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AUG 24 1978

RECEIVED
Environmental Protection
Agency
Washington, D.C.

Mrs. Suzanne G. Keblusek, Project Manager
Environmental Projects Branch 2
Division of Site Safety &
Environmental Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Watts Bar Nuclear Plant
NPDES Permit No. TN0020168; Public Notice No. 78TN0006

Dear Mrs. Keblusek:

Enclosed for your information and files are copies of various letters received in response to the Public Notice for the referenced facility.

Your cooperation on this project is appreciated.

Sincerely yours,

Charles H. Kaplan
Coordinator
Thermal Analysis Unit

Enclosures

780820343

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EJ/11

To: Ms. Mona Ellison
Enforcement Division
USEPA
395 Courtland St., NE
Atlanta, Ga. 30308

From: Louise Gorenflo
Box 73
Pelham, TN 37366

RE: NPDES Application No. TN0020168
TVA for its proposed Watts Bar Nuclear Plant

The section 316 (a) variance to Tennessee Water Quality Standards is not in the best interest of the local ecology. To merely state that no harm will result to the biota is not enough. Conclusive evidence must be forthcoming based on local conditions including the particular species and communities involved. A literature search is not enough as each body of water has its unique characteristics.

The Tennessee River has been subject to increasing perturbation. Reservoirs, industry and municipal wastes have altered its flow and quality so that only remnants of the original community structure remain. The question arises how much more stress can the already simplified system withstand. The species identified by TVA in the environs of the Watts Bar Site need protection from the popular attitude that industrial alteration of natural conditions is justified in

the name of the economy and progress. Yet the profound interrelationships in nature are only now being sensed: to degrade natural conditions because certain species lack human significance bespeaks of utter disrespect for human dependence on flows of materials and energy through natural systems.

Thermal pollution by definition is the effects of heated water on the biota. Although no single thermal requirement exist for all species, limits of tolerance are known for groups of species. Most biologists are convinced that temperature fluctuations are very damaging to fishes although little research has been conducted along those lines. Seasonal fluctuations, however, are necessary for spawning for some species. Cases have been documented in which certain fish species were attracted to hot water areas which were not able to survive for the period of time stayed or died when they left the areas of heated water. If a zone of unfavorable temperature blocks the stream, migration can be completely prevented. Warmer

temperatures greatly change faunal composition. Disease increases with increased temperature. If the prey of fry cannot tolerate increased temperatures, food will be absent at the time the young fish begin to feed - a most critical time.

Increased algal growth and drastic changes in plankton composition are known to result from increased temperatures. Increased primary production may be detrimental to fish. At 35°C blue green algae are favored, a situation leading to nuisance algal blooms. Diatoms cannot compete successfully in waters greater than 30°C .

Another prevailing assumption among government and industry is that waters are croplands to which can be applied agricultural practices such as reduction of species diversity to increase production of desired species. The general emphasis on game species to the detriment of "non-game" species

is a short sighted attitude. The alternative view is to consider natural systems as a whole through the study of community energetics rather than species energetics. Simplified managed systems have hidden cost: continuing capital investment and a rigid unstable system. We should learn to manage river waters that support diversified aquatic life rather than accept polluted streams.

It is obvious that TVA and perhaps EPA take the position that it would be pleasant to maintain water quality so that "insignificant" species could survive in habitats slated for perturbation, but that the economics and time schedule for large projects prohibit this luxury. This way of thinking is dangerous as it leads to trends which cannot be reversed and leads to the ultimate destruction of species habitat and thus extinction. I say we make the time to assess the effects of thermal pollution

at the site of Watts Bar before it starts
operation rather than during operation. We must
take the time now before we are not
permitted the chance later. Human relations to
the ecology are integrated - we do not manage
the environment - we are rather of the
environment. Our continued exploitation of
natural conditions will as certainly remove our
habitat as Watts Bar nuclear plant will remove
the habitat of a greater number of species.
I urge a public hearing on this matter

Thank you,

/s/ Vivian Goren/6



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Ecological Services
Post Office Box 845
Cookeville, TN 38501

CFL-103
June 16, 1978

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FBI-REGION IV
ATLANTA, GA

Mr. George Harlow
U. S. Environmental Protection Agency
Water Enforcement Branch
345 Courtland Street, N. E.
Atlanta, GA 30308

Dear Mr. Harlow:

The Fish and Wildlife Service has received the public notice listed below concerning applications for N.P.D.E.S. permits. Due to manpower and funding limitations we are unable to perform necessary field investigations and, therefore, cannot at this time provide significant comments. We take no position concerning issuance of this permit.

These constitute the comments of the U. S. Department of the Interior in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. et seq.) and are consistent with the National Environmental Policy Act of 1969.

