

September 21, 1978

C O R R E C T I O N N O T I C E

TO ALL COPYHOLDERS OF

SECY-78-485 - PRELIMINARY STATEMENT ON GENERAL POLICY FOR RULEMAKING TO IMPROVE
NUCLEAR POWER PLANT LICENSING

(CONSENT CALENDAR ITEM)

THE EXECUTIVE DIRECTOR FOR OPERATIONS HAS REQUESTED THAT THE ATTACHED PAGES BE
SUBSTITUTED IN THE ENCLOSURES TO THE SUBJECT PAPER. THE PAGES HAVE BEEN CHANGED
TO BETTER PRESERVE THE STAFF'S FLEXIBILITY IN RESPONDING TO A PENDING RULEMAKING
PETITION PRM-51-4. PLEASE REPLACE PAGES 8 AND 9 IN ENCLOSURE A AND PAGES 1 THROUGH
5 OF ISSUE NO. 7 IN ENCLOSURE D WITH THE ATTACHED PAGES. NRR AND SD CONCUR IN
CHANGES.

SECRETARIAT

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• NEPA decision criteria for operating license (OL) reviews - Current NRC regulations regarding OL licensing review procedures (10 CFR 51.23-e) declare that "a draft environmental impact statement prepared in connection with the issuance of an operating license will cover only matters which differ from or which reflect new information in addition to those matters discussed in the final environmental impact statement prepared in connection with the issuance of the construction permit." This instruction makes no differentiation in the relevance of individual cost-benefit considerations to licensing decisions at the OL versus the Construction Permit (CP) stage. For example, the staff believes the need for constructing new baseload generating capacity, a factor considered in a CP decision, normally is no longer a significant factor in the OL decision because the plant has already been constructed. The staff believes that in order to be forward-looking, the OL decision should ignore investment costs and the controlling cost-benefit criterion at this stage is whether the operation of a nuclear plant once constructed is a less expensive option for society in terms of incremental system and environmental costs than the use of any equivalent baseload capacity available within the system or the purchase of energy from other utilities in the power pool. Likewise, construction of new alternative energy sources and construction of the plant proposed in the application on an alternative site do not appear to be significant to an OL decision. Also, external and irretrievable impacts on the environment or community-level and socioeconomic effects that have already occurred after having

been found acceptable at the time of the CP decision do not appear to be relevant to an OL decision.

Rulemaking would improve licensing effectiveness at the OL stage through: (i) establishing for some issues a clear differentiation between impact issues admissible for review at the CP and OL stages of licensing decision; and (ii) developing for others acceptance criteria as to whether new information on impacts germane to an OL decision are sufficiently significant to societal interests to require review at the OL stage.

Currently, there is under review a petition for rulemaking in this area (PRM-51-4). While the staff believes that rulemaking in this general area would be productive, this Interim Policy Statement should not be considered as impacting the Commission's decision relative to the legal and technical merits of the petition.

Occupational radiation exposure control - Analysis of occupational radiation exposure data has identified activated corrosion products (crud) as the principal source of worker exposures at nuclear power plants. Man-rem exposure, plant down-time, and operating and maintenance costs may be substantially increased without appropriate exposure control of these depositional processes. The industry has been exploring methods of reducing occupational radiation exposures due to these sources. At such time in the future as information becomes sufficient to justify specific regulatory requirements in this area, rulemaking could achieve a specific annual radiation

NEPA DECISION CRITERIA FOR OL REVIEWS

I. Discussion of the Issue

NRC currently reviews the environmental impact of operation of a nuclear steam electric generating station in conjunction with the review of an application for a CP. A second review is performed at the time of the OL application. The current regulations do not clearly distinguish between the information which will be reviewed at the OL stage and the information which will be reviewed at the CP stage. The regulations do address additional information requirements at the OL stage (10 CFR 51.21 says the applicant's OL stage ER shall address the same material as the CP stage ER "but only to the extent that they differ from those discussed or reflected new information in addition to that discussed in the final environmental impact statement prepared by the Commission in connection with the construction permit.") The regulations further provide (10 CFR 51.23 (e)) that "a draft environmental impact statement prepared in connection with the issuance of an operating license will cover only matters which differ from or which reflect new information in addition to those matters discussed in the final environmental impact statement prepared in connection with the issuance of the construction permit."

