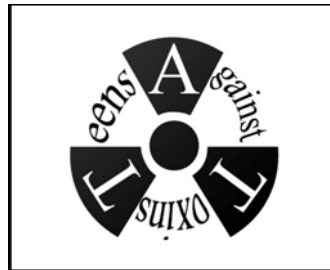


# Overview of Environmental Concerns about the Santa Susana Field Lab (Rocketdyne)

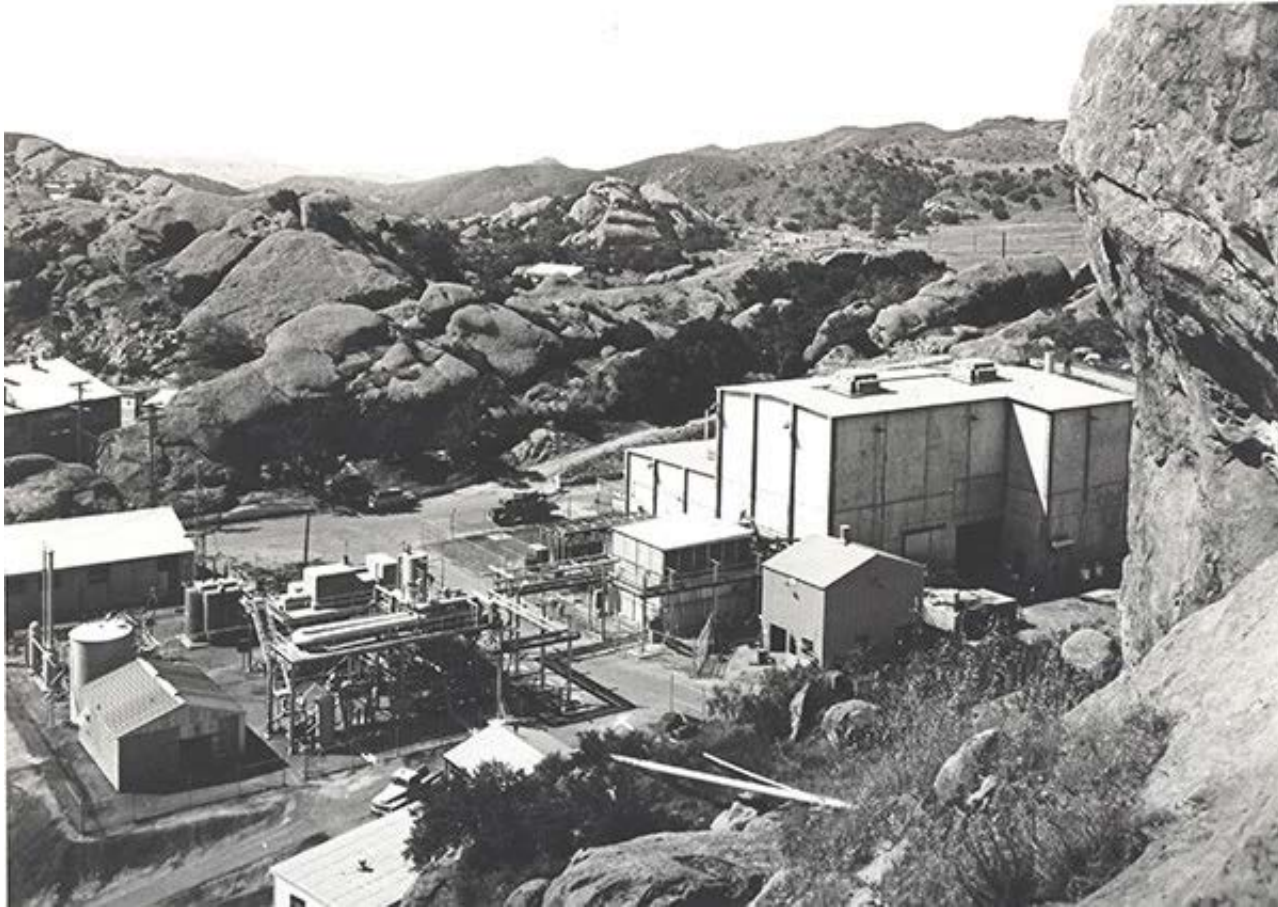


- Teens Against Toxins (TAT) is a group of teens from three local high schools who are working to increase awareness about SSFL (Rocketdyne) and to advocate for a clean up of the site following the 2010 clean up laws to background.
- TAT meets frequently with scientists, government officials, non-profit environmental groups, NASA, the DOE, the EPA and the CA State Department of Toxic Substance Control (DTSC).
- TAT has been interviewed by the Wall Street Journal, the LA Times, NPR and several other local media sources.
- TAT educates the community by going to farmers markets and community events.

