



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
WASHINGTON, D. C. 20240

JUL 15 1968

Mr. Harold Price
Director of Regulations
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Price:

This is in reply to Mr. Boyd's letter of November 28, 1967, requesting our comments on an application by Commonwealth Edison Company for a provisional operating license for Units 2 and 3 of the Dresden Nuclear Power Station, Grundy County, Illinois, Docket Nos. 50-237 and 50-249.

Units 2 and 3 are being erected adjacent to Unit 1 which has been in operation since 1960. The station is located on a 953-acre tract at the confluence of the Des Plaines and Kankakee Rivers. Unit 1 is a dual cycle boiling-water type while Units 2 and 3 are single cycle, forced circulation, boiling-water reactors. Units 2 and 3 are designed for a thermal output of 2,527 (809 electrical) megawatts each and are identical in virtually all respects. Units 1, 2, and 3 are independent of each other to the extent that an accident in one would not initiate an accident in the other. Simultaneous operation of the three units will not result in total radioactive effluent releases beyond allowable limits (CFR 10, Part 20) now prescribed for Unit 1.

The applicant will continue radiological monitoring, using stations established for the Unit 1 surveys and sample air, water, soil, plant and dairy products. The Argonne National Laboratory, the Illinois Department of Health and Controls for Radiation, Inc., under contract to Commonwealth Edison, have been involved in monitoring radioactivity at the Dresden site environs. A total of 3,000 to 4,000 radiochemical analyses have been made annually. We have been assured that the monitoring will continue when Units 2 and 3 are operating.

In a report submitted to the Commission by the Commonwealth Edison Company on August 11, 1966, modifications to be initiated on January 1, 1967, were proposed for the monitoring program. One of these modifications was the deletion of fish and plankton samples because they did not accumulate measurable amounts of radioactivity during operation of Unit No. 1. We believe that after the two additional units begin operation and larger amounts of radioactive effluents are released, it will be necessary to monitor fish again, as well as other aquatic animals, such as worms, crustaceans, and molluscs for radioactivity.

In view of the increasing importance of maintaining quality of the aquatic environment and associated resources, it is recommended that Commonwealth Edison be required to:

1. Cooperate with the Fish and Wildlife Service, the Federal Water Pollution Control Administration, the Illinois Department of Conservation, the Illinois Department of Health, and other interested State agencies in planning the post-operational radiological monitoring program.
2. After operations begin, include in the environmental radiological monitoring program, water and sediment samples and aquatic plants and animals, especially species that might concentrate and store radioactive isotopes. Water and sediment samples should be collected within 500 feet of the reactor effluent outfall and at several stations downstream from the power station and be analyzed for gamma radioactivity. Aquatic plants and animals should be collected as near as possible to the reactor effluent outfall and at several downstream stations and should be analyzed for both beta and gamma radioactivity.
3. Prepare and submit reports of the environmental monitoring program to the Fish and Wildlife Service for evaluation every six months during reactor operation until it is conclusively demonstrated that project operations are not affecting fish and wildlife adversely.
4. Make modifications in project structures and operations to reduce the discharge of radioactive wastes to acceptable levels if it is determined that harmful concentrations of radioactivity are occurring in fish and wildlife.

We understand that the Commission's regulatory authority over nuclear power plants covers only those hazards associated with radioactive materials. However, in our letter of September 8, 1965, we urged that the hazards to fish and wildlife from thermal effects be called to the attention of the applicant, and that the applicant be encouraged to discuss the matter with the Fish and Wildlife Service and concerned State agencies. We recommended that appropriate studies of the effects of heated water be made and plant operation be modified to minimize any harmful effect on aquatic life. We reiterate those recommendations at this time and make the following additional comments regarding thermal effects.

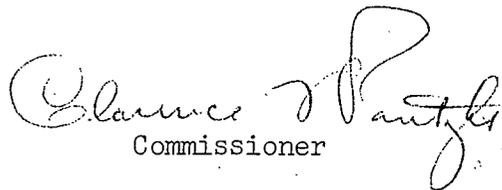
The stretch of the Des Plaines and Kankakee Rivers flowing past the Dresden site are described as biologically degraded. It is imperative, therefore, that the combined effects of waste discharges from Units 1, 2, and 3 do not contribute further to this degradation. The Illinois water quality

standards, which were recently approved by the Secretary of the Interior, indicate that thermal loading of the river at the Dresden Plant discharge point should not exceed 95° F. Commonwealth Edison could materially benefit the sport and commercial fishery in the upper reaches of the Illinois River, however, by maintaining effluent discharge temperatures below the permissible limit.

In view of the present impetus to reduce pollution in all of its manifested forms, we recommend that the Commission urge Commonwealth Edison Company to cooperate with the Fish and Wildlife Service and the Illinois Department of Conservation in developing and undertaking plans for the improvement of conditions for fish and wildlife in the upper reaches of the Illinois River.

The opportunity for presenting our views on this subject is appreciated.

Sincerely yours,


Commissioner