REDACTED VERSION

State of New Jersey
DEPARTMENT OF HEALTH AND SENIOR SERVICES
CANCER EPIDEMIOLOGY SERVICES
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JAMES E. McGREEVEY
Governor

www.state.nj.us/health

CLIFTON R. LACY, M.D.
Commissioner

July 13, 2004

Redacted - Privacy Act

Dear Redacted - Privacy Act,

This letter is a follow-up to our recent telephone conversation in which you expressed concern about the occurrence of non-Hodgkin lymphoma (NHL) in both of your daughters and Hodgkin disease in your nephew, all of whom spent a portion of their childhood in Wayne, New Jersey. First, let me say how sorry I am to hear how cancer has affected your family. I can understand how worried you must be and I hope the following information will be of help to you.

You mentioned that your youngest daughter was diagnosed with NHL in her early thirties about eight years ago and your older daughter, who is now deceased, was diagnosed with NHL one year ago in her early forties. You also mentioned that your nephew, who lives in Florida, was first diagnosed with Hodgkin disease several years ago in his early thirties with a reoccurrence one year ago. You mentioned that you raised your family in a neighborhood on Farmingdale Road in Wayne, New Jersey and that your nephew had lived with your family in this neighborhood for ten months at the age of seven. You also expressed concern about the thorium contamination in your old neighborhood in Wayne.

Lymphatic cancer or lymphoma comprises a group of different diseases including Hodgkin disease and several types of non-Hodgkin lymphoma (NHL). Hodgkin disease tends to occur among young people and the various forms of NHL may occur at any age. As a group, NHL is one of the most common cancers and incidence rates are rising in the U.S., including New Jersey. Known risk factors for NHL include reduced immune function due to infectious agents such as human immunodeficiency virus (HIV) and Epstein-Barr virus, as well as inherited immune deficiencies and autoimmune diseases. Therapeutic radiation as a treatment for other cancers is also listed as a risk factor. Occupational exposure to herbicides, pesticides and organic solvents are possible causes of NHL and are still being studied. Hodgkin disease is less common than NHL. Risk factors for Hodgkin disease include infectious mononucleosis and Epstein-Barr virus infection. Possible risk factors include a family history of Hodgkin disease and genetic factors.

As a result of your concern, we reviewed the non-Hodgkin lymphoma and Hodgkin disease cancer incidence data from 1979 through 2002 for Wayne Township, Passaic County and New Jersey. Like New Jersey and Passaic County, there has been a steady increase of non-Hodgkin lymphoma in Wayne over time. Throughout New Jersey much of the increase in non-Hodgkin lymphoma is thought to be related to HIV/AIDS and other immuno-suppressive conditions.

Most scientists believe that only a relatively small proportion of all cancers are related to toxic substances. In order for environmental contaminants to cause cancers, there must be a complete exposure pathway from the source through the environment to directly reach people. However, it is important that State and Federal environmental health standards be adhered to throughout New Jersey and that any violations be rectified promptly.

The 10th Report on Carcinogens, published by the United States Department of Health and Human Services defines thorium dioxide as a known carcinogen, based on studies of people injected with thorium-232 dioxide (Thorotrast). These patients had a higher risk of liver cancer and acute lymphoid leukemia. Workers in the uranium, tin, rare earth, metal and phosphate mining, milling and processing industries, gas mantle manufacturing, and other thorium processing industries are exposed to thorium. Although thorium is widespread in the environment from natural and man-made sources, concentrations in air, soil, drinking water, and foods are very low. The few studies that have investigated daily intake of thorium in the general public estimated low intake from air, food and water.

The Wayne Interim Storage Site (WISS) is a 6 ½-acre site, which from 1948 to 1971 was used to extract thorium and in later years to store radioactive materials. In 1980, elevated radiation levels were found on the plant site and some surrounding areas. Much of the off-site contamination was spread by runoff and water discharges from the site. According to the health assessment of the site conducted by the New Jersey Department of Health and Senior and Agency for Toxic Substances and Disease Registry in 1990, little information is available on the public health effects from the site during the years of operation. Removal and remediation of radioactive contamination for the WISS occurred in several phases beginning in the mid-1980's. Cleanup and restoration was completed for the WISS site in August 2002 and for surrounding properties in August 2003. Please refer to the attached environmental health assessment dated July 30, 1990 and the follow-up report released February 2004 both from the United States Environmental Health Agency (EPA) and a report titled *Cancer Incidence in Proximity to the Wayne Interim Storage Site (WISS) Wayne, New Jersey* from Consumer & Environmental Health Service with the New Jersey Department of Health & Senior Services (NJDHSS). For more information about the WISS, you may contact the Project Manager, Allen Roos, with the United States Army Corps of Engineers at (201) 226-6616 or (212) 264-0120, Michael Berry with Consumer & Environmental Health Services, NJDHSS at (609) 584-4085 and MaryAnn Orapello with the Wayne Health Department at (973) 694-1800.

I am also enclosing excerpts on non-Hodgkin lymphoma, Hodgkin disease, familial factors for cancer and radiation from the National Cancer Institute's publication, *Cancer Rates and Risks,* and the American Cancer Society's publication, *Cancer Facts and Figures-2004,* as well as the non-Hodgkin lymphoma fact sheet from the National Cancer Institute. Also enclosed are our fact sheets on cancer in communities, cancer risk factors, *New Jersey-Facts & Figures, 2002* and an article pertaining to

cancer clusters that may be helpful in understanding the geographic distribution of cancer occurrence. If you would like more information on prevention, early detection and treatment of cancer, here are more phone numbers and websites:

American Cancer Society: 1-800-ACS-2345 or www.cancer.org
National Cancer Institute: 1-800-4-CANCER or www.nci.nih.gov

Please feel free to call me at the Cancer Epidemiology Services with any additional information or questions you may have. I can be reached Monday through Friday between 9:00 a.m. and 5:00 p.m. at (609) 588-3500.

Sincerely,

Pamela K. Agovino

Pamela K. Agovino, MPH
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Enclosures

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