# History of the site

- SSFL was a United States government facility dedicated to the development and testing of nuclear reactors, powerful rockets such as the Delta II, and the systems that powered the Apollo missions.
- The location of SSFL was chosen in 1947 for its remoteness in order to conduct work that was considered too dangerous and too noisy to be performed in more densely populated areas.

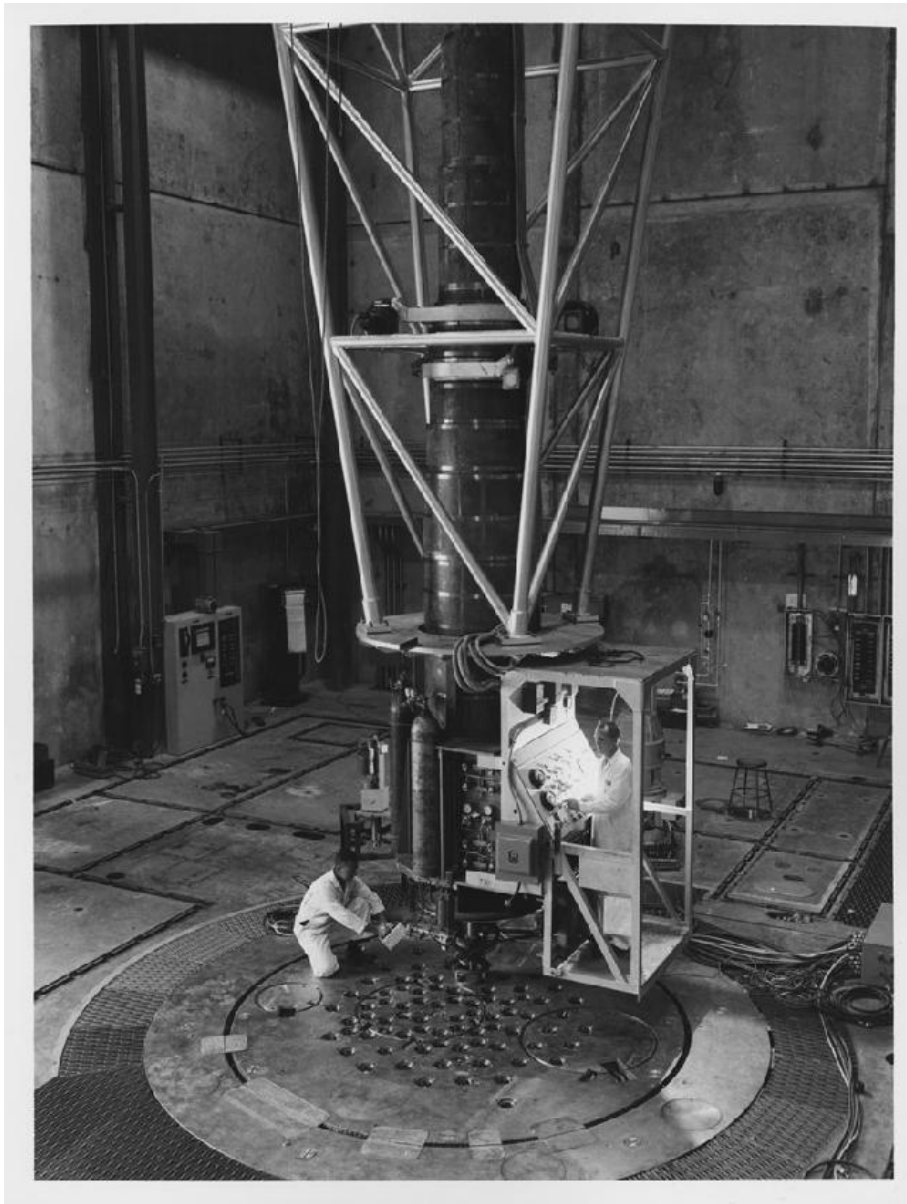
# Photo of the building with the nuclear reactor – 1958



Since it was during the Cold War, the building didn't have a concrete containment structure as nuclear power plants do today.

# Causes of Nuclear Contamination

- Partial nuclear meltdown July 13, 1959.
- 13 out of 43 fuel rods melted in the 1959 Sodium Reactor Experiment.
- Other nuclear accidents 1964 and 1969.



