



## T-1: The Nevada National Security Site's Unique Training Area



*Nuclear detonation at T-1 site on May 5, 1955.*

### Introduction

To increase the domestic preparedness to combat terrorist threats, the U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office (NNSA/NSO) 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. At the NNSS, 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 or “dirty bombs,”) and Radiological Exposure Devices (REDs).

### Background

Specialized radiological/nuclear WMD response training at the NNSS was first offered in 1998 to state and local jurisdiction emergency responders from across the U.S. The NNSS soon became a popular training center for emergency responders due to its radiological/nuclear WMD expertise and the special training venues with realistic WMD scenarios. After the terrorist attacks on September 11, 2001, the CTOS—Center for Radiological/Nuclear Training at the NNSS decided to rebuild the T-1 Site 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 detonation in order to evaluate the effects of a nuclear explosion on civilian communities and test 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 and mitigate the effects of a nuclear attack.

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



*Layout of the Radiological/Nuclear WMD Incident Exercise Site (T-1 Site). For more photographs, visit [www.ctosnnsa.org](http://www.ctosnnsa.org).*

1. Ground Zero of Actual Nuclear Detonations
2. RDD in Downtown with Busses 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



Completed in 2004, the Rad/Nuc 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 or multiple RDDs, yet posing minimal risk to participants. Adding to the realism, radioactive debris created during the 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.



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



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

## Who Trains at T-1?

The T-1 Site is a part of the CTOS—Center for Radiological/Nuclear Training at the NNSS. CTOS training courses provide state and local emergency responders with the tools they need to protect their communities from various threats. Emergency response personnel from the following disciplines qualify for the training:

- Emergency Management Agency
- Fire Service
- Hazardous Materials Personnel
- Law Enforcement
- Public Safety Communications
- Emergency Medical Services
- Governmental Administrative
- Healthcare
- Public Health
- Public Works

The CTOS—Center for Radiological/Nuclear Training at the NNSS is sponsored by the U.S. Department of Homeland Security Federal Emergency Management Agency, National Preparedness Directorate.

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