

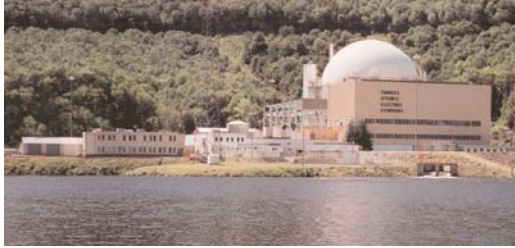


Yankee Nuclear Power Station License Termination Plan

*The plan and process for terminating Yankee Rowe's NRC operating license
June 24, 2004*

Yankee Rowe's NRC License

In 1960, Yankee Atomic Electric Company was issued a license by the Atomic Energy Commission, now the



Yankee Nuclear Power Station 1961-1991

Nuclear Regulatory Commission (NRC), to operate the Yankee Rowe nuclear power plant to produce electricity.

After the plant permanently shut down in 1992, the NRC amended the operating license to only allow possession of used nuclear fuel, preventing any future operation of the plant.

To terminate its NRC license, Yankee must decommission the Yankee Rowe plant, clean the site, and demonstrate to the NRC that the plant site meets the NRC's criteria for release for either unrestricted or restricted use. Yankee Rowe plans, and is working, to meet the lower radiation levels for unrestricted use.

Yankee Rowe's License Termination Plan (LTP)

The NRC has established specific criteria and a process for terminating operating licenses for unrestricted use. These standards apply only to the NRC license. Regulatory criteria established by the Massachusetts State Department of Public Health must be met before the property can be transferred.

To begin the license termination process, Yankee submitted a detailed License Termination Plan (LTP) in November 2003 explaining how residual plant radioactivity on the site will be reduced to levels acceptable to the NRC. The LTP describes how those levels will be measured and verified, and the radiation dose to an average hypothetical person living on the site after the NRC license is terminated.

There are eight sections in the LTP - General Information, Site Characterization, Identification of Remaining Site Dismantlement Activities, Site Remediation Plans, Final Status Survey Plan, Compliance With the Radiological Criteria for License Termination, Update of Site Specific Decommissioning Costs, and Supplement to the Environmental Report.

Public Involvement

The NRC will conduct an extensive review prior to approving Yankee's LTP. In addition, the NRC holds a public meeting and offers the opportunity for a public hearing on the LTP.

Yankee's LTP is available for public review in the Yankee Site Closure Information repository at the Greenfield Community College Library and on the NRC's -www.nrc.gov- and Yankee's -www.yankee.com - websites.

Yankee took additional steps to increase public involvement in the LTP process by providing draft copies of its LTP to the Yankee Rowe Community Advisory Board (CAB), the Franklin Regional Council of Governments, the State Department of Environmental Protection, the State Department of Public Health, and the U.S. Environmental Protection Agency for review and comment prior to submitting the LTP to the NRC. Preliminary comments from these organizations were incorporated into the LTP, as appropriate.



Members of the Yankee Rowe Community Advisory Board (CAB) - which has been meeting since 1998 to monitor decommissioning - toured the Yankee Rowe plant on June 16, 2004 prior to their most recent meeting. Above: CAB members view the progress of the dismantlement of the large white containment sphere.

NRC Release Criteria

The NRC requires that residual plant related radioactivity at a decommissioned nuclear power plant site be reduced to 25 millirem per year, or less, above background radiation levels before terminating the license and releasing the site for unrestricted use. The NRC regulations also require further reducing plant related radioactivity to levels as low as reasonably achievable considering other societal and economic impacts associated with reducing site residual radioactivity. The NRC 25 millirem limit is well below the 100 millirem limit radiation experts have determined is safe for yearly exposure due to non-medical, man-made radiation.

Radiation

Radiation is a natural phenomenon and is found everywhere. We are exposed to naturally occurring radiation every day of our lives from such things as the earth, cosmic rays, radon gas, naturally radioactive foods such as bananas and milk, buildings made of naturally radioactive material such as granite, and even each other, as our bodies are naturally radioactive. We are also exposed to man-made radiation from such things as dental and medical x-rays, medical procedures and televisions. Our exposure to natural and man-made radiation is measured in millirems.

The average person receives about 360 millirems per year from all natural and man-made sources. Of this total, the greatest single source of exposure (an average of 200 millirems per year) comes from naturally occurring radon gas. Certain activities increase our exposure to radiation such as smoking (cigarette smoke contains radioactive particles) or airline travel (radiation exposure is higher at higher elevations). Radiation exposure occurs naturally in different amounts all over the world and is a normal part of our everyday lives.

The 25 millirem per year NRC criterion does not include naturally occurring background radiation, which is always present and comes from the earth and cosmic rays. Background radiation varies from location to location depending on several factors, including the type of the materials in the earth, elevation, whether there's snow on the ground or how much it rains. For example, the terrestrial and cosmic background radiation in a 30-mile radius of the Yankee Rowe plant varies by more than 35 millirems per year.

Demonstrating the NRC Criterion Has Been Met

The LTP assumes that a hypothetical resident farmer will live on the site once cleanup is complete. To determine the hypothetical farmer's yearly radiation dose from residual plant related radioactivity, a computer model are used. The model includes all the possible ways the hypothetical farmer could be exposed to residual plant related radioactivity while living on the site during the course of a year, including eating produce grown in a garden on the site, drinking water from a site well, and drinking milk and eating meat from livestock raised on the site.

Hypothetical Resident Farmer



- Representative of adult male or female
- Lives on the site farm 18 hours a day
- Lives and works on the farm for 30 years
- Grows his/her own food on the site farm
- Consumes water and milk from the farm

Each week the resident farmer eats and drinks:

- 4 3/4 pounds of grains, fruits and vegetables grown on the site
- About a pound of leafy vegetables grown on the site
- 2 3/4 pounds of meat and poultry grown on the site
- About 1 pound of fish raised in a pond on the site
- About 1 gallon of milk from a cow on the site
- About 2 gallons of water from a well on the site

Because the NRC's 25 millirem per year criterion is such a low radiation dose rate and comes from various pathways, it cannot be directly measured. Instead, a computer program developed by Argonne National Laboratory is used to calculate the farmer's yearly radiation dose from residual plant related radioactivity. This calculated dose is translated to radiation levels that instruments can measure in the remaining soil and building foundations to ensure the residual radioactivity is less than the calculated limits. The hypothetical farmer's extremely low exposure will be lowered even further as the residual plant radioactivity naturally decays over time.

License Termination

The actual termination of Yankee's license will not occur until site cleanup is complete, the NRC (or its independent contractor) conducts an independent radiological survey of the area to be released to verify the NRC's release criterion has been met, and Yankee formally requests termination of the license.