<u>Public Notice #</u>	<u>Date</u>	<u>Applicant</u>	<u>Due Date</u>
78TN0006	6-1-78	Tennessee Valley Authority	7-1-78

Sincerely yours,

Thomas S. Talley
Thomas S. Talley
Field Supervisor

cc: FWS Area Office/Asheville, NC

TST/RJ/sj

HTC



RAY BLANTON
GOVERNOR

STATE OF TENNESSEE
DEPARTMENT OF PUBLIC HEALTH
NASHVILLE 37219

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ENFORCEMENT
DIVISION

Eugene W. Fowinkle, M.D., M.P.H.
Commissioner

621 Cordell Hull Building

June 26, 1978

Mr. Paul J. Traina, Director
Enforcement Division
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30308

Re: State Certification of NPDES
Permit Number TN0020168
Watts Bar Nuclear Plant

Dear Mr. Traina:

The State of Tennessee hereby requests an extension of the certification deadline for NPDES Permit Number TN0020168 from July 15, 1978 to September 6, 1978. This additional time is being requested so that the Division of Water Quality Control will be able to review the comments received on the NRC draft Environmental Impact Statement (EIS) prior to issuing our certification. As we understand it, the comment period for the draft EIS published June 2, 1978 will last for forty-five (45) days, ending on July 17, 1978. We propose to complete our review of the submitted comments by July 31, 1978, and issue a Notice of Intended Action to the Tennessee Valley Authority at that time. The Tennessee Valley Authority should receive the Notice by approximately August 4, 1978. If no appeal is received by the State within thirty (30) days of receipt of the Notice, State certification will be issued and hopefully will be received by EPA by September 6, 1978.

Mr. Charles Kaplan of your office has discussed this situation with us, and has indicated that this request will not cause any problems with the permit issuance schedule. We look forward to your favorable reply.

Sincerely yours,

Natalie G. Ransone

Natalie G. Ransone
Environmental Engineer
Division of Water Quality Control

NGR/adb 1-4

cc: Mr. Charles Kaplan, Environmental Protection Agency
Mr. Jack McCormick, Division of Water Quality Control



June 22, 1978
3427 Topside Road
Knoxville, Tennessee 37920

Enforcement Division
U. S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Attention: Ms. Mona Allison

Reference: NPDES Permit
TN 0020168
USTVA Watts Bar
Nuclear Plant

Dear Ms. Allison:

Please consider this letter as my comments on the above referenced draft permit.

In reviewing the fact sheet and draft permit I feel there is need for some changes. They are as follows:

1. There is apparently no provision for continuous monitoring of radioactive effluents except when the radwaste treatment system is operating. This should be stipulated in the permit as residual leakage, runoff and background activity could be appreciable.
2. The USTVA should be responsible for upstream and downstreams monitoring on a routine basis.
3. There should be a total dissolved solids limitation on discharges 004, 006, 007, and 008. This need seems obvious in light of the downstream users of the Tennessee River (industrial and domestic raw water supply) and the quantity of consumptive water use by the plant cooling towers.
4. The word "routine" in paragraph N. Part III, page 21 of the draft permit should be deleted such that personnel of the Water Quality Control Division, Tennessee Department of Public Health can have ready access to all data collected at the facility.

5. Effluent monitoring on discharge 002 should be required as continuous 24 hour composites, recorded daily and reported monthly for all parameters listed and for total suspended solids. This sampling should be conducted for a period of two years or for the duration of plant start-up plus one year. This would establish the variability of concentrations and the need for any more or any less frequent sampling.

Your consideration of the above comments is appreciated. If you have any questions of me, please do not hesitate to call. My telephone number is:

588-6444 Work
573-7472 Home

With kind regards I remain,

Very truly yours,



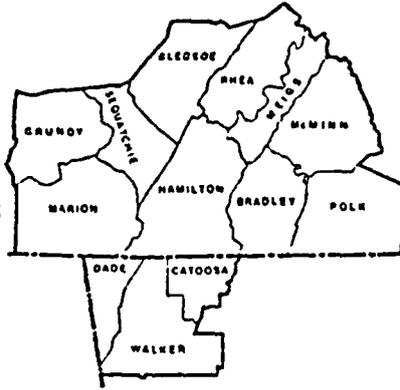
Robb A. Unger, P.E.

RAU/mm

CARCOG

CHATTANOOGA AREA REGIONAL COUNCIL OF GOVERNMENTS

JAMES M. CANTRELL
Chairman



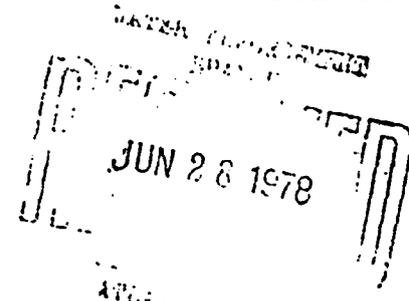
SETDD

SOUTHEAST TENNESSEE DEVELOPMENT DISTRICT

C. L. THRAILKILL
Executive Director

June 27, 1978

U. S. Environmental Protection Agency
Region IV, Water Enforcement Branch
345 Courtland Street
Atlanta, Georgia 30308



Public Notice No. 78TN0006 NOTICE OF PROPOSED ISSUANCE OF NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT, NOTICE OF PROPOSED SECTION 316(a) DETERMINATION, AND REQUEST FOR STATE CERTIFICATION

Dear Sir:

In accordance with the Office of Management and Budget Circular A-95 this office, as the areawide clearinghouse, has reviewed the subject proposal.

