

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of: PRIVATE FUEL STORAGE, LLC (Independent Spent Fuel Storage Installation)	Docket No. 72-22-ISFSI ASLBP No. 97-732-02-ISFSI
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STATE OF UTAH)
) ss.
COUNTY OF SALT LAKE)

AFFIDAVIT OF DAVID C. LARSEN

I, DAVID C. LARSEN, being first duly sworn upon oath, depose and state as follows:

1. I am employed as Environmental Scientist III at the Division of Solid and Hazardous Waste (Division), Utah Department of Environmental Quality, and have worked at this Division since August 29, 1988.
2. I earned a Masters of Science degree in Geology in 1987, from Brigham Young University.
3. The State has been delegated the Resource Conservation and Recovery Act (RCRA) program by the U.S. Environmental Protection Agency and issues hazardous waste managment permits to Dugway Proving Ground (Dugway), a U.S. military reservation located in Tooele County approximately eight miles southwest of the Skull Valley Band of Goshutes Indian Reservation. I act as lead for all RCRA compliance and permitting issues for Dugway.

4. Dugway's mission includes testing chemical and biological defense systems for the Department of Defense . For example, Dugway tests chemical agents, chemical agent decontaminants, personal protective equipment, smokes and illuminants and chemical and biological defense monitoring equipment, and on occasion also receives chemical agent from Deseret Chemical Depot. The National Guard and Air Force also use Dugway to train with live munitions. Dugway is the proposed landing site of the X-33 hydrogen-powered space plane. Dugway also stores hazardous waste and open burns and open detonates waste explosives and propellants.

5. I also assist as needed on other projects, including the Tooele Chemical Agent Disposal Facility (TOCDF) and the Chemical Agent Munitions Disposal System (CAMDS), both of which also are located in Tooele County and are part of the federal Deseret Chemical Depot facility.

6. My current duties include performing frequent inspections of activities related to waste management and overseeing clean up of contaminated sites at Dugway as described above. I have been lead on Dugway permitting issues since about 1990, and lead on all permitting and compliance issues since about 1994. I review technical and scientific documents, such as permit applications and permit modification requests, clean up plans and reports, closure plans and other documents related to waste management at Dugway. I write inspection reports based on my observations and investigations, permits, and modify other documents to meet regulatory requirements. As part of my job duties, I evaluate the site hydrology, contaminant migration, compliance

with applicable rules, and the impacts of various current and past practices on the environment.

7. I have nine years of on the job training and I have attended several RCRA specific training courses. On the job training includes participation in compliance inspections at a variety of facilities throughout Utah, participation in penalty settlement negotiations, writing inspection reports, sampling for contamination, writing and performing assessments of potential environmental contamination, and writing various permits. I have attended many different types of environmental courses including 40-hour OSHA safety training, annual 8-hour OSHA refreshers, inspector training, waste identification and sampling, quality assurance and quality control, groundwater and soil sampling, and site cleanup and risk assessment.

8. The State occasionally issues emergency hazardous waste permits for the detonation of "hanging" bombs which occasionally occur during Hill Air Force Base's (HAFB) munition detonation tests in which F-16 bombers are loaded and drop live bombs for practice north and northwest of Dugway (directly west and northwest of the proposed ISFSI). Approximately five times per year a munition becomes stuck and does not drop from the bomber. It is too dangerous for the bomber to return to HAFB in that condition, and must land at Dugway to have the "hung" ordnance removed.

9. Dugway does tests with smoke, obscurant and illuminating agents. For example, white phosphorus burns on the ground and is used to mark a location and burning of fog oil creates a smoke cloud designed to obscure vision. Other agents are

used as illuminants and generally burn-up before contacting the earth. I have observed these agents burning in the air and on the ground.

10. Dugway occasionally recovers munitions from the ranges and has requested emergency permits from the State to open detonate unexploded projectiles, mortars and other munitions filled with high explosive, white phosphorus, FS smoke, nerve and blister agent and other compounds. Thousands of unexploded chemical filled munitions are present on the ranges and buried in landfills at Dugway.

11. The National Guard fires projectiles and other munitions down range at Dugway as part of its training exercises. The National Guard generates waste propellant as part of the down range firing of munitions. The propellant is burned on the ground at various locations on Dugway. I have observed propellant burning activities on a range.

12. I am aware of other facilities in Skull Valley in the vicinity of the proposed ISFSI. The Utah Test and Training Range (UTTR), 18.3 miles from the proposed ISFSI, is used by the U. S. Air Force as a training range for air-to-air and air-to-ground live munitions training, propagation testing of military ordnance. Commercial facilities, the Laidlaw APTUS hazardous waste incinerator, the Envirocare low level radioactive and mixed waste landfill, the Laidlaw Clive Hazardous Waste Facility, and Laidlaw's Grassy Mountain hazardous waste landfill, are located northwest of the proposed ISFSI and receive thousands of tons of waste annually, most of which is shipped by way of Rowley Junction.

13. I have observed that during the summers of 1995 and 1996 large tracts of land near the Goshute Indian reservation and at Dugway burned during range fires. Nearly every year there seems to be a range fire in Skull Valley.

14. During 1996, a range fire occurred at Deseret Chemical Depot. The fire resulted because abandoned white phosphorus grenades decayed and ignited.

15. To fulfill my inspection duties at Dugway, I travel west on I-80 from Salt Lake City, take the Rowley Junction exit, then travel south on Skull Valley Road which runs within two miles of the site of the proposed independent spent fuel storage installation (ISFSI) on the Skull Valley Indian Reservation, and then pass the Tekoi rocket testing facility en route to Dugway. During these trips on Skull Valley Road I have observed that most vehicles travel at 70-80 mph rather than the legal speed limit of 55 mph. The road is narrow, approximately 22 feet wide, receives minimal maintenance during the summer and has developed bumps due to frost heaves that cause drivers to reduce speed in at least two locations. During the winter, the road is usually not plowed and becomes very icy and dangerous to negotiate, causing vehicles to easily slide off the road. Most times I have driven along Skull Valley Road there have been stray cattle on the road from the large cattle ranches which exist in Skull Valley, and many times there are cattle drives along the road. I have observed many trucks and military vehicles, some oversized, use the road for transporting munitions, explosives, tanks, military personnel, etc. to Dugway, and have frequently seen that campers and mineral collectors use the road as access to the Pony Express Trail. Along Skull Valley Road, I typically see eagles,

many hawks, and a few deer or antelope. Based on my observations, I would estimate that thousands of vehicles travel the Skull Valley Road each year.

FURTHER AFFIANT SAYETH NOT.

DATED this November 21st, 1997.

David C. Larsen
DAVID C. LARSEN

Voluntarily signed and sworn to before me this 21st day of November, 1997, by the signer, whose identity is personally known to me or was proven to me on satisfactory evidence.

Karma L. Pathakia
NOTARY PUBLIC

Residing at: SLC Utah

My Commission expires: 5-15-2001

