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System Energy Resources, Inc.
1340 Echelon Parkway
Jackson, MS 39286-1995

CNRO-2005-00058

November 4, 2005

U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Attention: Document Control Desk

DOCKET: 52-009

SUBJECT: Response to Request for Additional Information Regarding the Grand Gulf Early Site Permit Draft Environmental Impact Statement (TAC MC 1379)

REFERENCE:

1. System Energy Resources, Inc. (SERI) letter to USNRC – Early Site Permit Application (CNRO-2003-00054), dated October 16, 2003.
2. SERI letter to USNRC – Grand Gulf Early Site Permit Application Revision 2 (TAC NO. MC 1378) (CNRO-2005-00055), dated October 3, 2005.
3. SERI letter to USNRC – Draft Environmental Impact Statement (DEIS) For an Early Site Permit (ESP) at the Grand Gulf ESP Site (TAC NO. MC1379) (CNRO-2005-00039), dated July 14, 2005.

CONTACT:

Name	George A. Zinke
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E-Mail Address	gzinke@entergy.com
Phone Number	601-368-5381

DOCUMENT COMPONENTS:

One (1) CD-ROM is included in this submission. The CD-ROM contains the following eight (8) files:

001_EAB_Noble_Gas_Only_Output.pdf, 43KB, publicly available
002_Run_1_Output.pdf, 122 KB, publicly available
003_Run_2_Output.pdf, 148 KB, publicly available
004_EAB_Noble_Only.dat, 1 KB, publicly available
005_Run_1_Input.dat, 16 KB, publicly available
006_Run_2_Input.dat, 16 KB, publicly available
007_GGNSESP1bout.DAT, 171 KB, publicly available
008_GGNSESP1b.dat, 3 KB, publicly available

D069

Add: Jason L. Fleming

On October 28, 2005, the NRC requested additional information relating to the Draft Environmental Impact Statement. This letter transmits information as outlined in Attachment 1 to this letter. Should you have any questions, please contact me.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 4, 2005.

Sincerely,

George A. Zinke
Project Manager
System Energy Resources, Inc.

Attachment: Attachment 1

Enclosure: one CD-ROM

cc: Mr. R. K. Anand; USNRC/NRR/DRIP/RNRP
Mr. C. Brandt; PNL
Ms. D. Curran; Harmon, Curran, Spielberg, & Eisenberg, L.L.P.
Mr. W. A. Eaton; (ECH) (w/o enclosure)
Ms. E. Hickey; PNL
Mr. B. S. Mallett; Administrator, USNRC/RIV
Mr. J. H. Wilson; USNRC/NRR/DRIP/RLEP

Resident Inspector's Office: GGNS

ATTACHMENT 1

Request:

Provide latest input and output data for GASPARII and LAPTADII Codes.

Response:

See Files (GASPARII):
001_EAB_Noble_Gas_Only_Output.pdf
002_Run_1_Output.pdf
003_Run_2_Output.pdf
004_EAB_Noble_Only.dat
005_Run_1_Input.dat
006_Run_2_Input.dat

See Files (LADTAPII):
007_GGNSESP1bout.DAT
008_GGNSESP1b.dat

Request:

Provide information related to Cover Letter Reference 3, Comment 9.

Response:

Methodology used to determine source terms for the liquid and gaseous release evaluations is documented in the GGNS ESP Project calculation packages. The source terms are a composite based on the highest release for each radionuclide considered for all plant types included in the Plant Parameter Envelope (PPE) development.

Liquid releases were determined as follows:

As several different plant types are under consideration for the proposed site, a composite release that bounds the potential release from two (2) ABWR units, two (2) AP1000 units and four (4) ACR700 plant types was used. Annual average liquid releases for each of these plant types were compared. The most limiting isotopic releases were identified and then included in the composite release. Note: Westinghouse International Reactor Innovative and Secure (IRIS) specific release information was not available. The AP1000 data (for one unit) was assumed to bound the releases from 3 single IRIS units (3000 MWt, 1005 MWe).

Co-56, Rh-103m, Ag-110, and Ba-137m were not included in the LADTAP II input since LADTAP II calculations can only be performed for radionuclides that are in the code dose conversion factor library.

Gaseous releases were determined as follows:

The types of reactors from which the bounding parameters were determined, are:

- Advanced Boiling Water Reactor (ABWR) – 2 units
- Advanced Pressurized Water Reactor (AP1000) – 2 units
- Gas Turbine-Modular Helium Reactor (GT-MHR) – 8 modules
- Advanced Canada Deuterium Uranium (CanDU) Reactor (ACR-700) – 4 units
- International Reactor Innovative and Secure (IRIS) – 6 units

The activity of radionuclides released was obtained from a composite of the releases for each evaluated plant type. For each radionuclide, the highest release for any proposed plant was used for the source term.