

October 6, 2003

The Honorable Charles E. Grassley
United States Senate
Washington, DC 20510-1501

Dear Senator Grassley:

I am responding to your July 3, 2003, letter to Mr. Dennis Rathbun requesting assistance in responding to a communication to you from Mr. Robert Roethig about the Davis-Besse Nuclear Power Station, Unit 1 (Davis-Besse). Mr. Roethig was concerned about the transport of spent nuclear fuel through Iowa and that the U.S. Nuclear Regulatory Commission (NRC) had not ordered Davis-Besse to permanently shut down.

At the outset, I would note that federal regulation of spent fuel transportation safety is shared by the U.S. Department of Transportation (DOT) and the NRC. DOT regulates the transport of all hazardous materials, including spent fuel, and has established regulations for shippers and carriers regarding, among other things, radiological controls, hazard communication, and training. For its part, NRC establishes design standards for the casks used to transport licensed spent fuel, and reviews and certifies cask designs prior to their use. NRC also conducts inspections to ensure that spent fuel packages are designed, fabricated, used, and maintained and that shipments are made, in accordance with NRC and DOT transportation safety regulations. In addition, NRC reviews and approves physical security plans for spent fuel shipments conducted by NRC licensees. The safety record associated with the current regulatory system for the transportation of spent fuel is exemplary - over 1,300 shipments of civilian fuel in NRC-certified packages and over 920,000 miles without an accidental radioactive release. Nonetheless, we continually examine the transportation safety program for improvements.

In regard to Davis-Besse, the NRC staff has demonstrated a strong commitment to public health and safety and has taken a number of actions to ensure that Davis-Besse will comply with NRC safety rules if the FirstEnergy Nuclear Operating Company (FENOC, or the licensee) is permitted to restart the plant. This is evidenced by the major effort the NRC has undertaken, as detailed below. Contrary to Mr. Roethig's assertion, it is NRC policy, as stated in the NRC Strategic Plan, that "[t]he protection of public health and safety remains paramount among our goals and will drive our decisions."

Davis-Besse is a pressurized water reactor located in Ottawa County, Ohio, approximately 30 miles east of Toledo, Ohio. Davis-Besse has been shut down since February 16, 2002, when it began a refueling outage that included inspecting reactor vessel head nozzles. On March 6, 2002, while Davis-Besse was shut down for refueling, FENOC employees discovered a cavity in the reactor vessel head. The cavity was the result of corrosion caused by long-term leakage of reactor coolant, which contains boric acid, from small cracks in one of the control rod drive mechanism nozzles that passes through the reactor vessel head.

The NRC staff subsequently determined that FENOC's failure to properly implement its boric acid corrosion control and corrective action programs was a performance deficiency that allowed reactor coolant system pressure boundary leakage to occur undetected for a prolonged time, resulting in reactor pressure vessel head degradation. Through its significance determination process, the NRC determined that the licensee's performance deficiency had high safety significance, which resulted in increased NRC inspections and other NRC actions. Although the licensee's failure resulted in an increase in the risk of a loss-of-coolant accident caused by either a rupture in the exposed cladding in the reactor pressure vessel head cavity or a control rod drive mechanism nozzle ejection due to a circumferential crack, nuclear power plants are designed with substantial safety margins that would accommodate a loss-of-coolant accident without jeopardizing public health and safety.

The NRC took a series of actions in response to the discovery of the cavity in the Davis-Besse reactor vessel head. An Augmented Inspection Team was sent to Davis-Besse on March 12, 2002, to collect factual information regarding the conditions that led to the head degradation. Additionally, the NRC issued a Confirmatory Action Letter to the licensee on March 13, 2002, which confirmed the licensee's agreement that NRC approval is required for restart of Davis-Besse. The Confirmatory Action Letter also documented a number of actions that the licensee must implement before the NRC will consider a restart. By letter dated April 29, 2002, the NRC informed FENOC that its corrective actions at Davis-Besse would receive enhanced NRC oversight, as described in NRC Inspection Manual Chapter 0350, "Oversight of Operating Reactor Facilities in a Shutdown Condition With Performance Problems." That enhanced monitoring began on May 3, 2002, and included the creation of an oversight panel to provide the required oversight during the plant shutdown and any future restart and following restart until a determination is made that the plant is ready for return to the NRC's normal Reactor Oversight Process.

The NRC's inspection and oversight activities evaluate the licensee's corrective actions related to the reactor vessel head issues, as well as the safety-related plant systems and programs. This broader perspective is necessary to ensure (a) that the conditions that led to the reactor head corrosion are not widespread throughout the plant; (b) that the physical condition of the plant is adequate; and (c) that the licensee's operations, maintenance, and engineering organizations are prepared to operate the plant safely, if it is permitted to restart.

