



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

September 14, 2001

Mr. Philip Stewart, Manager
Tennessee Department of Environment & Conservation
Division of Water Pollution Control
Environmental Assistance Center
540 McCallie Avenue, Suite 550
Chattanooga, Tennessee 37402-2013

WATTS BAR NUCLEAR PLANT (WBN) - NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES) PERMIT No. TN0020168 - PERMIT RENEWAL
ADDENDUM

Dear Mr. Stewart:

This letter is to request specific changes to thermal monitoring requirements for WBN's Supplemental Condenser Cooling Water system, Outfall 113. While it remains WBN's long term objective to remove all instream instrumentation associated with this outfall, it is the general consensus among TVA specialists that there is insufficient data and analysis of data to request an end of pipe limit for the SCCW discharge at this time. However, WBN believes sufficient information is available to justify the following changes to thermal monitoring at Outfall 113. In view of the extensive data collection and modeling performed to date for Outfall 113, and based on the results of biological studies showing no significant impact to aquatic life by the thermal discharge, WBN proposes the following changes in the hydrothermal monitoring requirements for Outfall 113:

1. Removal of all instream instrumentation in the mussel relocation zone (MRZ). Data collected to date indicates the bottom temperature has never exceeded 28.9 degrees C and is not likely to ever exceed the current limit of 33.5 degrees C.
2. Evaluation of the thermal limits based on 24-hour averaging. The Norris Engineering report WR2001-4-85-145 dated September 2001 indicates the occasional spikes in temperature rise and rate of change observed when using hourly averaging of the river temperature are intermittent and of very short duration. The WBN report Results of Biological Monitoring in the Vicinity of Watts Bar Nuclear Plant 2000 dated June 2001 indicates there has been no impact to aquatic life based on operation of the SCCW due to these intermittent spikes. Therefore, WBN proposes the upstream and the downstream sensors compute river temperature based on a running average of temperatures collected over the last 24 hours and that temperature rise be calculated by comparing the running averages of these two sensors. Similarly, WBN proposes the rate of change for this outfall be based on the hourly rate of change of the running average of the downstream sensor.

Thermal compliance can be quite complex. If the above proposal is unacceptable, there are a variety of variations on the above theme that may meet both our needs. WBN staff are available for a meeting in your office at your convenience to discuss details of a thermal compliance program that meets both our needs. Please contact Rob Crawford of my staff at 423-365-8005 to answer any questions or to make arrangements for a meeting.

Mr. Philip Stewart, Manager
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While preparing this correspondence it was discovered two parameters were inadvertently omitted from the DMR History report included with the April 4, 2001 permit application from WBN. I have attached 2 copies of a corrected page 9 for this report. You will find the report under the tab marked "DMR HISTORY" in the original application binder. I have copied Mr. Larry Bunting in the Nashville office this letter and the above attachment.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in the attached document; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Sincerely,



Edward R. Robinson
Environmental/Radwaste Control Superintendent

Enclosures

cc: U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

NPDES Effluent History for TN0020168

(from January, 1998 thru December, 2000)

TEMP. DIFF. BETWEEN SAMP. & UPSTRM DEG. C

Maximum Daily Values			Max 30-day Values			Average Daily Values Over Report Period		
Count	Max Conc./Rate	Max Mass	Count	Max Conc./Rate	Max Mass	Count	Avg Conc./Rate	Avg Mass
445	2.800 C(deg)	Not Applicable	15	1.858 C(deg)	Not Applicable	445	0.804 C(deg)	Not Applicable

TEMPERATURE, MAX DOWN STREAM

Maximum Daily Values			Max 30-day Values			Average Daily Values Over Report Period		
Count	Max Conc./Rate	Max Mass	Count	Max Conc./Rate	Max Mass	Count	Avg Conc./Rate	Avg Mass
443	28.600 C(deg)	Not Applicable	15	27.835 C(deg)	Not Applicable	443	17.649 C(deg)	Not Applicable

TEMPERATURE, MAX MRZ BOTTOM TEMP

Maximum Daily Values			Max 30-day Values			Average Daily Values Over Report Period		
Count	Max Conc./Rate	Max Mass	Count	Max Conc./Rate	Max Mass	Count	Avg Conc./Rate	Avg Mass
519	28.900 C(deg)	Not Applicable	18	28.065 C(deg)	Not Applicable	519	19.794 C(deg)	Not Applicable

TEMPERATURE, MAX RATE OF CHANGE

Maximum Daily Values			Max 30-day Values			Average Daily Values Over Report Period		
Count	Max Conc./Rate	Max Mass	Count	Max Conc./Rate	Max Mass	Count	Avg Conc./Rate	Avg Mass
443	1.600 C(deg)	Not Applicable	15	0.694 C(deg)	Not Applicable	443	0.456 C(deg)	Not Applicable

TEMPERATURE, WATER DEG. CENTIGRADE

Maximum Daily Values			Max 30-day Values			Average Daily Values Over Report Period		
Count	Max Conc./Rate	Max Mass	Count	Max Conc./Rate	Max Mass	Count	Avg Conc./Rate	Avg Mass
521	34.740 C(deg)	Not Applicable	18	33.061 C(deg)	Not Applicable	521	25.012 C(deg)	Not Applicable

NOTES:

lbs/Day = Pounds Per Day and is calculated using the average concentration for the month and the average flow rate for the month.

lbs/Mo = Pounds Per Month and is calculated by multiplying the lbs/Day times the number of days flow was observed during the month indicated.

Count = the number of daily values obtained for daily statistics or the number of months evaluated for monthly statistics.

Maximum Daily Values are the maximum for any given day over the entire three years of the report.

Max 30-day Values are the Maximum values for any calendar month in the report period. First you average all values for each parameter for each calendar month.

Average Daily Values Over Report Period is the average value for the parameter over the report period.