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Office of the Director

January 29, 1997

Dear Community Member:

I am writing to you concerning recent information that was released by Brookhaven National Laboratory regarding tritium contamination. Tritium was found in the ground water near a facility at the Lab called the High Flux Beam Reactor. I am enclosing a briefing page which gives you details of the events that led up to the discovery of this contamination and a map that shows where it was found. Also, I am enclosing an article that was printed in the "Brookhaven Bulletin," an employee newsletter, which may be helpful in answering any questions that you may have.

The Laboratory and the Department of Energy is working with federal, state and local agencies, as well as elected officials to ensure that everyone is briefed concerning this investigation. I will be keeping you informed periodically as the investigation continues. If you should have any questions or concerns, please give me a call. I can be reached at the above phone number, Monday through Friday, between 8:30 a.m. and 5:00 p.m.

Sincerely yours,

Kathy Geiger

Kathy Geiger
Community Relations Liaison

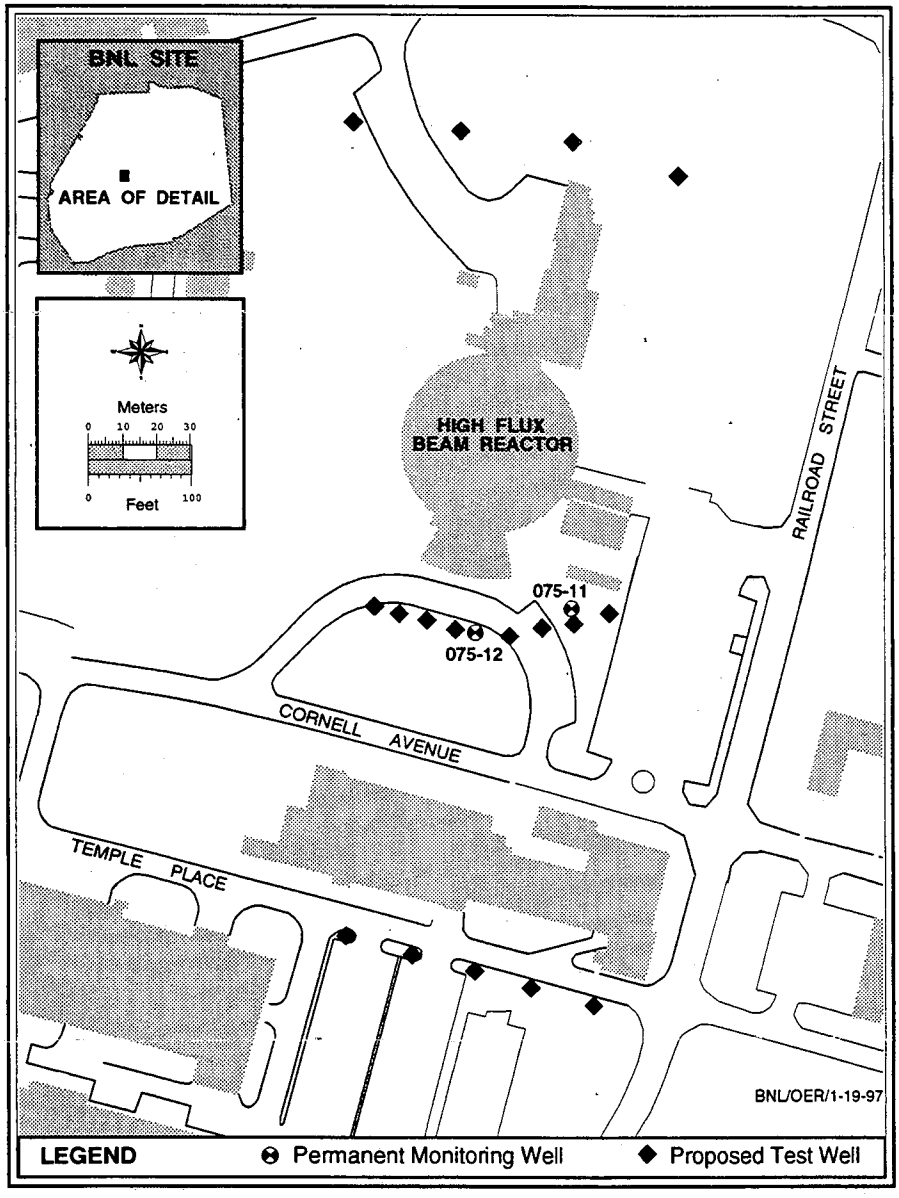
Enclosures

Brookhaven National Laboratory Briefing Page

Tritium in Groundwater Near BNL Reactor — A Timeiine

January 29, 1997

On January 18, 1997, the U.S. Department of Energy and Brookhaven National Laboratory announced that routine monitoring had revealed the presence of tritium in groundwater at the center of the BNL site, just south of one of the Lab's two research reactors (see map). The highest concentration measured was about twice the New York State Drinking Water Standard of 20,000 picocuries per liter.



BNL and off-site community supply wells are not in danger of being contaminated. On-site supply wells located north of the reactor are in the opposite direction of groundwater flow. Although groundwater flows in a southerly direction, the Lab's border is 1.5 miles away from this contamination. Homes located along the southern boundary of BNL are connected to public water.

Tritium, a radioactive isotope of hydrogen, is produced during operations of the Lab's High Flux Beam Reactor. The source of the tritium found south of the High Flux Beam Reactor has not been determined at this time, but the investigation is focusing on the reactor and other facilities in the area. EPA representatives have visited BNL and are doing split samples as an independent check on sample analysis.

Following is a chronology of events leading to the January 18 announcement, and a summary of actions DOE and BNL have taken and intend to take to determine the source and extent of the tritium:

