

Fact Sheet: Preserving the Connecticut River

On March 30, 2006, the Vermont Agency of Natural Resources (ANR) issued a thermal variance to Entergy Nuclear Vermont Yankee, LLC's (Vermont Yankee's) existing permit. The variance authorized Vermont Yankee to increase the temperature of waste effluent discharged into the Connecticut River. The permit variance, ANR prepared fact sheet and the ANR prepared Responsiveness Summary can be found at the Department of Environmental Conservation web page for wastewater management, <http://www.anr.state.vt.us/dec/ww/Decisions.htm#dptable>.

The Connecticut River

- The Connecticut River is the largest river in New England, spanning 410 miles from its source at the Canadian border to Long Island Sound, and draining over 11,000 square miles in four states (VT, NH, MA, and CT).
- The Connecticut River was once described as "the best landscaped sewer" in America. As a result of protections afforded by the Clean Water Act and state water quality standards, the quality of the river's waters has greatly improved.
- Today, the Connecticut is designated an American Heritage River, one of only 14 so-designated rivers in the nation.
- The Connecticut River Watershed comprises the Conte Wildlife Refuge, a unique 'refuge without walls' concept that can protect all of the areas of significance throughout the watershed.
- In 1994, the United Nations Ramsar Convention designated the estuary of the Connecticut River as a "wetland of international significance" joining the Chesapeake Bay estuary and the Everglades as designated wetlands.
- According to the Connecticut River Joint Commissions' river corridor management plan, "the Federal Clean Water Act, which set a policy goal of 'swimmable, fishable' waters and charged the states with adopting water quality standards, is the primary reason why the Connecticut River is clean today. Maintaining a strong Clean Water Act and effective state implementation are vital to the water quality progress that must continue."

Vermont Yankee

- The Vermont Yankee plant is on a 125-acre site at Vernon, Vermont in Windham County.

- In 2003, Vermont Yankee provided 73% of the total electricity generation for the entire State. According to the 2004 Vermont Electric Plan, this was “about 35 percent of Vermont’s energy requirements and almost 28 percent of the peak capacity requirements of the State.”
- Vermont Yankee holds an individual National Pollution Discharge Elimination Systems (“NPDES”) permit authorizing it to discharge 543 million gallons per day of waste water into the Connecticut River.
- Vermont Yankee reports that its discharge is typically between 80° - 90° F, though on occasion may reach as much as 105° F.

What the Variance Allows

This permit variance allows Vermont Yankee to discharge any amount and temperature of waste effluent into the Connecticut River, provided that the ambient river temperature does not increase more than one degree at a monitoring station. This monitoring station is located 1.4 miles away from the facility. The variance is only in effect between June 16th and October 14th (*see the temperature chart below*).

*During the period **June 16 through October 14**, the increase in temperature above ambient at Station 3 shall not exceed the limits set forth in the following table:*

<i>Station 7 Temperature:</i>	<i>Increase in Temperature Above Ambient at Station 3:</i>
<i>Above 78°F</i>	<i>2°F</i>
<i>>63°F, =78°F</i>	<i>3°F</i>
<i>>59°F, =63°F</i>	<i>4°F</i>
<i></=59°F</i>	<i>5°F</i>

Why the Variance Violates Federal Water Quality Law

The purpose of the federal Clean Water Act is to “restore and maintain the... integrity of the Nation’s waters.” 33 U.S.C. § 1251. The Vermont Agency of Natural Resources (ANR) granted Vermont Yankee’s variance even though:

- Vermont Yankee has not shown that the existing effluent standards are more stringent than necessary to assure protection and propagation of a balanced, indigenous population of fish and wildlife in and on the Connecticut River, as required by the Clean Water Act § 316(a).
- Vermont Yankee has not shown that there has been “no prior appreciable harm” to the biological community in the Connecticut River, as required by EPA regulations. 40 CFR § 125.73 (c)(1).

- Neither Vermont Yankee nor ANR has considered the cumulative impact of the thermal component of the discharge in combination with the intake structure, other discharges to the river, and other sources of stress on the biological community in the river, as required by EPA regulations. 40 CFR § 125.73 (c)(1)(i).
- Vermont Yankee uses a flawed methodology to measure the effect of its discharge on river temperatures that understates the true impact on the biological community of the Connecticut River, particularly the Vernon Pool and Vernon Dam fishway.

Why the Variance Violates Vermont Water Quality Standards

The purpose of Vermont’s anti-degradation policy is to manage all waters in accordance with its rules to “protect, maintain, and improve water quality.” VWQS § 1-03. ANR has a duty to “protect and enhance the quality, character, and usefulness” of the Connecticut River and “seek over the long term to upgrade the quality of waters and to reduce existing risks to water quality.” 10 V.S.A. § 1250.

