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The Honorable Jeff Bingaman  
United States Senate  
Washington, D.C. 20510

Dear Senator Bingaman:

Thank you for your letter of October 29, 2007, inquiring about estimates of the cost and time that might be required to analyze cancers related to nuclear tests in Trinity, New Mexico, in 1945. It is my understanding that staff of the National Cancer Institute (NCI) have been in contact with Dr. Jonathan Epstein of your staff, and that NCI was able to provide an analysis of the 1945 Trinity Test in response to your request.

NCI has provided rough dose estimates to the thyroid and to red bone marrow of representative individuals assumed to have resided in any of the ranches, farms, camps, and towns located within 30 miles of Trinity Site ground zero as well as in other towns of New Mexico. This work assumed that the representative individuals have resided in the same location during their lifetime and that their lifestyle and dietary habits are average. Several age groups were considered, from newborn to adult at the time of the Trinity test. The dose estimates were based on information on exposure rates that is publicly available. As noted in item 1 of your letter, NCI provided a description of the scientific consensus regarding the maximum limit of the latency period for radiogenic illnesses. This information and the results of the calculations were provided to Dr. Epstein on February 11, 2008.

The second item of your letter requests an estimate of the range of baseline risks for radiogenic illnesses. However, NCI cannot provide quantified information about the numbers of health effects and baseline risks for those diseases in the affected area. Baseline disease risks cannot be estimated without knowing the demographic characteristics of the exposed population. Any effort to investigate historical databases from which past population data may be drawn could take several years. Further, baseline rates for non-cancer diseases (e.g., benign thyroid diseases) are difficult to estimate without a disease registry. To our knowledge, there are no disease registries for conditions other than cancer, and the New Mexico cancer registry was not started until 1973.

I hope the information provided by NCI is useful. Please let me know if I can be of any further assistance.

Sincerely,

Charles E. Johnson  
Assistant Secretary for Resources  
and Technology