Cleaning up a "Firing Table"

"Firing tables" are outdoor, gravel based detonation pads on which Livermore Lab has (and still does) set off bomb blasts to test how well a new or modified design performs.

These blasts often include Uranium-238 (called depleted uranium or DU), which is a triple threat to health, as it is radioactive, a toxic heavy metal and also a chemical health hazard. These open-air blasts contain up to 60 additional hazardous and radioactive materials.

The materials that have been detonated go to three places: the air, nearby springs or streams and into the ground itself, where they percolate down to the groundwater aquifers.

Livermore Lab has been conducting open-air tests since 1955 at Site 300, located in the hills between Livermore and Tracy. In 1990, Site 300 was placed on the EPA Superfund list of most contaminated sites in the nation.

The Superfund cleanup at Site 300 is entering a new and important phase. The Lab is about to tackle cleanup at one of the open-air firing tables often used to detonate DU. This particular firing table was taken out of service in 2009. The area is called Building-812, named for the structure that housed the cameras and other equipment to record the blasts.

The Building-812 cleanup encompasses about 200 acres in the east-central part of Site 300. The firing table is located almost directly over an earthquake fault that appears to intersect with the nearby Elk Ravine Fault.

Some blasts on this firing table were bigger than a house. High explosives were wrapped around a DU core (used as a substitute for fissile materials such as plutonium-239). After the shot, the contaminated firing table gravel was often dumped into the canyons. 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 22,700 picocuries per gram. In surface soils, total uranium has been measured at 93 picocuries per gram. To offer a comparison, a recent Dept. of Energy (DOE) report lists the proposed soil cleanup standard at Building-812 for Uranium-238 as 3.1 picocuries per gram. The standard for Uranium-235 (also found in the area) is lower, 0.42 picocuries per gram.

In groundwater, total uranium also exceeds regulatory limits Continued on page 3
Print Bites: All the News that Fits to Print

Final bio-brief. On June 24, we submitted our final brief to the US Court of Appeals in its challenge to the faulty environmental review produced for the Livermore Lab bio-warfare research facility, which is designed to conduct aerosol (spray) experiments on small animals with anthrax, plague, Q fever and other deadly pathogens, including ones that have been genetically modified. Tri-Valley CAREs asked the Court to order a full Environmental Impact Statement and to suspend the facility’s operation until it complies. The Ninth Circuit Court of Appeals will hear oral argument in the coming months. To check out our legal briefs go to http://www.trivalleycares.org/new/litigation.html

Tornado, fire & flood. On June 23, a tornado touched down 100 yards outside of the Y-12 nuclear weapons facility in Oak Ridge, TN. On June 27, the Las Conchas wildfire burned toward 20,000 barrels of nuclear waste and other toxic hazards at the Los Alamos Lab in NM, forcing an evacuation. Also in June, the Missouri River flooded the Fort Calhoun Nuclear Power Plant in NE. On the heels of Fukushima, could nature be telling us something about nuclear technologies?

As fire raged, a new bomb plant. Tri-Valley CAREs submitted comments on the government’s inadequate Draft Supplemental Environmental Impact Statement for a new plutonium bomb plant, called the CMRR-Nuclear Facility, proposed for the Los Alamos Lab. Estimated costs for the project have skyrocketed to around $6 billion (and still climbing). The new plant is being built to support production of up to 80 new plutonium bomb cores per year. See our comments at http://www.trivalleycares.org/new/comments.html

Mayors’ resolve. At its annual meeting on June 20, the US Conference of Mayors passed a resolution, introduced by Oakland Mayor Jean Quan on behalf of Mayors for Peace, calling for nuclear disarmament to free billions of dollars to address unemployment in America’s cities. The resolution instructs President Obama to join leaders of the other nuclear weapon states to implement the UN Secretary-General’s 5-point plan to negotiate the elimination of nuclear weapons by the year 2020. The resolution further calls on Congress to terminate funding for modernization of the nuclear weapons complex and weapons systems.

Your tritium is leaking. The Associated Press (AP) found there are tritium (radioactive hydrogen) leaks at three-quarters of U.S. commercial nuclear power sites, often into groundwater from corroded, buried piping. AP also found the number and severity of the leaks has been increasing, even as federal regulators extend the licenses of reactors. Tritium has leaked from at least 48 of 65 sites, and leaks from at least 37 of those facilities contained concentrations exceeding the federal drinking water standard - sometimes at hundreds of times the limit.

Diablo Canyon hears a no. On June 7, the Nuclear Regulatory Commission ordered a 52-month delay in the early lease renewal process at CA’s Diablo Canyon nuclear power plant. The Order vindicates the San Luis Obispo Mothers for Peace position that PG&E’s September 2009 application for lease renewal was premature. The current operating licenses for Diablo Canyon’s two nuclear reactors expire in 2024 and 2025, respectively. PG&E applied in November 2009 to continue operations until 2044/2045.