On the basis of the information now available to this office, our findings reveal no conflicts with existing or planned activities in the area.

Should there be any question, or if we may be of further assistance, please contact this office.

Sincerely,

Charles L. Thrailkill
Executive Director

CLT:HCB:cud

June 30, 1978

Dear Sirs,

I appreciate the opportunity to comment upon TVA's TN0020168 application for a National Pollution Discharge Elimination System permit for the Watts Bar Nuclear Power Plant in Spring City, Tennessee. I am extremely concerned about the discharge of pollutants into water supplies. Many nuclear pollutants are extremely dangerous to people, and every effort must be made to ensure the protection of our own environment from dangerous, cancer-causing substances.

I also wonder why the Regional Administrator would raise the temperature of the thermal component of the discharge well above the maximum accepted criterion. It seems to me that the Tennessee Water Quality Standards should not be changed without a thorough study with citizen input. There is a real need for a public hearing about this, because the people should know how these decisions are made, and what is going on. The public should certainly have an understanding of the decisions which affect their lives.

Sincerely,

James Lyle

James Lyle
7520 Deane Hill Dr.
Knoxville, TN 37919



United States Department of the Interior

FISH AND WILDLIFE SERVICE

ROOM 279, FEDERAL BUILDING
ASHEVILLE, NORTH CAROLINA 28801

July 10, 1978

Mr. John White, Regional Administrator
U.S. Environmental Protection Agency
345 Courtland Street
Atlanta, Georgia 30308

Dear Mr. White:

The U.S. Fish and Wildlife Service has reviewed the proposed National Pollutant Discharge Elimination System (NPDES) permit to the Tennessee Valley Authority for its proposed Watts Bar Nuclear Power Station, NPDES No. TN 0020168. Our comments are submitted in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661, et seq.).

We have reviewed the conditions and limitations of effluent discharges and the proposed monitoring programs on indigenous aquatic biota.

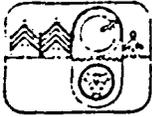
The U.S. Fish and Wildlife Service believes that this permit gives adequate considerations to assure the protection and propagation of balanced, indigenous populations of shellfish, fish, and wildlife in the receiving waters. The above views constitute the report of the Department of the Interior. We wish to be kept informed on the issuance and compliance on biological aspects of this permit, particularly when either endangered or threatened species are involved.

Sincerely yours,

William K. Hickling
Area Manager

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ENFORCEMENT
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DIVISION



Division of Planning and Development

2611 West End Ave. Nashville, TN 37203 [615] 741-1061

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ENFORCEMENT
DIVISION

August 1, 1978

Ms. Mona Ellison
Enforcement Division
Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Ga. 30308

RE: E.P.A./Department of Public Health
Notice # TN 0006 (1978) NPDES Permit
TN 0020618 - Cooling Waters - Watts
Bar Nuclear Plant

Dear Ms. Ellison:

The Tennessee Department of Conservation has reviewed the above referenced proposed project and submits the following comments:

The data base of the Tennessee Heritage Program indicates the reported occurrence of the following significant elements of natural diversity near the above referenced project:

Lampsilis orbiculata (Pink Mucket Pearly Mussel) Listed as Endangered on Federal Lists¹, State Lists², and Lists of the Tennessee Heritage Program. Reported 1.0 Mile below Watts Bar Dam in 1975.

Pleurobema cordatum (Pigtoe Pearly Mussel) Listed as a Species of Special Concern by the Tennessee Heritage Program. Reported 1.0 Mile below Watts Bar Dam in 1975.

These elements occur in a mussel sanctuary (control area) designated by the Tennessee Wildlife Resources Agency in a section of the Tennessee River which is already classified as "effluent - limited" due to the fact that it does not meet dissolved oxygen criteria for the protection of aquatic biota³. The sanctuary is located 1.2 miles downstream of the "Plant diffuser discharge" or Serial 002 Discharge Site.

It has been reported⁴ that the effluent from the Watts Bar Nuclear Plant will add significant amounts of dissolved salts to the river waters. These in addition to the thermal parameters of the effluent⁵ could produce stress on the aquatic biota downstream from the plant. Care should be taken to minimize these effects, particularly when the river's flow rates are low and power generating demands are high.

Ms. Mona Ellison
August 1, 1978
Page 2

- 1
USDI/FWS 1976 U.S. Federal Register 41 (115) June 14, 1976
- 2
Tennessee State List - Enabling Authority: "Tennessee Nongame and Endangered or Threatened Wildlife Species Act of 1974 (Public Chapter 769)"
- 3
Water Quality Management Plan for the Upper Tennessee River Basin, Tennessee Department of Public Health, Nashville, October 30, 1975
- 4
Draft Environmental Statement - Operation of Units 1 and 2 Watts Bar Nuclear Plant, Section 5.3.2, June 1978.
- 5
ibid., Section 5.3.1

YOURS FOR A BETTER TOMORROW

Walter L. Criley, Jr.

Walter L. Criley

WLC:pm

cc: Bill Yambert
Rex Boner