March 8, 2010

Mr. Theodore Robinson, Esq.
Citizen Power
2121 Murray Avenue
Pittsburgh, PA 15217

Dear Mr. Robinson:

On behalf of the U.S. Nuclear Regulatory Commission (NRC or the staff), I am responding to your letter dated December 31, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML100150207), expressing your concern regarding the inspection program to be implemented by FirstEnergy Nuclear Operating Company (FENOC) at the Beaver Valley Power Station (BVPS), Units 1 and 2, to identify corrosion of the containment liner that originates from the outside surface of the liner.

Your letter was in response to the NRC's letter dated October 24, 2009 (ADAMS Accession Number ML092230728). As described in that letter, the staff considers the degradation of the containment liner plate an important issue since the liner plate, in conjunction with the concrete behind the liner, provides an essentially leak-tight pressure barrier during all postulated accident conditions. The staff's evaluation of FENOC's proposed actions is addressed in "Safety Evaluation Report Related to the License Renewal of the Beaver Valley Power Station, Units 1 and 2," which was issued on June 8, 2009 (ADAMS Accession Number ML091600216). In addition, the staff issued Supplement 1 to the BVPS, Units 1 and 2, Safety Evaluation Report (SER), dated October 6, 2009 (ADAMS Accession Number ML092520531), which evaluates supplemental information provided by FENOC related to their liner inspection program. Based on the staff's evaluation described in the supplement to the SER, the staff has concluded that the commitments made by the applicant for the visual and volumetric examinations of the liner plate are acceptable and provide reasonable assurance that the containment liner plate at BVPS, Units 1 and 2, will continue to remain functional during the period of extended operation.

We appreciate the comments provided in your letter dated December 31, 2009. Below are specific responses to some of the items that you addressed in your letter:

1. Regarding your comment that we did not respond to the second issue in your letter dated August 27, 2009 (ADAMS Accession Number ML092460728) related to the suitability of the Integrated Leak Rate Test (ILRT) to detect containment liner corrosion on the outside of the liner, we would like to clarify our prior response. Although the ILRT does not provide specific information on the condition of the outer surface of the containment liner, a successful ILRT does provide assurance, as a defense-in-depth indication, that the whole containment system (steel liner and 54-inch thick concrete) is functioning as intended, consistent with regulatory requirements.

2. Regarding your comment that the NRC had previously rejected use of Electric Power Research Institute Technical Report (TR) TR-107514 in the North Anna/Surry SER of December 2002 because it had not been reviewed or approved by the staff, the staff has

developed experience using this report in various applications, and we have confidence that the methodology in the report, appropriately adjusted using a 95/95 confidence criterion as described in Supplement 1 to the BVPS, Units 1 and 2, SER (ADAMS Accession Number ML092520531), will adequately characterize the condition of the containment liner.

3. Regarding your comments on the inspection findings that are "attributable to fabrication/erection," such findings would include geometric features such as thickness changes that are attributable to plate thickness mismatches, and grinding or welding artifacts, and would not include indications of true degradation from corrosion, pitting or other aging-related effects. Any findings that are aging related would be classified as a "failure" in the statistical analysis and would be appropriately considered in the sampling program.

4. Regarding your comments on the sampling occurring over a period of time and the need for adjustment to the results, the timing of the inspections provides benefits that would outweigh any need for adjustments. As opposed to a delayed sampling approach with all sampling at one time, there is the benefit of early detection for those areas that may be experiencing degradation and are sampled early. As opposed to an early sampling approach with all sampling at one time, there is an increased likelihood of detecting degradation because of the increased time that such degradation (in the unlikely event that it is occurring) would have to manifest itself in a detectable condition. Therefore, the sampling over a period of time, including both random and non-random samples as described in Supplement 1 to the BVPS, Units 1 and 2, SER, provides benefits over concentrating the sampling at one time. In all cases should aging-related degradation be identified, we expect the utility to reassess their sampling schedule and plan (e.g., number of areas to be sampled), consistent with their Corrective Action Program; we will oversee these activities through NRC inspection follow-up.

In summary, the staff has reviewed your comments and has concluded that no changes to the conclusions in our safety evaluation are necessary. Note that the NRC staff will brief the Advisory Committee on Reactor Safeguards (ACRS) on current staff efforts to address the generic aspects of containment liner corrosion in a future meeting. We anticipate that this briefing will cover a variety of containment designs and operating experience, including that of Beaver Valley. Meetings of the ACRS are typically open to the public and are noticed on NRC's webpage at http://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/2010/. We will ensure that you are contacted once this meeting has been publically noticed.

Sincerely,

/RA by Bruce Boger for/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

cc: See next page

developed experience using this report in various applications, and we have confidence that the methodology in the report, appropriately adjusted using a 95/95 confidence criterion as described in Supplement 1 to the BVPS, Units 1 and 2, SER (ADAMS Accession Number ML092520531), will adequately characterize the condition of the containment liner.

3. Regarding your comments on the inspection findings that are "attributable to fabrication/erection," such findings would include geometric features such as thickness changes that are attributable to plate thickness mismatches, and grinding or welding artifacts, and would not include indications of true degradation from corrosion, pitting or other aging-related effects. Any findings that are aging related would be classified as a "failure" in the statistical analysis and would be appropriately considered in the sampling program.

