

# SANTA SUSANA FIELD LAB

## A BRIEF OVERVIEW OF A COMPLEX PROBLEM

### THE BEGINNINGS OF THE FIELD LAB

The Santa Susana Field Laboratory (SSFL), formerly known as Rocketdyne, is a former nuclear and rocket engine testing facility that remains contaminated with hazardous radiological and chemical pollutants.

The SSFL was established in the late 1940s by the Atomic Energy Commission as a testing facility for nuclear reactor development, work too dangerous to perform close to a populated area. Over the following decades, however, the population mushroomed around the area.

The 2,850 acre site is in the hills above Simi Valley and West Hills, and is less than 10 miles from the communities of Agoura, Calabasas, Canoga Park, Chatsworth, Malibu, Moorpark, Newbury Park, Santa Clarita, Woodland Hills, Westlake Village, Oak Park, and Thousand Oaks...over half a million people reside within ten miles of the site.

The site is now primarily owned by the Boeing Company and NASA. They are responsible for the cleanup, along with the federal Department of Energy. California EPA oversees the Department of Toxic Substances, which is the regulating agency in charge of enforcing the cleanup agreements.

### SSFL CONTAMINATION

In 1959, the Sodium Reactor Experiment (SRE) experienced a partial meltdown, in which a third of the fuel experienced melting. It was one of the worst nuclear accidents in American History. In 1964, a SNAP reactor suffered damage to 80% of its fuel. In 1968-69 another reactor suffered similar fuel damage.

Overall the site was home to ten nuclear reactors, half a dozen critical facilities, a plutonium fuel fabrication facility, and a "hot lab" for disassembling irradiated nuclear fuel shipped in from around America.

For decades, radioactively and chemically contaminated reactor components were burned in open pits with airborne releases of contaminants as well as surface runoff of the contaminants off site. A 2012 EPA study of one SSFL area found hundreds of places with radioactive contamination such as plutonium-239/240, cesium-137, and strontium-90, carcinogenic radium, dioxins, chromium, trichloroethylene (TCE), and vinyl chloride. In addition, tens of thousands of rocket

tests were conducted at SSFL, resulting in significant chemical contamination.

Over 800,000 gallons of trichloroethylene (TCE) were used to flush out rocket test engines and then allowed to seep into the soil and groundwater. The site is also contaminated with perchlorate, dioxins, heavy metals, and volatile and semi-volatile organic compounds that can cause harm to human health.

### SSFL'S AFFECT ON HUMAN HEALTH

Several independent multi-year epidemiological studies indicate increased cancers for workers and off-site populations. The UCLA School of Public Health found significant increases in death rates from cancer of the lung, lymph and blood systems among the more exposed workers at SSFL compared to less exposed workers.

In a study for the U.S. Agency for Toxic Substances and Disease Registry (ASTDR), Professor Hal Morgenstern found a 60% higher cancer incidence rate for those living within two miles of the site at the time of the study.

Studies by cancer registries found elevated rates of bladder cancer, which is a rare cancer, associated with proximity to SSFL. The California Breast Cancer Mapping Project found a 10-20% higher invasive breast cancer rate for the general area surrounding the site, compared to the rest of California.

In 2010 a cluster of pediatric retinoblastoma cases, a rare eye cancer affecting young children, was identified within an area down-wind of the site. More recently, a new cluster of pediatric cancers near the site has raised tremendous concern.

### SSFL CONTAMINATION MIGRATES OFF SITE

Contamination can and does migrate from the site:

- A TCE plume in the groundwater extends off-site.
- Perchlorate has been found in numerous wells in Simi Valley, in Dayton Canyon, and in Ahmanson Ranch.
- Strontium-90 was found at Runkle Ranch.
- Last year there were 57 maximum contamination exceedances from runoff, reported to the LA Regional Water Quality Control Board in 2018-2019, primarily due to the Woolsey Fire which burned through 80% of the SSFL
- Over the last few years there have been hundreds of other water exceedances.

