



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DEC 28 1984

50-354

MEMORANDUM FOR: Harold R. Denton, Director
Office of Nuclear Reactor Regulation

FROM: Richard C. DeYoung, Director
Office of Inspection and Enforcement

SUBJECT: IDVPs FOR CALENDAR YEAR 1986 AND 1987 PLANTS

My memos to you dated December 15, 1983 and July 17, 1984, discussed actions with respect to IDVPs for calendar year 1984 and 1985 plants, respectively. In addition, my memo to you dated November 14, 1984 stated our proposed actions for Hope Creek and Nine Mile Point 2, both of which are calendar year 1986 plants. This memo provides our proposed actions with respect to IDVPs for all calendar year 1986 and 1987 plants (as of October 31, 1984 Beville schedule).

There are currently (as of October 31, 1984) twelve plants with construction completion dates in 1986 and 1987; Hope Creek, Clinton 1, Comanche Peak 2, Nine Mile Point 2, Seabrook 1, Watts Bar 2, Beaver Valley 2, Braidwood 2, Vogtle 1, South Texas Project 1, Palo Verde 3 and Bellefonte 1. IE proposes the following actions with respect to these plants:

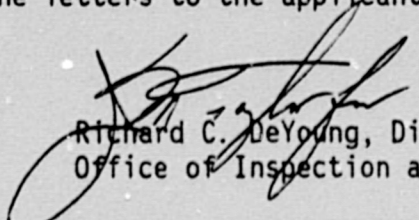
1. The applicants for Hope Creek and Nine Mile Point 2 have been requested to present their plans for providing additional design assurance as proposed in my November 14, 1984 memo to you.
2. Clinton is currently having an IDVP performed by Bechtel.
3. Comanche Peak 2 is similar to Unit 1, which is undergoing a significant design assurance review under the direction of NRR. Based upon the ongoing assurance activities associated with Unit 1, I request your recommendation regarding whether another IDVP or IDI is warranted for Unit 2.
4. Seabrook 1 was previously a 1985 CY plant (refer to my memo dated July 17, 1984) that has slipped to a 1986 CY plant. An IDI was conducted at Seabrook 1. Based on IDI results and resolution of IDI findings, we do not see a need to conduct an IDVP.
5. Watts Bar 2 is designed by a utility (TVA) that has not yet had its design process inspected via an IDI. Therefore, an IDI is tentatively scheduled to begin December 85 at Watts Bar 2. In selecting the systems, structures and components to be inspected, the IDI team will consider the results of the utility initiated quality assurance measures (e.g., the IDVP for Watts Bar 1).

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6. Neither an IDI nor an IDVP has been conducted on Beaver Valley 2. We recommend that the applicant be requested to present its bases for assuring the NRC staff that Beaver Valley 2 has been designed in accordance with the regulations and Safety Analysis Report commitments. Enclosure 1 is a proposed request to Duquesne Light Company for Beaver Valley 2.
7. Braidwood 2 is a calendar year 1986 plant with Braidwood 1 and Byron 2 being calendar year 1985 plants. These plants are all duplicate plants to Byron 1 which had an IDI performed by the NRC and an independent design review performed by Bechtel at the request of the applicant. In addition, the architect-engineer for the Byron-Braidwood projects is having its design process for the Clinton Power Station reviewed via an independent design verification program (IDVP) performed by Bechtel at the request of Illinois Power Company. We recommend that the applicant (Commonwealth Edison) for Byron 2, Braidwood 1 and Braidwood 2 be requested to present its plans for ensuring that all applicable corrective actions resulting from the Byron 1 IDI, Byron 1 IDR and the Clinton 1 IDVP be incorporated into the design of the subject plants. Enclosure 2 is a proposed request to Commonwealth Edison Company to present its plans for compliance with this request.
8. The applicant for Vogtle 1 is currently performing a pilot readiness review program. This pilot program appears to be an acceptable alternative to an IDVP. Hence, pending further staff assessment of the readiness review program, no IDVP will be requested for Vogtle 1 at this time.
9. South Texas Project 1 is currently performing a self-directed Engineering Assurance Program which the staff has previously accepted as an alternative for performing an IDVP.
10. Palo Verde 3 is a 1987 calendar year plant. Since NRR has evaluated an IDVP applicable to all three units at the Palo Verde site, no IDVP for Unit 3 will be requested.
11. Bellefonte 1 has not had an IDI nor an IDVP performed. We recommend action with respect to Bellefonte 1 be held in obedience pending results of the IDI for Watts Bar 2.

The enclosed letters have been prepared by IE for signature of the Director, Division of Licensing. We have assumed legal concurrence on the proposed letters will be a prerequisite to sending the letters to the applicant.