4. Regarding your comments on the sampling occurring over a period of time and the need for adjustment to the results, the timing of the inspections provides benefits that would outweigh any need for adjustments. As opposed to a delayed sampling approach with all sampling at one time, there is the benefit of early detection for those areas that may be experiencing degradation and are sampled early. As opposed to an early sampling approach with all sampling at one time, there is an increased likelihood of detecting degradation because of the increased time that such degradation (in the unlikely event that it is occurring) would have to manifest itself in a detectable condition. Therefore, the sampling over a period of time, including both random and non-random samples as described in Supplement 1 to the BVPS, Units 1 and 2, SER, provides benefits over concentrating the sampling at one time. In all cases should aging-related degradation be identified, we expect the utility to reassess their sampling schedule and plan (e.g., number of areas to be sampled), consistent with their Corrective Action Program; we will oversee these activities through NRC inspection follow-up.

In summary, the staff has reviewed your comments and has concluded that no changes to the conclusions in our safety evaluation are necessary. Note that the NRC staff will brief the Advisory Committee on Reactor Safeguards (ACRS) on current staff efforts to address the generic aspects of containment liner corrosion in a future meeting. We anticipate that this briefing will cover a variety of containment designs and operating experience, including that of Beaver Valley. Meetings of the ACRS are typically open to the public and are noticed on NRC's webpage at http://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/2010/. We will ensure that you are contacted once this meeting has been publically noticed.

Sincerely,
/RA by Bruce Boger for/
Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

cc: See next page
DISTRIBUTION: Y020100008/EDATS: NRR-2010-0010
See next page
*concurrence by e-mail
ADAMS Accession Nos. ML100640700 (Package); ML100151704 (Incoming); ML100560345 (Response)

OFFICE	PM:RPB2:DLR	LA:DLR	BC:RPB2:DLR	SL:DLR	BC:RASB:DLR*
NAME	RPlasse	IKing(YEdmonds for)	DWrona	AHiser	RAuluck
DATE	03/01/10	03/05/10	03/01/010	03/01/10	03/01/10

OFFICE	BC:EMCB:DE*	BC:RI*	D:DLR	D:NRR
NAME	MKhanna	RConte	BHolian	ELeeds(BBoger for)
DATE	03/05/10	03/05/10	03/05/10	03/08/10

OFFICIAL RECORD COPY

Letter to T. Robinson from E. Leeds dated March 8, 2010

SUBJECT: CITIZEN POWER QUESTIONS REGARDING FENOC INSPECTION PROGRAM TO IDENTITY CORROSION OF THE CONTAINMENT LINER AT BEAVER VALLEY

DISTRIBUTION: Y020100008/EDATS: NRR-2010-0010

HARD COPY:
DLR RF

E-MAIL:
PUBLIC
RidsNrrOd Resource
RidsNrrMailCenter Resource
RidsNrrDlr Resource
RidsNrrDlrRpb1 Resource
RidsNrrDlrRpb2 Resource
RidsNrrDlrRer1 Resource
RidsNrrDlrRer2 Resource
RidsNrrDlrRerb Resource
RidsNrrDlrRpob Resource
RidsNrrDciCvib Resource
RidsNrrDciCpnb Resource
RidsNrrDciCsgb Resource
RidsNrrDraAfpb Resource
RidsNrrDraApla Resource
RidsNrrDeEmcb Resource
RidsNrrDeEeeb Resource
RidsNrrDssSrxb Resource
RidsNrrDssSbpb Resource
RidsNrrDssScvb Resource
RidsOgcMailCenter Resource

KHoward
RPlasse
NMorgan
MModes, RI
PCataldo, RI
DWerkheiser, RI

Beaver Valley Power Station,
Units 1 and 2

cc:

Joseph J. Hagan
President and Chief Nuclear Officer
FirstEnergy Nuclear Operating Company
Mail Stop A-GO-19
76 South Main Street
Akron, OH 44308

James H. Lash
Senior Vice President of Operations
and Chief Operating Officer
FirstEnergy Nuclear Operating Company
Mail Stop A-GO-14
76 South Main Street
Akron, OH 44308

Danny L. Pace
Senior Vice President, Fleet Engineering
FirstEnergy Nuclear Operating Company
Mail Stop A-GO-14
76 South Main Street
Akron, OH 44308

Jeannie M. Rinckel
Vice President, Fleet Oversight
FirstEnergy Nuclear Operating Company
Mail Stop A-GO-14
76 South Main Street
Akron, OH 44308

Paul A. Harden
Vice President, Nuclear Support
FirstEnergy Nuclear Operating Company
Mail Stop A-GO-14
76 South Main Street
Akron, OH 44308

David W. Jenkins, Attorney
FirstEnergy Corporation
Mail Stop A-GO-15
76 South Main Street
Akron, OH 44308

Manager, Fleet Licensing
FirstEnergy Nuclear Operating Company
Mail Stop A-GO-2
76 South Main Street
Akron, OH 44308

Director, Fleet Regulatory Affairs
FirstEnergy Nuclear Operating Company
Mail Stop A-GO-2
76 South Main Street
Akron, OH 44308

Manager, Site Regulatory Compliance
FirstEnergy Nuclear Operating Company
Beaver Valley Power Station
Mail Stop A-BV-A
P.O. Box 4, Route 168
Shippingport, PA 15077

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 298
Shippingport, PA 15077

Cliff Custer
FirstEnergy Nuclear Operating Company
Beaver Valley Power Station
P.O. Box 4, Route 168
Shippingport, PA 15077

Steve Dort
FirstEnergy Nuclear Operating Company
Beaver Valley Power Station
P.O. Box 4, Route 168
Shippingport, PA 15077

Mike Banko
FirstEnergy Nuclear Operating Company
Beaver Valley Power Station
P.O. Box 4, Route 168
Shippingport, PA 15077