Fresno nuclear proposal. On June 7, the Fresno County Board of Supervisors voted to withhold support for two nuclear plants, proposed ostensibly to desalinate water as part of a new “clean energy park.” Our congrats to the activists and groups who testified against the plan and to the Supes who listened.

Wednesday, August 3
Bay Area Premiere
The Forgotten Bomb
Potluck at 6:30 PM
Film at 7:30 PM
Q&A with Director
Stuart Overbey follows
(For details, see page 3)
Dear friend of Tri-Valley CAREs,

As the group's executive director, I've written you often about the terrible effects of nuclear pollution in our communities, the need to stop new nuclear weapons, and the positive vision you and I share of a more just and peaceful world.

Today, I'm writing to tell you about a fabulous opportunity we have in front of us. One of the loyal supporters of our programs that "watchdog" Livermore Lab has offered to match your gift to Tri-Valley CAREs this summer, dollar for dollar, up to $15,000!

I'm excited to have this kind of challenge instead of the bad kind. And, I trust that you're as happy as I am to find out that your donation will be doubled.

Your contribution of $50 now will be worth $100 to Tri-Valley CAREs. Your generous $1,000 gift will become $2,000. And, $10 will turn into a $20 bill - but only if we reach that $15,000 goal. Can I count on your help?

Among the many things you know about Tri-Valley CAREs is that we have a history of reaching goals. We have stopped radioactive waste incinerators from being built and prevented the weapons designers from creating a new "Robust Nuclear Earth Penetrator" bomb, a submarine-launched "Reliable Replacement Warhead," and other deadly new nukes.

Tri-Valley CAREs has ensured that leaking barrels of toxic waste at Livermore Lab got cleaned up and that the community had a place at the table in decision-making. Our actions have resulted in major changes to federal laws, including those governing environmental protection, justice for dying workers and government accountability.

I am proud of our many achievements. But, you and I also recognize the length of the road ahead – and the importance of the work that remains. It is for this that I ask your partnership and support.

Your donation to Tri-Valley CAREs will be put to good use in our crucial efforts to stop the "modernization" of the nuclear weapons stockpile – and the new bomb factories that would be used to create and manufacture these horrific new nuclear weapons.

Your contribution now will help me attend a strategy meeting in DC with other groups focused on the military budget at the end of the month. And, while I’m in Washington, I will follow up on meetings that your Tri-Valley CAREs team and I conducted this spring with members of Congress.

(turn over)
We can already see glimmers of success. We advocated removing all “loan guarantees” for new nuclear power plants while we were there, and congressional committees are in the process of passing bills to zero out these funds. Moreover, I can tell you that House appropriators used the analysis we provided in our budget report to cut funding for nuclear weapons, albeit not as much as we would like.

Yet, I must also tell you that other congressional committees are poised to put nuclear pork back in the budget. (Yes, this illustrates one reason why Tri-Valley CAREs stays vigilant and keeps on following up!).

Your gift – doubled if you contribute during this challenge – also builds a strong grassroots movement locally. For example:

◆ On August 3, Tri-Valley CAREs and friends will bring a stunning new film, “The Forgotten Bomb” and its director to the Bay Area.

◆ On August 6, Tri-Valley CAREs, allied groups, and hundreds of activists will “Confront the Two-Headed Dragon of Nuclear Weapons and Nuclear Power” at Livermore Lab. And, on August 9, we will return to the Lab’s West Gate.

◆ On August 13, Tri-Valley CAREs’ board, staff and volunteers will construct the community-based strategic plan that will guide our actions in the coming year.

◆ On August 23, Tri-Valley CAREs will hold a daylong meeting on the Superfund cleanup of toxic and radioactive pollution at Livermore Lab.

Further, your contribution aids our litigation against both the Lab’s bio-warfare experiments and their habit of violating the Freedom of Information Act.

Indeed, it is Tri-Valley CAREs’ 28-year record of successful programs like these that inspired our friends at Colombe Foundation to volunteer to match dollar for dollar any amount you give, up to $15,000. But we must accomplish that goal this summer.

I’m counting on your financial help to meet this challenge. It is an incredible opportunity for us and for all of our work. Please give as generously as you are able. Your gift will be warmly welcomed and promptly put to good use.

For peace, justice and a healthy environment,

Marylia Kelley

P.S. Your tax-deductible contribution, sent now, will be doubled. Don’t risk putting this letter aside and losing it. Please send your donation today.