Richard C. DeYoung, Director
Office of Inspection and Enforcement

Enclosures:

1. Draft Beaver Valley 2 letter
2. Draft Byron 2, Braidwood 1, Braidwood 2 letter

cc: next page

Harold R. Denton

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cc w/enclosures:

D. Eisenhut, NRR

T. Novak, NRR

T. E. Murley, RI

J. P. O'Reilly, RII

J. G. Keppler, RIII

R. D. Martin, RIV

J. B. Martin, RV

G. Cunningham, ELD

Harold R. Denton

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Distribution w/enclosures:

~~BCS~~

PDR

QASIP Reading

QUAB Reading

R. C. DeYoung, IE

J. M. Taylor, IE

J. N. Grace, IE

J. G. Partlow, IE

G. T. Ankrum, IE

J. L. Milhoan, IE

R. Parkhill, IE

G. S. Lewis, IE

H. Wang, IE

E. V. Imbro, IE

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Docket No. 50-412

Mr. Earl J. Woolever
Vice President, Nuclear Construction
Duquesne Light Company
Robinson Plaza Building No. 2, Suite 210
PA Route 60
Pittsburgh, PA 15205

Dear Mr. Woolever:

Subject: Design Verification Activities - Beaver Valley 2

As you are aware, the NRC staff has been seeking additional assurance from applicants for operating licenses that the design process used for constructing their plants has fully complied with the Final Safety Analysis Report (FSAR) commitments and NRC regulations. To provide this necessary assurance, a number of applicants have undertaken an Independent Design Verification Program (IDVP), performed by an independent contractor, to review and evaluate the design process, including a sample of design details and as-built conditions. Other applicants have initiated a self-directed engineering assurance program conducted by the applicant with NRC oversight. In other cases the staff's Office of Inspection and Enforcement (IE) has conducted an Integrated Design Inspection (IDI). The staff needs to determine your plans in order to decide whether or not it will conduct an IDI or take other action to obtain the needed assurance. Accordingly I request that, within 60 days from the date of this letter, you present any plans you have for assuring that your plant has been designed in accordance with FSAR commitments.

The NRC staff is prepared to meet with you to discuss this request. If you desire a meeting, you should notify the project manager, Lisa Marie Lazo.

Sincerely,

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-455
50-456
50-457

Mr. Cordell Reed, Vice President
Commonwealth Edison Company
P.O. Box 767
Chicago, IL 60690

Dear Mr. Reed:

Subject: Design Verification Activities - Byron 2, Braidwood 1 and Braidwood 2

As you are aware, an Integrated Design Inspection (IDI) was performed on Byron 1 by the NRC Office of Inspection and Enforcement (OIE). An IDI is one of three principle ways OIE has for obtaining additional assurance that the design process used for constructing nuclear power plants has fully complied with the Final Safety Analysis Report commitments and NRC regulations. The other two ways include an Independent Design Verification Program (IDVP) which is authorized by the applicant and conducted by an independent qualified organization, or a self-directed engineering assurance program conducted by the applicant with NRC overview. In response to NRC concerns regarding the Byron 1 IDI, you requested that Bechtel Power Corporation perform an Independent Design Review (IDR). In addition, an Independent Design Review is being performed by Bechtel Power Corporation for the Clinton Nuclear Power Plant at the request of Illinois Power Company. Sargent and Lundy is the architect engineer for the Clinton Nuclear Power Plant. Since Byron 2, Braidwood 1 and Braidwood 2 are of similar design and have the same architect engineer and constructor as Byron 1, the staff is considering whether the above factors and possibly other factors, such as generic findings of the Clinton IDR, may support a conclusion that the design processes for Byron 2, Braidwood 1 and Braidwood 2 have met NRC regulations and licensing commitments. To assist us in this decision, it is requested that you provide within sixty days from the date of this letter the following information:

1. a summary of the differences in the design process between Byron 1 and each of the other three plants;
2. a discussion of the effects of these differences on your confidence that the design process for each of the other three plants is at least equivalent to Byron 1;
3. information on how Byron 1 IDI findings have been addressed for each of the other three plants;
4. information on how applicable Byron 1 IDR findings have been addressed for each of the other three plants;
5. information on how applicable Clinton IDR findings will be addressed for Byron 2, Braidwood 1 and Braidwood 2; and
6. a description of the aspects of your quality assurance program related to design which assure that the applicable design commitments are implemented at Byron 2, Braidwood 1 and Braidwood 2.

Mr. Cordell Reed

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We will be pleased to meet with you to discuss this request. In this regard, you should notify Janice Stevens (301) 492-7144 of my staff if you desire to meet with us so we can make the necessary arrangements.

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation