

VERMONT LAW SCHOOL



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Deborah Markowitz, Secretary
Vermont Agency of Natural Resources
Center Building, 103 South Main Street
Waterbury, Vermont 05671-0301
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VIA ELECTRONIC MAIL

Dear Secretary Markowitz:

Connecticut River Watershed Council submits the attached report, *Review of Vermont Yankee Thermal Discharge Permit Requirements & Analysis of Connecticut River Water Temperature & Flow*, in connection with the NPDES permit renewal process for the Vermont Yankee nuclear power plant. The report is authored by HydroAnalysis, Inc., which also authored our previously submitted report, *Review of Vermont Yankee Thermal Discharge Modeling* (Feb. 6, 2012).

The report has two major findings. First, the equation used to calculate compliance with the temperature limits in Vermont Yankee's existing NPDES permit (Equation 1.1) is inappropriate because it improperly assumes complete mixing of the thermal discharge in the Connecticut River. Second, actual ambient temperatures in the fishway and at the downstream monitoring station are routinely several degrees higher than the NPDES-permitted temperatures, with temperature rise extending at least 22.5 miles downstream.


We provide the following recommendations as identified in the report. Because Equation 1.1 relies upon faulty assumptions, it should be replaced with a more appropriate, accurate, and protective approach in the renewal permit. Until that time, Vermont Yankee should be required to report its hourly heat rejection rate to the River. Without this data, ANR cannot determine whether Vermont Yankee is in compliance with its existing permit limits. Further, the heat rejection data could be helpful in analyzing the relationship between Vermont Yankee's thermal

input and ambient water temperatures in the River. Finally, the elevated temperatures in the thermal plume should be evaluated in relation to their harmful effects on fish species in the River.

The findings of this report provide further evidence that the temperature limits in Vermont Yankee's expired permit are not adequate to maintain a healthy thermal environment for the aquatic species in the Connecticut River. Entergy has not met its burden to show that its discharge has not and will not harm the balanced, indigenous population of fish, shellfish, and wildlife in and on the River. We maintain that the renewal NPDES permit should be issued without a variance at this time, limiting Vermont Yankee's discharge to 1°F above ambient consistent with Vermont Water Quality Standards.

Thank you for your consideration, and please do not hesitate to contact us with any questions.

Sincerely,



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