ORIGINAL

DOCKET NO. 81 - AN APPLICATION OF THE EXETER ENERGY LIMITED PARTNERSHIP FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE EXETER ENERGY STERLING PROJECT, WHICH WOULD GENERATE ELECTRICITY FROM THE COMBUSTION OF WASTE TIRES IN THE TOWN OF STERLING, CONNECTICUT. : Connecticut : Siting : Council

May 3, 1988

OPINION

The Exeter Energy Limited Partnership (Exeter) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction of a facility to generate electricity from the burning of waste tires in the Town of Sterling, Connecticut on July 31, 1987. The proposed facility would generate 26.5 MW (net) of electricity which would be sold to the Connecticut Light and Power Company (CL&P).

In the 10 months which have transpired since the submittal of this application by the applicant, the Council has received written and oral testimony regarding this proposed facility's potential effects on the air, water, roads, traffic, natural environment, ecological balance, public health and safety, scenic historic and recreational values, forests and parks, fish and wildlife both in Connecticut and Rhode Island.

The Council held four separate hearings on this matter during which these and many other issues were raised.

The Council and the various parties and intervenors in this proceeding raised many questions about this facility and in response received evidence to build a substantial and substantiated record. The legitimate concerns of Rhode Island residents were heard, investigated, and evaluated by the Council. The proposed facility's effects from air emissions on the air and water quality of the Connecticut - Rhode Island region received particular scrutiny. Evidence and testimony were sought and received from the United States Environmental Protection Agency (EPA), the Rhode Island Department of Environmental Management (DEM), and the Connecticut Department of Environmental Protection (DEP). The consensus reached by these agencies, whose primary mission is the protection of the environment, was that the emissions controls proposed for this facility are "state-of-the-art." Indeed, the emissions controls are more stringent than required by either the DEP or the EPA, and their inclusion in this project should set a new standard for future electric power generating facilities in southern New England. To assure strict compliance with state air emissions regulations, the exhaust gases from the stack of the proposed facility would be continuously monitored.

Any approach of the upper limits of sulphur dioxide (SO_2) from this facility would cause the plant to be run at a lower capacity or smaller number of hours to avoid exceeding this emission limitation.

The Council carefully considered the potential effects of air emissions from this plant on the health and safety of Connecticut and Rhode Island residents. In evaluating these potential effects, the Council weighed evidence from the EPA, DEP, DEM, and specialists in the field of environmental science. Based on current scientific evidence, the emissions from the proposed facility are relatively small in comparison to pollutants already in the atmosphere.

The proposed facility would use a substantial amount of water on a daily basis. The Council evaluated this water usage and its effect on the Sterling municipal water supply, the Moosup River aquifer, the Plainfield sewage treatment plant, and aquatic life in the Moosup River. The evidence indicates that the proposed facility would not affect any of these resources or the treatment plant.

Additionally, the Moosup River aquifer, the Moosup River itself, and the Town of Sterling municipal water system are capable of meeting the water requirements of this proposed facility even with a fully developed and operating Sterling Industrial Park. Only sanitary wastewater and treated wastewater would be discharged into the Plainfield sewage plant.

The proposed facility would store approximately 1.3 million tires on site. This amount of tires stored at one place raises two major concerns: fire and the breeding of mosquitoes. To prevent fire and its spreading through the facility, the size of the storage piles would be restricted, fire separation lanes would be maintained between the storage piles, and the storage area would be well away from the incineration area. To monitor the outbreak of fires, Exeter would employ a fire detection system. To combat fires, hydrants, pumps, and sprinkler systems would be employed. A special fire suppressant, Tire-X, would be added to the water used in fire fighting. A 400,000 gallon water storage tank would ensure adequate on-site water at all times.

The Council is concerned about the possible transmission of disease by mosquitoes, as well as their nuisance. Therefore, to prevent mosquito breeding in the tire storage piles, Exeter would limit the length of time tires are stored, and cover whole tires during storage. Final mosquito control plans would be developed in the Solid Waste Permit.