P.P.S. You may also get your donation doubled on-line at www.trivalleycares.org where we have set up a secure portal for credit card contributions. And, we will also post regular updates to show our progress toward achieving the $15,000 challenge and thank our generous supporters – including you!
A note for you from acclaimed author, systems thinker and deep ecologist, Joanna Macy

I first became acquainted with Tri-Valley CAREs in 1991 when I participated in a forum the group sponsored. The following year, my husband, Fran, invited Marylia to present on the U.S. nuclear weapons labs at an historic conference on nuclear development held in Chelyabinsk in the former U.S.S.R. Fran then joined the Tri-Valley CAREs Board of Directors, on which he served until his death.

In my 20-year relationship with Tri-Valley CAREs, I have long-admired the group’s careful research and thoughtful analysis. They have maintained a deep fidelity to environmentally sustainable principles, all the while speaking equally to Livermore scientists and community members alike.

Tri-Valley CAREs’ effectiveness never ceases to amaze me. The group’s hallmark is that they get things done! Laws are changed, budgets for cleanup are raised, and the need for cleanup at other polluted nuclear weapons sites gains attention. Tri-Valley CAREs’ actions also created opposition to the Reliable Replacement Warhead program at Livermore Lab. They convinced the Congress to cut the program’s budget, and that led, finally, to President Obama’s opposition to it.

I am immeasurably grateful for the ongoing inspiration and example of responsible citizenship that Tri-Valley CAREs and its executive director, Marylia Kelley, have provided to us all.

It is for these reasons and more that I count myself among Tri-Valley CAREs’ most loyal donors. I invite you to join me in contributing to this exemplary organization.

The New York Times

... Officials say the radiation risks to people living in the surrounding area and to Lawrence Livermore researchers not involved with the [National Ignition Facility] experiments will be negligible...Tri-Valley CAREs, a watchdog group that monitors Lawrence Livermore, argues that the National Nuclear Security Agency, which financed construction of the facility, should not allow an increase in the amount of radiation produced by the fusion project. “There is no safe level of exposure,” said Marylia Kelley, the group’s executive director. ...

Researchers... propose nearly tripling the amount of laser power to... roughly the equivalent amount of energy produced by 50 pounds of TNT, which will increase radiation levels. The types of hydrogen that will be fused are called deuterium and tritium. Tritium is radioactive and... officials have proposed bypassing the filters during some experiments and venting tritium through an exhaust system into the air.

...Tri-Valley CAREs points to a long list of tritium accidents and airborne releases from Livermore facilities, which have caused radioactive material to accumulate in Livermore’s water, food, honey and wine. “When tritium gets into the environment and it’s on top of radiation being released from other parts of the laboratory, it potentially increases the dose and potentially increases the risk,” Kelley said. (Read the full NYT article at www.trivalleycares.org)
Maximizing your impact: a call to action for all!

*Tri-Valley CAREs*

Respected, Effective and Tabling at the MUSE Concert!

Tri-Valley CAREs, a watchdog non-profit organization in Livermore, filed its “reply” brief with the Ninth Circuit Court of Appeals Friday, June 24, 2011. This is Tri-Valley CAREs’ final submission in the group’s National Environmental Policy Act (NEPA) case against the Department of Energy (DOE) over operation of a Biosafety Level-3 (BSL-3) facility at Lawrence Livermore National Laboratory. Dates for oral arguments are anticipated soon.

Tri-Valley CAREs is requesting the Ninth Circuit Court of Appeals to order a full Environmental Impact Statement for the BSL-3 with a new public comment period, as well as the suspension of operations at the BSL-3 until the DOE & NNSA are in compliance with NEPA.

The Lab’s BSL-3 facility has the ability to perform aerosol spray experiments on small animals with pathogens such as live anthrax, Q fever, botulism, and many other bio-agents and toxins, including ones that have been genetically modified... Additional concerns have arisen... due to the failed safety and security incidents at the bio-facilities, such as a shipping accident involving live anthrax... as well as a CDC-restricted, illegal experiment Livermore conducted wherein an antibiotic resistance strain of Plague was developed. (*Full Independent article is available at www.trivalleycares.org*)

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**Tri-Valley CAREs**

**YES! I want my tax-deductible donation **Doubled!!** I am contributing...**

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Saturday, August 13

Tri-Valley CAREs’ Planning Retreat
10 AM - 4 PM, United Christian Church
1886 College Ave., Livermore
(925) 443-7148 RSVP REQUIRED

Join us for this annual retreat to consider - and plan - how Tri-Valley CAREs can best implement its vision over the coming year. (See page 2 for more.)

Thursday, August 18

Tri-Valley CAREs meets
7:30 PM – 9 PM, Livermore Library
1188 So. Livermore Ave.
(925) 443-7148 for details

Our August meeting will feature updates on nuclear weapons, Livermore Lab, radioactive waste cleanup, and what our members can do to create change in the community and in the world. We will report on our recent events, and more. Tri-Valley CAREs meets the third Thursday of the month, except December (when we have a party!). So, circle your calendar now for our September 15th meeting, too.

