



NEWS RELEASE

CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING

CONTACT:

Dr. Michael Werle
(860) 527-2161

FOR IMMEDIATE RELEASE

January 15, 2001

Study Finds No Link Between Power Plant Emissions and Tumors

Cancer Incidences Unrelated to Proximity to Connecticut Yankee Nuclear Plant

HARTFORD, CT — A newly released scientific study concludes that atmospheric radiation emissions from the now-closed Connecticut Yankee Nuclear Power Plant in Haddam have had no detectable effect on cancer incidences in communities located near the plant or in any other part of the state. The study, conducted by an independent panel of scientists convened by the Connecticut Academy of Science and Engineering at the request of the Connecticut General Assembly's Nuclear Energy Advisory Council, examined cancer incidences in those regions with relatively high exposure from the plant, using data from the Connecticut Tumor Registry. The study is one of the first to use scientific modeling techniques to estimate exposure dosages from normally operating nuclear power plants, then correlate those dosages with specific cancer incidences.

The committee used an atmospheric transport model to estimate radiation exposure doses (called Committed Effective Dose Equivalents, or CEDE) of selected radionuclides in each town in Connecticut over the 28-year period that the plant was in operation. They used data from the Connecticut Tumor Registry to perform a cluster analysis to look for any associations between tumors that could be related to radionuclides released from Connecticut Yankee and the location of communities relative to the plant. Incidences of adult chronic leukemia, pediatric leukemia, multiple myeloma, and thyroid cancer as recorded by the Tumor Registry from 1976 to 1995 were examined, and Geographic Information Systems (GIS) technology was used to create a spatially referenced database from the Tumor Registry data. The committee used information from the 1980 and 1990 US Census to normalize the cancer incidence data.

The report concludes that exposures to radionuclides emitted from the Connecticut Yankee plant are so low as to be negligible. The committee found no meaningful associations among the cancers studied and proximity to the plant. A regression analysis of the calculated doses to the tumor incidence found no correlation. (In comparisons for some tumors, in fact, a negative correlation was found.) Based on these findings, the Academy panel concludes that atmospheric emissions from Connecticut Yankee nuclear power plant have had no detectable influence on cancer incidences, and that further study of this subject is "unlikely to produce any positive correlation."

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The Connecticut Academy is a private, nonprofit corporation patterned after the National Academy of Sciences and chartered by the Connecticut General Assembly in 1976. It is limited by statute to 200 members, who must live or work in Connecticut. One of the principal functions of the Academy is to provide science and technology information and advice on public policy issues, upon request of a government agency or private organization.

The summary and conclusions of this report are available at www.ctcase.org