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NO REGULATORY CONCERN OVER 1998 BIG TREES SAMPLING DATA

LIVERMORE, Calif. — The results of the 1998 sampling of Big Trees Park for plutonium by the U.S. Department of Energy's Lawrence Livermore National Laboratory show no risk to the public or the environment. This confirms the findings of the Lab's 1995 sampling program in the park. Overall, the 1998 sampling found lower plutonium concentrations than the earlier study. The results also show that the plutonium was most likely introduced into the park when sewage sludge containing low levels of contamination was used as a soil amendment on ornamental trees in the park. There was no data to support an air or water pathway to the park from the Laboratory.

After reviewing the study data, the U.S. Environmental Protection Agency announced that all of the samples taken in the August 1998 sampling of Livermore's Big Trees Park showed levels of plutonium below the level of concern for residential soil.

The study data shows that most of the samples were at or near background levels or below the level of detection. No values of plutonium above background from global fallout were found at the Arroyo Seco School or in the disked area adjacent to the school. No significant concentrations of plutonium were found in the subsurface soil in the park.

The highest plutonium value found in the 1998 sampling was 0.774 picocuries per gram at one location, less than a third of the EPA's level of concern for residential soil of 2.5 picocuries per gram. This is comparable to the 1.02 picocuries per gram found at one location in the 1995 sampling. All other values were much lower.

Analysis of the 1998 sampling data by Lawrence Livermore National Laboratory's Environmental Protection Department supports the hypothesis that sewage sludge is the source of the slightly elevated levels of plutonium found in the northeast corner of Big Trees Park in 1993. Based upon the historical investigation of plutonium in sewage sludge and on the extensive sampling and

analysis of Big Trees Park soils in 1995 and 1998, LLNL believes the findings of plutonium at Big Trees Park would be generally representative of plutonium levels in soils where sewage sludge was used as an amendment.

The Laboratory scientists found that tree wells of ornamental trees planted in the park in the 1970s show higher plutonium concentrations than those found outside the tree wells. The scientists also found the tree wells held statistically higher levels of metals commonly associated with sewage sludge than soil outside the tree wells. This effort was designed to determine the pathway for plutonium to the park and it included sufficient data for LLNL scientists to characterize the plutonium source as sewage sludge, apparently used as a soil amendment on the ornamental trees.

Historically LLNL has released plutonium at levels below regulatory limits to the sanitary sewer with the single largest known discharge in 1967. The Lab effluent was processed into sludge at the City sewage plant. The sludge was available to the public as a soil amendment through the 1970s. Historic and current testing at the sewage plant continues to show plutonium levels to be below regulatory limits. These tests are confirmed by regulatory agency oversight and the results are available to the public through LLNL environmental web sites and publications. Very small amounts of plutonium enters the sewer today, usually as the result of dislodging remnants of historic releases during sewer cleaning operations or as minor discharges from treatment operations.

This analysis by the Laboratory will be shared with the Agency for Toxic Substances and Disease Registry, which will conduct its own independent study. The Agency is conducting an overall health assessment of the Laboratory.

The 1998 analytical data from the Big Trees Park sampling may be accessed directly through <<http://www-erd.llnl.gov/bigtrees/>> or by calling Bert Heffner, the Lab's Environmental Community Relations Manager at (925) 424-4026.

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Laboratory news releases and photos are also available electronically on the World Wide Web of the Internet at URL <http://www.llnl.gov/PAO> and on UC Newswire.