Inside the SRE (nuclear building)

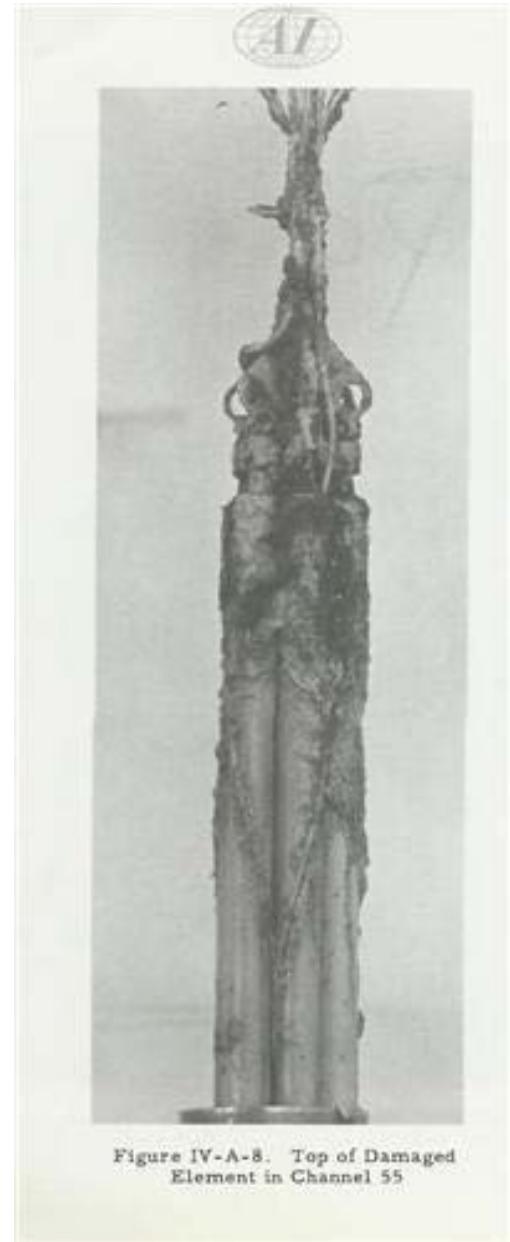


Photo of one of 13 melted fuel rods at SSFL

- In 2012, the EPA completed a \$40 million, multi-year radiation survey which identified **500** places on the property with contamination which includes plutonium-239, cesium-137, strontium-90, and other radioactive pollutants, as much as one thousand times background.





Recent photo showing how know nuclear areas are covered.



# Causes of Chemical Contamination

- The Department of Defense and NASA used the area to conduct 30,000 rocket tests.
- Over 1.73 million gallons of TCE (a known carcinogen) were used at Rocketdyne to hose down the inside and outside of rocket engines after rocket tests.
- There are an estimated 500,000 to 1,000,000 gallons of TCE in the ground water at the site.
- Perchlorate, a toxic rocket fuel oxidizer linked to thyroid illnesses, was in the tests.
- Perchlorate is toxic at miniscule concentrations-its permissible concentration in water is 5 parts per billion. DTSC data from 2004 shows SSFL groundwater containing up to 79,000 parts per billion (ppb) of TCE- 15,800 times the EPA's "maximum contaminant level" of 5 ppb
- Perchlorate was found in seven wells in Simi Valley in 2004 and in the soil below Ahmanson Ranch.
- Boeing was fined \$471,000 in 2007 and 79 violations of waste water and storm run-off with elevated levels of chromium, dioxin, lead, mercury and other pollutants.

# Cancer Rates

- A study done by Dr. Hal Morgenstern at UCLA's School of Public Health found:
  - “For the period 1988 through 1995, we found that the incidence of cancer was more 60% greater among residents living with 2 miles of SSFL than among residents living more than 5 miles for the following types of cancer: thyroid, upper aerodigestive tract, bladder, and blood and lymph tissue.”

# Fire at Nuclear Area of SSFL -2005



In 2005, wildfires swept through northern Los Angeles County and parts of Ventura County. The fires consumed most of the dry brush throughout the Simi Hills where SSFL is located. The facility received substantial fire damage. Since the fire, allegations have emerged that vast quantities of onsite contamination were released into the air. Los Angeles County firefighters who were assigned to SSFL during the fire were sent for medical testing to see if any harmful doses were ingested or inhaled while protecting the facility. There was no notification to the public about this danger.

In 2010, NASA and DOE signed Administrative Orders on Consent (“AOCs”) with the DTSC (Department of Toxic Substance Control) agreeing to clean up all contamination on their parts of the property to background levels, meaning returning the property to the condition it was in before they polluted it.