While this guidance in some cases substantially eases the OL stage review process it has one major deficiency; i.e., some issues are

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very relevant at the CP stage but at the OL stage are inappropriate. Others likely could not tilt the cost-benefit balance in a reasonable analysis regardless of new information. For example, issues in one category or the other might be:

- (a) need for power/need for facility
- (b) alternative fuels
- (c) alternative sites
- (d) impacts of construction
- (e) physical layout and design of facility, including impact mitigating devices.

A second opportunity for review and litigation of any issues that have no relevance or could not reasonably impact the previous decision is not cost effective nor in the public interest.

At the time of an OL review there has been a substantial commitment of resources in constructing the approved design at the approved site. Therefore, the balance in favor of many alternatives that were available at the CP stage will have tilted against those alternatives by the time an OL decision is required. The issues at the OL review stage should logically focus on whether new information warrants specifically identifiable changes in mitigative structures or operating characteristics. It is, therefore, proposed that the scope of OL review be better defined by rulemaking.

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II. Likely Scope of Rulemaking

Rulemaking would serve to clarify the scope of review at the OL stage. Rulemaking should have as a second objective the exposition of criteria for determining where re-review of an issue is appropriate and permissible at the OL stage.

The rulemaking process should methodically consider each and every issue or type of issue covered in the NEPA review. This should include, as a minimum, the following:

1. need for power/need for facility
2. alternative energy sources
3. alternative sites
4. alternative impact mitigating structures:
 - a. intake structure
 - b. condenser cooling system
 - c. discharge structure

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5. alternative operating procedures
6. housekeeping practices (e.g., construction cleanup
transmission line right of way maintenance).
7. monitoring and surveillance programs

III. NRC and Other Resources Expended in Case Reviews and Hearings

The cost of the OL stage environmental review is great in proportion to benefits. An accurate up-to-date cost estimate is not available, but it is estimated at about half to two-thirds of a CP review. The estimate of the cost of the lab participation in CP reviews was placed at \$319,000 as of August 1977. This cost included hearings. The OL review often does not include an environmental hearing.

To the lab cost must be added the NRC staff cost. A November 1976 estimate of time expended by two branches (Environmental Specialists and Cost-Benefit Analysis) was about six man-months. The Hydrology/Meteorology, Radiation Assessment, and Accident Analysis Branches also provide substantial input to the OL review, as does the Environmental Projects Branch. The total NRC staff cost is estimated as roughly equal to the cost of lab participation, or about \$200,000 for the OL review.

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The applicant's cost for the environmental review at the OL stage is estimated to be in the range of 0.5 to 1.5 million dollars.

The estimated savings in NRC staff effort per case through rule-making is about 100 to 200 man-days with a total budgetary savings to NRC of about \$100,000 to \$210,000 per case. The estimated savings to the applicant is about \$500,000 per case.

IV. Information Required for Rulemaking

Both a legal review and a technical review will be necessary. The legal review should provide recommended procedures to assure compliance with NEPA. The technical review would consider case histories where both CP and OL statements have been prepared. The technical review would identify those areas where OL stage review is essential and cannot be avoided by more thorough treatment at the CP stage. The technical review would also provide the basis for an environmental impact appraisal or statement of the proposed rulemaking, if required.

The NRC staff effort for this rulemaking is estimated to be roughly 400 man-days at a total cost of \$320,000 including rulemaking workshops. The industry cost of rulemaking is estimated at roughly \$500,000.

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V. Major Policy Considerations

As a matter of policy, NRC has the primary responsibility to assure that the nuclear power industry adhere to environmentally sound practices. Modifications to our OL review process should be made only if they do not weaken our assurances that our NEPA responsibility will be reasonably discharged. However, any changes in this area are likely to be controversial as to whether we will still be providing reasonable assurances. There will be serious potential challenges regarding the legal requirements on NEPA.

Currently there is under review a petition for rulemaking in this area (PRM-51-4). While the staff believes that rulemaking in this general area would be productive, this Interim Policy Statement should not be considered as impacting the Commission's decision relative to the legal and technical merits of the petition.

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