August, 1996: As part of BNL's site-wide groundwater monitoring program, two monitoring wells, numbered 75-11 and 75-12, are installed approximately 100 feet south of the reactor. They extend to about 60 feet below the land surface, or about 10 feet into the water table. Of the approximately 500 wells in the Lab-wide monitoring program, these two wells are part of the semi-annual sampling program.

October 17, 1996: The two wells are sampled for the first time. Samples are sent to BNL's on-site laboratory for analysis. Analysis results are normally received about six weeks following the sampling, due to the extent of the Lab's monitoring program.

December 5, 1996: The results from this first round of testing show 454 picocuries/liter of tritium in the sample from well 75-11 and 2,520 picocuries/liter of tritium in the sample from well 75-12. Although the highest level of tritium found is well below the drinking water standard, an additional round of sampling is planned.

December 11, 1996: Both wells are sampled again.

December 21, 1996: The reactor completes an operating cycle and is shut down for routine maintenance and refueling. A mid-January re-start is scheduled.

January 8, 1997: The results from the December 11th samples show tritium levels of 2,110 picocuries/liter in well 75-11 and 44,700 picocuries/liter in well 75-12.

January 9, 1997: Both wells are sampled again, and an overnight analysis is done on-site to confirm the January 8 results as quickly as possible.

January 10, 1997: The January 8 results are confirmed. The tritium level in well 75-11 measures 6,880 picocuries/liter. The level in 75-12 declines to 37,600 picocuries/liter. The decrease might be attributable to an estimated 10 percent margin of error in the analysis process.

January 14, 1997: The wells are sampled for a fourth time.

January 16, 1997: The Laboratory initiates notification of regulatory agencies overseeing the Lab's operation (U.S. Environmental Protection Agency, New York State Department of Environmental Conservation, New York State Department of Health, and Suffolk County Department of Health Services). Local officials are notified by telephone.

January 17, 1997: Results from the fourth round of sampling show tritium levels of 4,310 picocuries/liter in 75-11 and 43,800 picocuries/liter in 75-12. An on-site briefing is held for public officials and local agencies. Lab employees are notified by e-mail and memo.

January 18, 1997: Press release is distributed and first of 17 test wells is drilled to investigate the groundwater contamination.

Over the next few weeks, the Lab will be investigating potential sources of the tritium and drilling additional monitoring wells as part of that investigation. To better understand the extent of the tritium contamination, seventeen additional temporary monitoring wells are planned for the areas immediately north and south of the reactor.

For more information, please contact:

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