The Council examined the adequacy of the road system in the area of the proposed facility. The number of vehicles carrying tires, an expected 25 to 30 trucks per day, would be minimal when compared to the existing traffic. In the opinion of the Connecticut Department of Transportation, roads in the area are capable of handling these trucks. The Rhode Island Department of Transportation reached a similar conclusion about Rhode Island's roads.

To reduce potential noise impacts from the proposed facility, tires would only be unloaded during daytime hours. Low noise emission equipment would be installed and safety relief valves and emergency generators would be fitted with silencers or mufflers.

The proposed site is within the Sterling Industrial Park, which was established by the Town of Sterling as a site for industrial development. This proposed site has an existing water and sewer system, is near existing transmission line right-of-ways, and is well removed from any nearby residences.

Exeter included an alternative site in its application. This alternative site is off of Route 14 in Sterling, and does not have existing sewer lines or existing water supply. A longer roadway would be required to access this site. Additionally, there are 14 residences within a 2,000-foot radius of this site, compared to only one at the proposed site. The development of this site would be more costly, both monetarily and environmentally. The construction of the proposed facility at the alternative site would result in a plant which would be quite visible to the residents and motorists in the vicinity. In contrast, a treed buffer zone would surround the proposed site. Only the top of the proposed boiler building and exhaust stack would be visible if the proposed Industrial Park location were used.

To control unauthorized access, the proposed facility would be surrounded by an eight-foot chain link fence, access gates would be controlled, and the facility would be lighted 24 hours a day.

In reaching a decision on a proposed facility, the Council must weigh the potential environmental effects of that facility against the need for its construction and operation. An electricity shortfall is expected in Connecticut by 1995. The proposed facility is a Block One project as defined by the Department of Public Utility Control (DPUC) and electricity from such projects will be necessary to prevent such an energy deficit in the next decade. In its March 31, 1987, decision approving the sale of the proposed facility's electricity to CL&P, the DPUC found the project would benefit Connecticut by providing payments of less than anticipated costs over the duration of the contract, promote resource recovery, reduce landfill problems, diversify Connecticut's fuel mix, further reduce CL&P's dependence on fossil fuels, and develop an innovative technology. The Division of Consumer Counsel also commented favorably on the proposed project, stating the project would have a pricing stream equal to or better than any such project previously approved by the DPUC.

The Council concurs in the need for developing indigenously fueled, small, privately owned, and diversified electrical generating facilities which would increase the stability of the electrical supply system of the state. Reducing the state's reliance on oil-fueled electrical generation makes Connecticut less vulnerable to dependence on foreign energy supplies, less susceptible to fuel price increases, and less threatened by fuel shortages.

The proposed facility would also provide a solution to the disposal of the 3.5 million to 5 million tires discarded annually in Connecticut, a figure likely to continue to increase as more automobiles travel the state's roads each year. Additionally, all the by-products from the combustion of these tires are potentially marketable, and would therefore constitute a form of recycling, a concept which will become more important in future decades.

The Council finds a public need for the electricity that would be produced by the facility and that the effects associated with the construction and operation of the facility, including effects on the natural environment; ecological balance; public health and safety; scenic; historic and recreational values; forests and parks; air and water purity; and fish and wildlife are not significant either alone or cumulatively with other effects, are not in conflict with the policies of the state concerning such effects, and are not sufficient reason to deny the application, and therefore, the Council will issue a Certificate for the Exeter waste tires to energy facility.

The Council will attach conditions upon such approval in its Decision and Order. These conditions will require the Certificate Holder to strictly comply with all applicable state and federal emissions permits. It will also contain the elements of a development and management (D&M) plan which will include specifications which must be met prior to commencement of construction.

The D&M plan will require the Certificate Holder to produce a landscaping plan, an erosion and sediment control plan, odor and noise control plans, and plans for mosquito control, hazardous waste screening, and fire prevention and detection.