TRACY AREA NUCLEAR CLEANUP NEEDS YOUR ATTENTION

Lawrence Livermore National Laboratory Site 300 High Explosives Testing Facility

Site 300 is Livermore Lab's high explosives testing facility. It encompasses 11 square miles along Corral Hollow Road, west of downtown Tracy and east of Livermore. Site 300 is part of the U.S. Department of Energy (DOE) National Nuclear Security Administration nuclear weapons complex. Over the years, Tracy has expanded and a major residential development is proposed near Site 300.

Since it was founded in 1955, Site 300 operations have included open-air blasts with high explosives and multiple toxic and radioactive materials used in nuclear weapons. Current operations at Site 300 include contained detonations, open-air blasts, explosive and hazardous waste burning, and radioactive and hazardous waste storage. Prevailing winds blow contamination into the Central Valley, and, particularly, toward Tracy and surrounding communities.

A Superfund cleanup site:

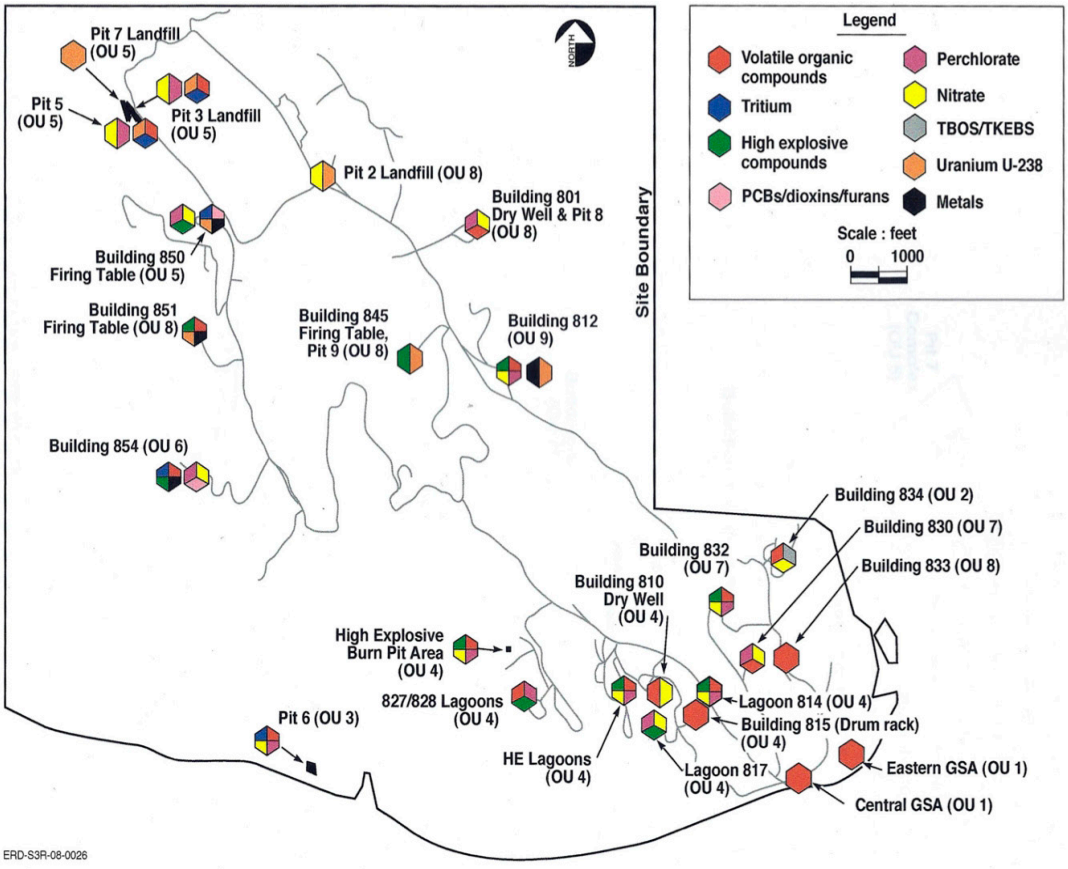
Site 300 activities have polluted soil, surface water, springs and regional groundwater aquifers with a dangerous mixture of chemical and radioactive wastes including solvents, dioxins, furans, PCBs, perchlorate, high explosive compounds, metals, radionuclides, and other hazardous substances. Moreover, an off-site groundwater plume contaminated with solvents has migrated from Site 300, and traveled under Corral Hollow Road and the nearby Corral Hollow Creek.

