



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VI  
1201 ELM STREET  
DALLAS, TEXAS 75270

June 30, 1981

Mr. Frank J. Miraglia  
Acting Chief, Licensing Branch No. 3  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555



Dear Mr. Miraglia:

We have completed our review of the Draft Environmental Impact Statement (EIS) related to the operation of the Waterford Steam Electric Station, Unit No. 3, (Docket No. 50-382) St. Charles Parish, Louisiana. The proposed action is to issue an operating license for the start up and operation of Unit 3. The Unit will be built by the Louisiana Power and Light Company about 25 miles west of New Orleans, Louisiana, and is scheduled for fuel-loading in 1982.

The following comments are provided for your consideration when preparing the Final EIS:

Generic Comments

In our past reviews of Draft EIS's related to light-water nuclear power facilities, we have included generic comments which are applicable to all such facilities. As a result of the Three Mile Island accident and other recent activities, we have decided that we must revise our generic comments to consider these events and activities. We will provide our revised generic comments to the Nuclear Regulatory Commission (NRC) as soon as they are completed. Generic areas undergoing review are:

- Population dose commitments
- Reactor accidents
- Fuel cycle and long-term dose assessments
- High-level radioactive waste management
- Transportation impacts
- Decommissioning

Radioactive Waste Treatment Systems

The Draft EIS does not contain detailed descriptions of the radioactive waste treatment systems or the NRC staff's detailed evaluations. Such matters are referenced to the Safety Evaluation Report (SER), which has not yet been issued. On request, however, we were supplied an advance copy of draft sections on the ventilation and radioactive waste treatment systems. We appreciate being supplied this information.

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It appears that the radioactive waste treatment systems are capable of controlling emissions to levels such that, when direct radiation is also considered, operations will be within EPA's Environmental Radiation Standards, 40 CFR 190. However, we note that the pre-draft GER identifies certain unspecified "confirmatory" information which has not yet been provided by the applicant. Pending receipt of this information and NRC staff review, the Liquid Waste Processing System, the Gaseous Waste Processing System, and the Solid Radioactive Waste Treatment System are all considered confirmatory issues. We therefore consider our conclusions, regarding the capabilities of these systems, to be contingent on the successful resolution of the confirmatory items by the NRC staff.

We believe the Final EIS should include an evaluation and full discussion of any confirmatory items not resolved by the time it is issued.

### Reactor Accidents

When discussing accident risk and impacts of design basis accidents, the Draft EIS addresses probabilities of occurrence qualitatively. Yet, when discussing more severe core melt accidents, the probabilities of occurrence are quantified (Table 5.19). For consistency in the presentation of all environmental risks, we believe the probabilities of occurrence of infrequent accidents and limiting fault design basis accidents should also be provided.

### Safety Evaluation Report

The practice of issuing the Draft EIS in advance of the SER has prevented our performing a complete review of the environmental impacts of the Waterford-3 station. As discussed in our comments on radioactive waste treatment systems, we were provided advance copies of draft SER sections on those systems, so the problem was alleviated, although we do not consider this pre-draft information to be formal documentation. Also, the Draft EIS refers to the SER in several other important areas which are still under NRC review. These include:

1. Site features. The authority of the applicant to control all activities within the exclusion area is still under NRC staff review. Also, nearby off-site hazards, including those associated with hydrocarbon and toxic substances pipelines, train, truck, and aircraft traffic, and oil and gas fields are still under review. Exclusion area activities will be evaluated in the SER, but the evaluation of off-site hazards will not be completed until later and included in a supplement to the SER.
2. Emergency preparedness. Facility emergency plans and State and local plans are reported to be in an advanced, but not yet fully completed stage. NRC staff findings of adequacy and implementability, for both the on-site and off-site plans, will be reported in the SER.

In view of the above, the conclusion stated in Section 5.12 regarding no conflict between environmental concerns and the proposed action, would seem to be contingent on favorable results on some important ongoing staff reviews and hence premature. The Final EIS should be withheld until the above-mentioned reviews are completed, or should specifically evaluate any of the areas which are still undergoing review.