Mr. Roethig asks why the NRC has not ordered the permanent shutdown of Davis-Besse, which would entail revoking FENOC's operating license for the plant. Under the NRC's enforcement policy, as well as Section 186 of the Atomic Energy Act, the NRC's authority to revoke a license is discretionary. With regard to the damage to the reactor vessel head at Davis-Besse, the NRC's rules and guidelines neither require nor preclude revocation of the license. Revocation of the license would only be considered if the licensee was either unwilling, or was unable to come into compliance with the NRC's rules and regulations. Thus far, this has not been the case with respect to the Davis-Besse licensee. With regard to the need for immediate action, Davis-Besse is currently shut down and is subject to increased scrutiny through the NRC's enhanced oversight process. Thus, there is no immediate need to revoke the Davis-Besse operating license to protect the health and safety of the public. Finally, a loss-of-coolant accident would not result in a nuclear "explosion," as implied by Mr. Roethig.

The ongoing processes associated with Davis-Besse provide reasonable assurance that Davis-Besse, if approved for operation, will operate in a manner that will pose no undue risk to public health and safety. The NRC is conducting routine meetings with the licensee and the general public, at locations near the Davis-Besse facility, to discuss FENOC's corrective actions. The meetings with the general public provide opportunities for members of the public to voice concerns and ask the NRC staff questions. The status of NRC review and oversight activities at Davis-Besse is available for public review on the NRC Web site (www.nrc.gov/reactors/operating/ops-experience/vessel-head-degradation.html).

Please be assured that before any decision is made regarding the restart of Davis-Besse, the NRC will make certain that the plant can and will be operated in a safe manner. If you have any questions, please contact Mr. Rathbun at 301-415-1776.

Sincerely,

/RA/

William D. Travers
Executive Director
for Operations

The ongoing processes associated with Davis-Besse provide reasonable assurance that Davis-Besse, if approved for operation, will operate in a manner that will pose no undue risk to public health and safety. The NRC is conducting routine meetings with the licensee and the general public, at locations near the Davis-Besse facility, to discuss FENOC's corrective actions. The meetings with the general public provide opportunities for members of the public to voice concerns and ask the NRC staff questions. The status of NRC review and oversight activities at Davis-Besse is available for public review on the NRC Web site (www.nrc.gov/reactors/operating/ops-experience/vessel-head-degradation.html).

Please be assured that before any decision is made regarding the restart of Davis-Besse, the NRC will make certain that the plant can and will be operated in a safe manner. If you have any questions, please contact Mr. Rathbun at 301-415-1776.

Sincerely,

/RA/

William D. Travers
Executive Director
for Operations

ADAMS Accession Number: ML032461279 (Package)

ADAMS Accession Number: ML032370471 (Incoming)

ADAMS Accession Number: ML032400109 (Response)

*previously concurred

OFFICE	PM:LPD3-2	LA:LPD3-2	SC:LPD3-2	Tech Editor	PD:LPD-3
NAME	FLyon	THarris* (PCoates for)	AMendiola*	PKleene*	WRuland*
DATE	9/26/03	9/15/03	9/15/03	08/29/03	9/12/03
OFFICE	D:DLPM	ADPT	D(A):NRR	EDO	D:OCA
NAME	LMarsh* (ELeeds for)	BSheron*	RBorchardt* (BSheron for)	WTravers	DRathbun
DATE	9/11/03	9/11/03	9/11/03	10/01/03	10/06/03

OFFICIAL RECORD COPY

DISTRIBUTION FOR EDO #G20030499 RESPONSE TO SEN. GRASSLEY CONCERNING R.
ROETHIG LETTER RE: DAVIS-BESSE NUCLEAR POWER PLANT

DATED: October 6, 2003

PUBLIC

PDIII-2 r/f

W. Travers (RidsEDOMailCenter)

S. Collins

C. Paperiello

W. Kane

P. Norry

W. Dean

S. Burns/K. Cyr

D. Rathbun

L. Cox

J. Dyer, RIII (RidsRgn3MailCenter)

W. Borchardt (RidsNrrOd)

B. Sheron/K. Johnson (RidsNrrAdpt)

OGC (RidsOgcRp)

OPA (RidsOpaMailCenter)

OCA (RidsOcaMailCenter)

NRR Mailroom, EDO #G20030499 (RidsNrrWpc)

W. Ruland (RidsNrrDlpmLpdiii)

A. Mendiola (RidsNrrDlpmLpdiii2)

J. Hopkins (RidsNrrPMJHopkins)

F. Lyon (RidsNrrPMFLyon)

T. Harris (RidsNrrLATHarris)

EDO # G20030499 (RidsEdoMailCenter)

C. Lipa, RIII