

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
722 JACKSON PLACE N.W.
WASHINGTON, D. C. 20006



DOCKET NUMBER
PROD. & UTIL. FAC... 50-395

February 4, 1981

Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

DOCKET NUMBER PR 50, 51.
PROPOSED RULE 45 FR 40101

Dear Secretary Chilk:

Enclosed for filing in both Proposed Rule Docket PR 50, 51 (45 FR 40101) and Licensing Docket No. 50-395 are the Council's comments on the Draft Supplement to the Draft Environmental Statement for the Virgil C. Summer Nuclear Station, Unit No. 1 (NUREG-0534).

Sincerely,

C. Foster Knight
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Acting General Counsel



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COMMENTS OF THE
COUNCIL ON ENVIRONMENTAL QUALITY
ON NUREG-0534

The Council on Environmental Quality has reviewed the Draft Supplement to the Draft Environmental Statement related to the operation of the Virgil C. Summer Nuclear Station Unit No. 1 (NUREG-0534) and has the following comments pertaining to the adequacy of that document under the National Environmental Policy Act (NEPA) and the Council's regulations for the implementation of NEPA.

Background

The Council provided earlier guidance to the Nuclear Regulatory Commission on the analysis of serious nuclear accidents in Environmental Impact Statements (EISs) in a letter dated March 20, 1980 (copy attached). In that letter the Council indicated that its review of NRC impact statements on nuclear power plants had revealed them to be "largely perfunctory, remarkably standardized, and uninformative to the public." Additionally, the Council found that the potential impacts of serious nuclear accidents on human health and the environment were presented in a cursory and inadequate manner with little attention to facilitating public understanding. The Council urged the Commission to move quickly to revise its policy on accident analysis in EISs and to implement 40 C.F.R. Sec. 1502.22(b) of the Council's regulations. Specifically, the Council urged the Commission to (a) discuss the full range of potential nuclear reactor accidents, including "worst case" accidents previously categorized as "Class 9" accidents, in EISs and supplemental EISs; (b) include in the analysis the likely range of environmental and other consequences from severe and other accidents; (c) include within these EISs and supplements the best estimates of the likelihood of such events; and (d) broaden the range of variables used in determining accident impacts and expand the discussion in EISs of the impacts of nuclear accidents on human health, the natural environment, and local economies.

On August 14, 1980, in response to the NRC's Interim Policy Statement of June 13, 1980, the Council transmitted a letter to the Commission stating that the general approach of the Commission appeared to conform to the Council's basic outline for the treatment of serious nuclear accidents (copy attached). The Council also indicated it would provide the NRC with comments on the first NEPA analysis issued by the Commission in this connection.

Specific Comments

The Council has not critically reviewed the data or calculations presented in NUREG-0534. Rather, the following comments pertain to the approach and format of the accident analysis presented.

While the Draft Supplemental EIS on the Summer Nuclear Station is a useful first attempt to comply with NEPA and the Council's regulations, the Council finds that it is inadequate in several important respects:

1. The Supplement does not describe the potential impacts of serious accidents on human health and the environment in a clear and understandable manner for the public. Indeed, by presenting its estimates in terms of overall risk- or probability-distributions (cf. Figures 6.1.4-2 through 6.1.4-6), the Commission has combined the discussions of both the potential environmental and health impacts of serious accidents and their estimated probabilities of occurring. This combination conflicts with the Council's regulations, 40 C.F.R. Sec. 1502.22(b). Moreover, the presentation is based largely on the methods and procedures developed during the preparation of WASH-1400, the Reactor Safety Study. The uncertainty and potential lack of conservatism of this methodology have been subjected to considerable criticism since the publication of WASH-1400, and, indeed, are discussed within the supplement. Moreover, the Commission has acknowledged the overall uncertainties involved in projecting the likelihood of such accidents. 45 FR 40101, 40103, col. 2. (June 13, 1980). While the Council recognizes that the chosen methodology may be one of the few available tools for analyzing accidents, it believes that the major scientific uncertainties and gaps in information involved with its use should be reflected in the discussion. This should be accomplished by first including a discussion of the specific accidents themselves and the full range of their health and environmental impacts, in terms understandable to the public, irrespective of their estimated probability; and secondly, by introducing appropriate error bands within the figures of overall risk, mentioned above (i.e., Figures 6.1.4-2 through 6.1.4-6).

In this way the EIS will provide the public with a more accurate assessment of the risks posed by a given facility: individual, serious accidents will be reviewed and described along with their associated health, environmental, and societal impacts; but at the same time the calculated probabilities of the events will also be presented including the estimated uncertainties stemming from the serious shortcomings inherent in the methodology derived from WASH-1400.