Another contaminant of concern at Site 300 is Uranium-238, also known as depleted uranium. Uranium-238 is a radioactive metal that is toxic to internal organs and poses increased risks of cancer and other serious or fatal health impacts if inhaled or ingested. At Site 300, Uranium-238 was often used in open-air tests and buried in huge unlined dumpsites. It now contaminates soils and groundwater in multiple locations, and, in some, it exceeds the U.S. Environmental Protection Agency (EPA) benchmark by many hundreds of times.

Another radioactive material used in explosive tests at Site 300 is tritium, the radioactive hydrogen of the H-bomb. Tritium was also buried in huge unlined trenches. Now, there is a tritium groundwater plume that is about two miles long, and its radioactivity is still moving slowly underground. Tritium concentrations have been measured at 100 times the "maximum contaminant level" set by state and federal agencies. Exposure to tritium is associated with cancers, immune system deficiencies, miscarriages, and birth defects, among other serious or fatal outcomes.

Because of the magnitude of this contamination, Site 300 was named in 1990 as a federal Superfund site, meaning it is listed by the EPA as among the nation's most contaminated locations. Livermore Lab recently acknowledged that it is uncertain when cleanup at Site 300 will be completed, if ever. The contamination is widespread and complex, and Livermore Lab estimates that its cleanup at Site 300 will cost around $1.8 billion.

(Turn Over)



Site 300 Cleanup Areas & Contaminants

Big decisions coming up:

The Superfund cleanup at Site 300 is entering a new and important phase that will extend from 2013 through 2015. Cleanup is starting at one of the open-air firing tables that had been used often to detonate nuclear weapons experiments with Uranium-238. The area is called Building 812, and it encompasses about 200 acres in the east-central part of Site 300 (see map). The firing table is located almost directly over an earthquake fault. The hillsides, canyons and groundwater in this area are contaminated, as is a nearby spring.

In soil samples taken 5 feet below the firing table, total uranium has been measured at a concentration of 22,700 picocuries per gram. For comparison, a DOE report lists the proposed soil cleanup standard for uranium at Building 812 as 3.1 picocuries per gram.

The DOE and Livermore Lab have recently undertaken an extensive soil survey in the Building 812 area to determine the geographic extent of the Uranium-238 contamination, and a soil and biotic sampling effort to determine the radioactive material's deposition depth and uptake in plants and animals. Early findings have disclosed that the contamination may be more extensive than originally thought.

New soil surveys are scheduled for later in 2013, and publication of key Superfund documents, including a proposed cleanup plan, have been postponed by about one year. The mandatory public hearing will therefore be postponed until some time in 2015, although important decisions that affect the public may be made before that date.

Some of Tri-Valley CAREs' concerns:

There are serious, unresolved issues in Building 812 cleanup. First, DOE contractors issued a report that suggested that cleanup levels at Building 812 should be relaxed. This called into question whether the cleanup will, in fact, be as comprehensive as possible. Fortunately, additional characterization studies are now in progress and there will be opportunities for public comment before final decisions are made. Second, the Lab plans to only clean up to "industrial" standards, which are more lax than residential standards. Third, Livermore Lab and DOE have not conducted enough outreach to the Tracy community, which will be directly affected if the Building 812 cleanup is not done properly.

While Tri-Valley CAREs supports efforts to better characterize and understand the contamination at the Building 812 area before publishing a proposed cleanup plan, we feel that the delay of a formal public hearing for more than one year, i.e., until some time in 2015, means that the Lab should institute other public involvement processes between now and then. For example, DOE and the Lab could hold a series of informal public workshops. Further, we believe that this public outreach should go beyond the particulars of the Building 812 area to include all of the areas at Site 300 that are part of the Superfund cleanup (see map).

Community involvement is needed:

Currently, the money for cleanup at all of Site 300 hovers at around 1% of the Livermore Lab's annual budget. The budget for addressing the pollution at Site 300 should be adequate, stable and assured over the many decades it will take to complete the job. The Lab must not renege on its obligation to clean up the mess it has made. It's time for the community to insist that the Lab prioritize, properly fund and complete the Site 300 Superfund cleanup.

A victory shows that winning is possible:

In 2006, Livermore Lab quietly set out to ramp up high explosive testing at Site 300. The Lab sought a new permit from the air pollution control district to increase the annual explosives limit at Site 300 eight-fold, from 1,000-pounds of explosives in the blasts to 8,000-pounds. A Tracy business owner, Tri-Valley CAREs and colleagues at Earthjustice challenged the permit application. Our challenge resulted in an outpouring of public opposition to the permit. As a result, the air district demanded more information from the Lab. And, the final outcome? Livermore Lab withdrew its permit application and closed several of the firing tables where the bigger, even more toxic, open-air tests would have occurred. One of the bomb testing areas where additional contamination would be happening today if we had not stopped the permit is the Building 812 area!

Community involvement truly made a difference in achieving this victory – and your involvement now can help create the next environmental success story!

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