Saturday, August 27

Auction to benefit Tri-Valley CAREs
2 PM to 5 PM, Awaken Chiropractic
3515 Grand Ave., Oakland
(415) 990-2070 for details

Dr. Kenda Burke & Dr. Armene Lamson have coordinated health practitioners, artists, and others to donate one-of-a-kind items and services for a silent auction to benefit Tri-Valley CAREs. This family friendly event will include snacks, beverages, chair massage and lots of great deals. There will also be a raffle for awesome door prizes.

Tuesday, August 9

Ceremony and Direct Action
8 AM, Livermore Lab West Gate
Vasco Rd., south of Patterson Pass Rd.
(925) 443-7148 for details

On Nagasaki Day, activists will gather at a main entrance to Livermore Lab in peaceful opposition to the continuing research and development of nuclear weapons. Those who wish will nonviolently risk arrest. Taiko drummers and other guests will join us at the gate.

Cleaning... Cont. from p. 1

as does Uranium-235. Additionally, nickel and copper exceed ecological screening goals. Other potential contaminants of concern in the area are Radium-226 and lithium.

Livermore Lab is presently beginning a gamma radiation survey of soil at Building-812. Its purpose is to better characterize the DU contamination and to determine if there are any areas that do not require cleanup. Tri-Valley CAREs has long supported additional characterization for this and other areas at Site 300.

Our concerns are focused on serious, unresolved issues in the cleanup. First, DOE has issued a report that suggests that cleanup levels at Building-812 should be relaxed. Allowing contamination to stay in place is not cleanup. We will be watching this issue closely.

Second, and related, while there is an overall “background” level for uranium established for Site 300, the plan is to establish a more specific “background” for the Building-812 area. We see this as a crucial point because background measurements are used in determining additional risks – so, if a high background number is chosen, there will be fewer areas cleaned up (and potentially to a lesser standard).

Third, the Building-812 area will only be cleaned up to “industrial” standards, which are more lax than residential standards. This will limit any future, non-weapons uses for this part of Site 300. And, furthermore, it is not yet clear how groundwater and sediments (e.g., not soil) will be characterized. Nor is it clear yet what remediation techniques will be used for the cleanup.

Tri-Valley CAREs’ staff are available to come and speak about the Superfund process to your group – or at a house party of your friends and neighbors. Contact us, too, about a community meeting we are planning for this fall. We have also posted a technical memo on the Building-812 cleanup process for you at www.trivalleycares.org.
The Dept. of Energy, Office of the Inspector General (IG) recently released an audit, “Implementation of Beryllium Controls at Lawrence Livermore National Laboratory” revealing safety gaps, management failures and incomplete “actions necessary to... resolve previously observed weaknesses” in implementing beryllium hazard controls at the Lab.

Specifically, top oversight and management officials at Livermore Lab had closed out “corrective actions” — required to protect employees from beryllium contamination — without actually implementing the actions.

According to the IG, “Since 2007, Livermore has had at least seven reportable [beryllium] events, two of which occurred within the past year.” Tri-Valley CAREs has documented that more than 200 workers have been exposed to beryllium at the Lab over the past five years.

Beryllium is a potentially deadly toxic metal used in the research and development of nuclear weapons. Due to the history of beryllium use at Livermore Lab and the risks it poses, Lab management is required to implement a legally compliant Chronic Beryllium Disease Prevention Program (CBDPP).

The IG conducted the investigation because Lab management had previously been fined $200,000 (in 2010) for multiple failures to comply with the law governing its CBDPP. Subsequently, Lab management reported that it had completed the required corrective actions. This IG audit was to “determine whether Livermore had implemented effective beryllium controls to resolve previously identified weaknesses.”

The IG stated, “Livermore officials told us that they had completed corrective actions to communicate beryllium hazards, in part, through the use of facility maps, however, we determined that although it had developed the maps, Livermore had not posted the maps in any of the seven known beryllium facilities that we toured.”

According to the IG, the failure to post accurate information resulted in workers unknowingly entering beryllium-contaminated areas without proper protective equipment, including a September 2010 “event in which a technician was potentially exposed to beryllium while performing preventative maintenance on facility-related equipment.”

The report also said, “The corrective actions related to training [deficiencies] were closed based on the establishment of training requirements, but without determining whether all employees were actually trained.” In one instance cited in the report, “We found approximately 25% of the Environment, Safety & Health managers did not attend the training class on new procedures”

The IG report is full of examples of serious and, apparently, willful noncompliance with the law.

Our Staff Attorney, Scott Yundt, noted, “The IG report validates our findings that Livermore Lab has consistently failed to implement proper safeguards to protect workers from beryllium. The pattern we have seen is one in which management pays lip service to establishing a safety culture when it is caught red-handed contaminating its workers, then continues with business as usual when the investigators go home.”

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