2. During the briefing of the Council staff by Commission representatives, it was stated that with one exception, NRC staff will not prepare supplements to final EISs on construction permits ("CPs") in cases where the CP has not yet been issued. Staff indicated that in those cases the necessary accident analysis would not be put into EISs until the operating license review is reached. As indicated in the Council's letter of August 14, 1980, NEPA requires that supplemental EISs containing analysis of major accidents must be prepared as early as possible rather than waiting until the operating license review. Early consideration of such information might indicate, among other

things, the need to modify plant design, select an alternative site, implement certain emergency preparedness measures, or reconsider a construction permit altogether. A deliberate deferral of the analysis of major accidents until the operating license stage, after reactor construction is complete, drastically undermines the utility of the review to the public, the NRC and the utilities.

We again urge the Commission to accelerate its timetable for the preparation of these analyses.

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722 JACKSON PLACE N.W.
WASHINGTON, D. C. 20006

March 20, 1980

The Honorable John Ahearne
Chairman
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Ahearne:

Section 204(3) of the National Environmental Policy Act (NEPA) directs the Council on Environmental Quality "to review and appraise the various programs and activities of the Federal Government . . . for the purpose of determining the extent to which such programs and activities are contributing to the achievement of the policy [of NEPA]" Last year, as part of the Council's overall effort to meet this responsibility, the Council initiated a study of the Nuclear Regulatory Commission's regulations and policy on the environmental analysis of possible nuclear accidents under NEPA. This letter contains the conclusions of our study. We were assisted in this review by the Environmental Law Institute, which has prepared for us a report entitled "NRC's Environmental Analysis of Nuclear Accidents: Is It Adequate?", which I am providing to the Commission with this letter. The Council believes the report constitutes an accurate and important assessment of the NRC's regulations and policy on the analysis of nuclear accidents in environmental impact statements.

The results of our review of impact statements prepared by the NRC for nuclear power reactors are very disturbing. The discussion in these statements of potential accidents and their environmental impacts was found to be largely perfunctory, remarkably standardized, and uninformative to the public. Despite the broad diversity of size, design, and location of the nuclear reactors licensed by the Commission over the years, virtually every EIS contains essentially identical, "boilerplate" language written in an unvarying format. The typical EIS does not consider or analyze the possibility of a major accident even though it is these "Class 9" accidents which have the potential for greatest environmental harm and which have led to the greatest public concern. Moreover, for those accidents which are typically discussed in an EIS, the potential impacts on human health and the environment are presented in a cursory and inadequate manner with little attention to public understanding.

Each EIS relies on the NRC accident analysis policy, which has remained essentially unchanged and in interim form since 1971, asserting that "correct manufacture, design, operation and quality assurance" will provide "a high degree of protection" against the occurrence of postulated accidents. A limited range of accidents with varying consequences are discussed. Estimates of materials released from such accidents, or "release fractions," are provided. However, based on the conclusion that it is highly improbable that serious accidents will occur, the policy prohibits the discussion of certain severe accidents, the Class 9 events.

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August 14, 1980

The Honorable John Ahearne
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Ahearne:

The Council was gratified by the positive response informally expressed by the Commission for the views set forth in our letter and attachment to you, dated March 20, 1980, concerning accident analyses in the Commission's environmental impact statements ("EISs") for nuclear reactors. We believe that the subsequent formal announcement of Interim Policy on the issue by the Commission is the most significant and encouraging step you have taken to rectify the serious problems in accident analysis inherited from the Atomic Energy Commission. I am writing to you at this time to convey the Council's specific views on the Interim Policy and the steps which must be taken to fulfill the Commission's obligations under the National Environmental Policy Act ("NEPA").

The accident considerations to be included in future NEPA reviews described by the Commission in the June 13th policy statement (45 Fed.Reg. 40101, at 40103) appear to conform to the basic outline for the required accident analysis prescribed in the Council's letter of March 20, 1980. However, such an analysis is difficult to describe accurately in purely abstract terms. For that reason we look forward to the issuance of the first such NEPA analysis for a reactor in the licensing process. The Council will carefully examine the draft of that analysis and public comments thereon with a view toward providing the Commission with comments that would be useful in the preparation of a final analysis for NEPA review purposes.

As the Interim Policy indicates, consideration of the environmental consequences of severe reactor accidents might warrant the need "for additional features or other actions which would prevent or mitigate the consequences of serious accidents." 45 Fed.Reg. at 40103. Consideration of such information might indicate, among other things, the need to modify plant design, select an alternative site, implement emergency preparedness measures, or reconsider a construction permit altogether. In this regard, the Council strongly disapproves of the Commission majority's statement that such new NEPA reviews "will lead to conclusions regarding the environmental risks of accidents similar to those that would be reached by a continuation of current practices" 45 Fed.Reg. at 40103. Two members of the Commission disagreed with the majority on this point and concluded that that position is "absolutely inconsistent with an even-handed reappraisal of the former erroneous position on Class 9 accidents." 45 Fed.Reg. at 40103. The Council agrees. The two sentences

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