first offered in 1999 to emergency responders from across the U.S. The NNSS soon became a popular training center due to its radiological/nuclear WMD expertise and the special training venues. After the terrorist attacks on September 11, 2001, the Counterterrorism Operations Support (CTOS) training program decided to rebuild the T-1 Site at NNSS into a training center representing a modern American community attacked by a terrorist IND or by multiple RDDs. Back in 1955, the Federal Civil Defense Administration constructed a “typical American community” at the T-1 Site. In a nationally televised event on May 5, 1955, this community was devastated by a 29-kiloton nuclear explosion on civilian communities that tested the emergency response capabilities of Civil Defense organizations. Today, this same T-1 Site is once again being used to prepare the country to respond to the effects of a nuclear attack.



Radiological survey after simulated RDD detonation at T-1 train station.

Radiological/Nuclear WMD Incident Exercise Site (T-1 Site)

Completed in 2004, the Radiological/Nuclear WMD Incident Exercise Site (T-1 Site) at the NNSS is like no other training ground in the United States. Four nuclear devices were detonated at this location between 1952 and 1957, and the small amount of nuclear fallout remaining from these detonations is now below the surface of the soil, providing a realistic and safe training area today. The soil at the T-1 Site emits low levels of radiation, simulating widespread radiological contamination from an IND



1. Ground Zero of Actual Nuclear Detonations
2. RDD in Downtown with Buses and Cars
3. RDD at Airport with Planes and Trucks
4. RDD at Train Station with Locomotive
5. Rail Station/Classroom
6. Industrial Site/Clandestine Laboratory
7. Attacks on Tractor Trailer Transport Vehicles
8. Airliner Debris Field
9. Participant Staging Area
10. Contaminated Restaurant and Strip Mall
11. Residences/Safe Houses
12. Railroad Tunnel
13. Crashed/Damaged Vehicles



Emergency responders measuring radiation levels after simulated RDD detonation in the "downtown" area of T-1.

or multiple RDDs, yet posing minimal risk to participants. Adding to the realism, radioactive debris created during nuclear detonations, such as twisted steel fragments and sand melted into radioactive glass (Trinity glass or trinitite), are still scattered throughout the T-1 Site. Industrial, sealed radioactive

sources are also placed in exercise areas to create higher levels of radiation as needed for training objectives. The T-1 Site has more than 10 acres of exercise venues with elevated radiation levels, thus allowing over 100 emergency responders to participate simultaneously.

The CTOS training program at NNSS is sponsored by the U.S. Department of Homeland Security Federal Emergency Management Agency, National Preparedness Directorate.



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