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- Lead was found in the rain runoff leaving the site in 2019 at 17x higher than the safety levels.
- Cyanide, Arsenic, Gross Alpha (radioactive particles) were also found in the 2019 runoff, all above the maximum contamination levels.
- Boeing has been fined \$1.2 million dollars since 2000 by the Los Angeles Water Board for allowing the SSFL to pollute the Los Angeles River.
- 568 tons were disposed of in Class II landfills, designed for industrial, not radioactive waste.
- 242 tons were disposed of in Class III landfills, (regular) municipal trash dumps.

### **SUPPORT FOR THE 100% (AOC) CLEANUP**

Support for a full cleanup of SSFL has been expressed by thousands of community members living near the site. Over 7000,000 people have signed our Change.org petition, launched by parents whose children have pediatric cancer and live near SSFL.

### **THE CLEANUP**

- Boeing, NASA and the Dept. of Energy all signed a consent order in 2007 that covers the groundwater cleanup.
- The complete cleanup was headed by former CalEPA Secretary Linda Adams.
- Legislation SB- 990 was passed in 2007 to enforce the cleanup but Boeing sued against it and won.
- An Agreement on Consent (AOC) (written by Nobel Peace Prize Winner and Dept. of Energy's 12th Secretary Steven Chu) was signed in 2010 by the Department of Energy, NASA, and the state of California.
- Boeing refused to sign the AOC but instead agreed to meet California environmental laws and to clean the site to match the local zoning of the area.
- In 2013 Boeing violated CEQA by failing to perform any of the required environmental reviews for the demolition of structures at Area IV of the SSFL and were sued by Consumer Watchdog, Physicians for Social Responsibility-Los Angeles, Committee to Bridge the Gap, and the Southern California Federation of Scientists.
- Some have claimed this is lawsuit has stopped the clean-up...that is true as the way the cleanup was being implemented put generations of people at risk of exposure to carcinogenic and radioactive waste. (See below)
- All three polluters have recently declared they will not follow their legal cleanup agreements but will instead use the "recreational" cleanup standard, leaving up to 98% of the contamination on site permanently.

### **GOVERNMENTS AND ELECTED OFFICIALS**

- City of Los Angeles
- Los Angeles County Board of Supervisors
- City of Ventura
- Ventura County Board of Supervisors
- City of Simi Valley
- Senator Diane Feinstein
- Congresswoman Julia Brownley
- Congresswoman Katie Hill
- Congressman Brad Sherman
- Congressman Tony Cardenas
- Congressman Adam Schiff
- Congresswoman Karen Bass
- Congressman Mike Thompson
- Congressman Mark DeSaulnier
- State Senator Henry Stern

### **ORGANIZATIONS AND FOUNDATIONS**

- Physicians for Social Responsibility-Los Angeles
- Committee to Bridge the Gap
- Southern California Federation of Scientists
- Natural Resources Defense Council
- Los Angeles Audubon Society
- Consumer Watchdog
- Rocketdyne Cleanup Coalition
- Parents Against the Santa Susana Field Lab
- Susana Knolls Homeowners Association
- The Peoples' Senate
- Teens Against Toxins
- California Democratic Party
- Ventura County Democratic Party

### **BOEING'S VERSION OF THE CLEANUP**

Boeing states that they have done extensive remediation of the site, but in fact the only cleanup they've begun in 2013 was illegal and recklessly dangerous. Until halted by a lawsuit, they sent:

- 493 tons of metal were sent to Kimco, a commercial recycling facility, Sun Valley
- 2,432 tons of asphalt and concrete were sent to Gillibrand, a commercial material recycling facility, Simi Valley
- 153 tons were disposed of in Class I landfills designed only for chemical, not radioactive wastes.

### **NEXT STEPS**

NASA has recently released their SEIS to 80% of their carcinogenic and toxic waste on the site permanently. We are asking you to please email NASA at **NEED EMAIL PLEASE** before January 8, 2019 to demand they follow their legal obligations to the AOC in order to protect our communities.

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