The agency has not fulfilled this duty because approval of Vermont Yankee’s thermal variance violates (1) the Vermont Water Quality Standards mixing zone provision and (2) the state’s anti-degradation policy.

Mixing Zone: A mixing zone is defined as “a length or area within the waters of the state required for the dispersion and dilution of waste discharges adequately treated to meet federal and state treatment requirements and within which it is recognized that specific water uses or water quality criteria associated with the assigned classification for such waters may not be realized. A mixing zone *shall not extend more than 200 feet* from the point of discharge.” 10 V.S.A. §1251(6) (emphasis added); VWQS §1-01(B)(28).

- The variance granted by ANR requires monitoring 1.4 miles downstream of the discharge, effectively establishing a mixing zone extending from the point of discharge to the monitoring station.
- This 1.4-mile mixing zone is a violation of Vermont Water Quality Standards and essentially allows Vermont Yankee to use the river as an extension of its treatment system.
- Setting the measuring point this far downstream ignores biological impacts at the point source, in the Vernon Pool and beyond, until it reaches the monitoring station.

- ANR offers no explanation of what impacts such a large mixing has on the “balanced indigenous population” present in the Connecticut River; ANR offers no explanation for how or why this mixing zone has been extended, or the factors considered in granting an extension of this mixing zone.

Anti-Degradation Policy: Under Vermont’s anti-degradation policy, the agency is required to perform a socioeconomic balancing analysis before allowing any degradation of Vermont’s high quality waters. VWQS 1-03(C)(2). Because the agency failed to conduct any investigation into the costs and benefits of granting the variance, its decision should be reversed and remanded for further consideration.

- ANR and Vermont Yankee both failed to do any socioeconomic analysis other than stating the economic benefit to the company: the “efficient use of its cooling towers” saves “wear and tear” on the facility, and that the company is an area employer.
- There is no question that Vermont Yankee can operate economically and still meet existing permit conditions, as demonstrated by its current operation.
- ANR failed to balance its conclusions with any analysis of the socioeconomic benefits of maintaining the Connecticut River.

Why the Variance Violates Vermont’s Open Meetings and Open Records Laws

ANR relied upon recommendations of the Environmental Advisory Committee (EAC) in approving the variance. The EAC is composed of representatives from several Vermont, New Hampshire, and federal agencies. Its purpose is to assist the agency in making technical determinations.

- ANR admits that the representative important species list used in the variance determination was adopted at the suggestion of the EAC.
- The EAC has no representation from the public, its meetings are not open to the public; and
- Records of its deliberations relative to this decision were not made available for review during the public comment period.

Vermont’s Open Meeting Law requires that meetings of a public body be open, that the public be given notice of the meeting, and that the public be allowed to attend and be heard. The Open Meeting Law applies to all state agencies and their instrumentalities, including subcommittees. 1 V.S.A. § 310 *et seq.*

Vermont's Access to Public Records Law requires that "any person may... inspect or copy any public record or document of any agency of the state or political subdivision..." 1 V.S.A. § 316. Upon request any state agency is required to produce such documents. 1 V.S.A. § 317.

Vermont has a history and tradition of open government and citizen access to government meetings and records. ANR's decision should be invalidated because it failed to allow full public participation in this important decision.

About CRWC: The Connecticut River Watershed Council is a 1,000 member non-profit advocate for the 11,000 square-mile watershed of the Connecticut River emphasizing fisheries restoration, erosion prevention, land conservation, and water quality since 1952. For more information about our mission and to become a member, please visit www.ctriver.org.

About Trout Unlimited (TU): Trout Unlimited's mission is to conserve, protect and restore North America's trout and salmon fisheries and their watersheds. TU accomplishes this mission on local, state and national levels with an extensive and dedicated volunteer network. The local chapter working on this permit variance appeal is the Deerfield/Millers Chapter 349 based in Massachusetts.

About Citizen's Awareness Network (CAN): CAN is a multi-state non-profit organization founded in 1992. It began as a group of concerned citizens organizing to protect their community from a nuclear meltdown. Today, CAN hosts seven chapters in five states, envisioning a future of safety, prosperity, and health for all in which people generate their own electricity in their homes and communities.

About the ENRLC: Vermont Law School's Environmental and Natural Resources Law Clinic builds on the law school's expertise in environmental and natural resources law and its extensive connections throughout the local, regional, and national conservation communities. Student clinicians work on behalf of public interest, environmental, and conservation organizations, and learn how to find their way through the complex maze of laws and procedures that regulate economic development and resource extraction activities.