

RS-11-150

September 13, 2011

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

Clinton Power Station, Unit 1  
Facility Operating License No. NPF-62  
NRC Docket No. 50-461

Subject: Voluntary Response to NRC Regulatory Issue Summary 2011-06, "Pre-Application Communication and Voluntary Submittal of Schedule for Future Molybdenum-99 Facility Licensing Actions for NRC Review"

On July 1, 2011, the NRC issued Regulatory Issue Summary (RIS) 2011-06, "Pre-Application Communication and Voluntary Submittal of Schedule for Future Molybdenum-99 Facility Licensing Actions for NRC Review." The RIS was issued to promote early and frequent communication between the NRC and addresses regarding the scheduling of application submissions, environmental reviews, construction plans, and other pre-application activities associated with molybdenum-99 isotope utilization, production and processing. The NRC requested that all potential applicants submit a voluntary written response within 30 days of the date of the RIS or as soon as the requested information is known.

The Attachment to this letter provides the Exelon Generation Company, LLC (EGC) voluntary response to the requested information for Clinton Power Station.

There are no regulatory commitments made in this letter. Should you have any questions concerning this letter, please contact Timothy A. Byam at (630) 657-2804.

Respectfully,



David M. Gullott  
Manager, Licensing  
Exelon Generation Company, LLC

Attachment: Voluntary Response to NRC Regulatory Issue Summary 2011-06 for Clinton Power Station

## ATTACHMENT

### Voluntary Response to NRC Regulatory Issue Summary 2011-06 for Clinton Power Station

#### **NRC Request:**

##### *Design and Licensing Submittal Information*

- (1) *How many applications will be submitted to the NRC? When (month and year) will the NRC receive these application(s) for review? What NRC licensing actions will the application(s) request? What are the project milestones for the applicant and the NRC (i.e., review length)?*

#### **Response:**

Exelon Generation Company, LLC (EGC) expects to submit to the NRC as many as two License Amendment Requests (LARs) to revise the Clinton Power Station (CPS) operating license. EGC has not completed a review of the proposed test program against the criteria of 10 CFR 50.59, "Changes, tests and experiments," to determine if the test program will require prior NRC review and approval before implementing. Therefore, contingent upon the results of the 10 CFR 50.59 evaluation, the first LAR would request NRC review and approval for the performance of a molybdenum test not described in the CPS Safety Analysis Report. If this LAR is required, it is expected to be submitted in October 2011 with performance of the test in May 2012 in accordance with the current schedule. The second LAR would support the production of molybdenum-99 via neutron capture at CPS. This LAR is scheduled to be submitted in September 2012 with the expectation of completing the required modification of the plant in December 2013 and beginning molybdenum-99 production in January 2014.

#### **NRC Request:**

- (2) *Under which part(s) of 10 CFR will the application(s) seek licenses? In particular, will license applications for processing facilities be submitted under 10 CFR Part 50 for consideration as a production facility or under 10 CFR Part 70 as a processing facility? Will an exemption from any part of the regulations be sought? If so, has the applicant accounted for the increase in time for the licensing process (a possible six month increase in time should be allotted).*

#### **Response:**

The LARs to the existing CPS license will be submitted under 10 CFR Part 50 for consideration as a production facility. Specifically, the LARs will be submitted under 10 CFR 50.59 and 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit." No exemptions from any part of the regulations are anticipated.

#### **NRC Request:**

- (3) *Has a location been selected for each proposed unit at the site? If so, please describe.*

#### **Response:**

Yes, however, specific details on the design of the proposed process cannot be released at this time while awaiting patent filings.

ATTACHMENT

Voluntary Response to NRC Regulatory Issue Summary 2011-06 for  
Clinton Power Station

**NRC Request:**

(4) *When will the environmental report be submitted for review?*

**Response:**

It is anticipated that the scope of these license changes will not require an environmental impact statement or environmental assessment. An evaluation of the proposed changes against the eligibility criterion for a categorical exclusion set forth in 10 CFR 51.22, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," will be included with the LARs.

**NRC Request:**

(5) *What design will be used for each facility? What is the current status of the development of this design? Please provide a schedule for completing the design.*

**Response:**

As noted above in the response to request 3, specific details of the design cannot be provided at this time. However, the development of this design is approximately 50% complete. The plant modification design change package is scheduled to be issued in October 2012.

**NRC Request:**

(6) *Are there vendors or consultants assisting in the preparation of the application(s)? If so, please describe their roles and responsibilities in the design and licensing activities.*

**Response:**

EGC is working with GE Hitachi (GEH) in the preparation of the system development, design and licensing activities. It is anticipated that an architect engineering firm will assist in the plant modification design change package preparation.

**NRC Request:**

(7) *What actions, if any, have you taken or propose to take regarding 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material," license for possession of byproduct material (or a State byproduct materials license if in an Agreement State)?*

**Response:**

The CPS Facility Operating License currently addresses the receipt, possession and use of byproduct material in accordance with 10 CFR Part 30. EGC added additional requirements for the receipt, production, possession, transfer, and use of Cobalt-60 to the facility Operating License when implementing the Cobalt-60 isotope generation project at CPS. Additional changes to the CPS Operating License addressing the receipt, possession and use of molybdenum-99 in accordance with 10 CFR Part 30 are anticipated to be required to support this project. Any proposed changes to the CPS Facility Operating License will be included with the LAR(s) associated with this project.

ATTACHMENT

Voluntary Response to NRC Regulatory Issue Summary 2011-06 for  
Clinton Power Station

**NRC Request:**

*White Papers and Technical/Topical Reports*

- (1) *Are there current plans to submit for review and approval white papers or technical/topical reports related to design features, policy resolution, or technical issues? Please provide a schedule for submitting future anticipated reports.*

**Response:**

Any required Technical/Topical Reports or white papers will be provided to the NRC along with the LAR(s). Routine project status updates, that include project scope, schedule and technical information, will be provided to the appropriate NRC staff. The schedule for submittal of these reports has not yet been developed.