We urge the NRC to ensure that, in the future, the Safety Evaluation Report is available before issuing the Draft EIS. Material incorporated into an EIS by reference should be reasonably available for inspection within the time allowed for comment (40 CFR 1502.21). We do not believe the citations of missing but forthcoming information in the SER constitutes a "reference" in the common meaning of that word.

#### Decommissioning

The Draft EIS states that planning for decommissioning can have an impact on health and safety as well as cost, and that financial assurance that funds will be available, when required, is a factor to be considered. We concur in this assessment, but were unable to find in the Draft EIS arrangements for financing decommissioning costs. Although decommissioning costs are noted to be a small fraction of present worth commissioning costs, they will still represent a large cost burden when needed, if not set aside out of revenues during the plant's operating lifetime. The Final EIS should explain what arrangements have been made, or are planned, to assure that funds will be available when required.

In this connection, it is not clear at what point the licensee's financial responsibility is to be terminated. Termination of the nuclear license is required at the end of facility life, and this requires decontamination of the facility such that unrestricted use can be allowed. One option to achieve such decontamination is SAFSTOR, which allows deferral of decontamination for up to 100 years. It is not clear, in such a case, whether license termination would occur prior to or at the end of such an extended storage period. If termination occurs at the beginning of the storage period, financial arrangements evidently will be necessary to pay for the deferred decontamination. The Final EIS should clarify this point.

#### Economic Risks

As the Three Mile Island accident demonstrated, the cost of reactor building decontamination and replacement power following an accident can be sizable. This underscores the need to develop standard methodologies for estimating the contribution of these costs to economic risks. Economic risks are addressed in Section 5.9.2.1.4(6) of the Draft EIS (under Station Accidents). Based on low probability, annualized risk is shown to be modest. Because of the potentially severe economic costs; however, we believe these risks should be mentioned explicitly in the benefit-cost summary, Section 6.6.

Additional Comments

1. The statement on page 5-54 that a dose greater than about 25 rems over a short period of time is necessary before any physiological effects are clinically detectable, should be reviewed. Information contained in the World Health Organization technical report No. 123 would seem to indicate that physiological changes can occur at exposures as low as 10 rems.
2. Table 6.1 lists water samples to be taken from the intake structure, but none from the discharge canal which would provide a measure of the radioactivity discharged from the facility. This should be explained. Also, in this same table, it is not clear whether the thermoluminescent dosimeters (TLD) are to be collected on a quarterly schedule which could change to a semi-annual schedule, or whether some TLD's will be collected quarterly and some semi-annually. These points should be clarified in the Final EIS.
3. In Table 5.14 population dose is labeled as "mrem" and should be "man-rem." Also, in the same table, truck vs. rail traffic density is unclear.
4. The footnote under Table 5.24 appears to be misplaced.

In view of the information provided and our comments on the Draft EIS, we classify the proposed project action as ER-2 (Environmental Reservations, Insufficient Information). We ask that the Final EIS and supporting documents be strengthened in the areas our preceding detailed comments have identified.

Our rating is based on our evaluation of the EIS, advance copies of pre-draft SER sections and other important areas which are still undergoing NRC review as discussed earlier. We reserve the right to change our rating if published information is substantially changed from what we have reviewed.

Our classification will be published in the Federal Register according to our responsibility to inform the public of our views on proposed Federal actions, under Section 309 of the Clean Air Act.

Definitions of the categories are provided on the enclosure. Our procedure is to categorize the EIS on both the environmental consequences of the proposed action and on the adequacy of the EIS at the draft stage, whenever possible.

We appreciated the opportunity to review the Draft EIS. Please send our office five (5) copies of the Final EIS at the same time it is sent to the Office of Federal Activities, U.S. Environmental Protection Agency, Washington, D.C.

Sincerely,

*Frances E. Phillips*

Frances E. Phillips  
Acting Regional Administrator

Enclosure

LO - Lack of Objections

EPA has no objections to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER - Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to re-assess these aspects.

EU - Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

ADEQUACY OF THE IMPACT STATEMENT

Category 1 - Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2 - Insufficient Information

EPA believes the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3 - Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement. If a draft statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make a determination.