

RS-24-005

February 8, 2024

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: Additional Information Supporting Request for Partial Site Release

- References:
1. Letter from P. R. Simpson (Constellation Energy Generation, LLC) to U.S. NRC, "Request for Partial Site Release," dated June 7, 2023
 2. Email from J. Wiebe (U.S. NRC) to K. Nicely (Constellation Energy Generation, LLC), "Preliminary RAIs for Clinton Partial Site Release (EPID: L-2023-LLA-0088)," dated December 29, 2023

In Reference 1, Constellation Energy Generation, LLC (CEG) requested NRC approval of a partial site release of the Clinton Power Station (CPS) site in accordance with 10 CFR 50.83, "Release of part of a power reactor facility or site for unrestricted use." The NRC requested additional information that is needed to complete review of the partial site release in Reference 2. In response to this request, CEG is providing the attached information.

There are no regulatory commitments contained in this letter. Should you have any questions concerning this letter, please contact Mr. Kenneth M. Nicely at (779) 231-6119.

Respectfully,

Mark D. Humphrey
Sr. Manager Licensing
Constellation Energy Generation, LLC

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Attachment: Response to Request for Additional Information

cc: NRC Regional Administrator, Region III
NRC Senior Resident Inspector – Clinton Power Station
Illinois Emergency Management Agency – Division of Nuclear Safety

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RAI-1

Discussion

Clarify what land use impacts occur in the area of Clinton Lake Marina. Describe what recreational activities occur in the area (e.g. Fishing, Hunting, Hiking, etc.). Provide a reference if this information is contained in a previous analysis and a discussion as to whether impacts are bounded by previous environmental impact statements.

Basis

The regulation 10 CFR 50.83(b)(2) requires a description of the part of the facility or site to be released and 10 CFR 50.83(b)(5) requires a discussion that provides the reasons for concluding that the environmental impacts associated with the licensee's proposed release of the property will be bounded by appropriate previously issued environmental impact statements.

Response

On August 29, 1980, Illinois Power Company (IP) submitted an application, including a Final Safety Analysis Report (FSAR) and Environmental Report (i.e., Reference 1), requesting issuance of operating licenses for Clinton Units 1 and 2. A description of the recreational activities that occur in the area was provided in Section 2.1.3.3, "Recreational Development Plan," of the Environmental Report. Section 2.1.3.3 states, in part:

IP will also lease to an outside operator the Marina, which includes auto and trailer parking, boat ramps, boat rental and storage, hoist, office and maintenance, concessions, fish cleaning facilities, flush toilets, and sewage treatment plant.

Following review of the information in Reference 1, the NRC issued the Final Environmental Statement for Clinton Power Station (CPS) (i.e., Reference 2) to augment and supplement the environmental review described in the Final Environmental Statement – Construction Phase that was issued in October 1974.

The transfer of land for the Clinton Lake Marina to DeWitt County, Illinois does not affect the conclusions documented in the Reference 2 Final Environmental Statement because the transfer of land did not involve a change in the land use or recreational activities that occur on the property. Prior to the transfer, the land for the marina was leased to an outside operator as described in Reference 1. The transfer resulted in a change in ownership of the land from AmerGen Energy Company, LLC to DeWitt County, Illinois. Therefore, the impacts remain bounded by the Reference 2 environmental impact statement.

RAI-2

Discussion

Please confirm if any historic and cultural resources occur in the area of Clinton Lake Marina. Additionally, provide a reference if this information is contained in a previous analysis and a

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discussion as to whether impacts to continue to be bounded by the environmental impact statements.

Basis

The regulation 10 CFR 50.83(b)(5) requires a discussion that provides the reasons for concluding that the environmental impacts associated with the licensee's proposed release of the property will be bounded by appropriate previously issued environmental impact statements.

Response

Cultural resources include prehistoric era and historic era archaeological sites and objects, architectural properties and districts, and traditional cultural properties, which are defined as significant objects or places important to Native American tribes for maintaining their culture. Of particular concern are those cultural resources that may be considered eligible for listing on the National Register of Historic Places (NRHP). Any cultural resources listed on or eligible for the NRHP are considered historic properties under the National Historic Preservation Act of 1966.

Based on a recent review of offsite cultural resources within a 6-mile radius of CPS, there are no NRHP or state historic preservation officer (SHPO) DOE listed cultural resources listed within six miles of CPS. This encompasses the Clinton Lake Marina that is located approximately 1.5 miles south of the CPS site.

In addition, in Reference 3 the NRC documented a review of the historic and cultural resources in the area around CPS in support of an early site permit. The release of the marina property remains bounded by Reference 3 because the transfer of land did not involve a change in the land use or recreational activities that occur on the property and did not involve ground disturbing activities. The transfer resulted in a change in ownership of the land from AmerGen Energy Company, LLC to DeWitt County, Illinois.

RAI-3

Discussion

The application (ADAMS Accession No. ML23158A262) contains the following statement. "The last liquid radioactive release from the plant was in 1992 in the circulating water discharge canal which is on the north side of Salt Fork. This property is located on the south side of Salt Fork and not in the groundwater gradient of the discharge canal." (pg-4, Attachment – Supporting Information for Request for Partial Site Release). Describe any monitoring and or sampling that was performed in this area [Clinton Lake Marina] to demonstrate it was not impacted and thus a justification for concluding, "The review identified no recorded events of any spills, leaks, or uncontrolled release of radioactive material on this land." (pg-3, Attachment – Supporting Information for Request for Partial Site Release).

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Basis

The regulation 10 CFR 50.83(a)(2) requires a historical site assessment to identify potential or known sources of radioactive material or radioactive contamination that may have affected the property to be released.

Response

Periodic monitoring and sampling are performed in accordance with the Radiological Environmental Monitoring Program for CPS. The objectives of the program are to provide data on measurable levels of radiation and radioactive materials in the site environs, and to evaluate the relationship between quantities of radioactive material released from the plant and resultant radiation doses to individuals from principal pathways of exposure. The program provides representative measurements of radiation and of radioactive materials in those exposure pathways and for those radionuclides that lead to the highest potential radiation exposures of members of the public resulting from the station operation. The Radiological Environmental Monitoring Program supplements the radiological effluent monitoring program by verifying that the measurable concentrations of radioactive materials and levels of radiation are not higher than expected on the basis of the effluent measurements and the modeling of the environmental exposure pathways. The CPS Offsite Dose Calculation Manual (ODCM) implements the Radiological Environmental Monitoring Program.

Monitoring and sampling of the areas near the Clinton Lake Marina and the discharge location from the 1992 liquid release, performed as part of the Radiological Environmental Monitoring Program, are discussed below. In accordance with the ODCM, water and sediment samples near/downstream of the discharge canal are obtained as follows.

1. Monthly surface water composite samples for gamma analysis, and quarterly composite samples for tritium are collected at 0.4 miles SE of the station (sample location CL-90 at the discharge canal) and 6.1 miles ENE of the station (sample location CL-91 upstream of the discharge canal).
2. Semiannual sediment samples for gamma analysis are collected 2.1 miles SE downstream (sample location CL-7B) from the discharge canal in a location with the potential for recreational activity.
3. In addition to water and sediment samples, at least three types of recreationally important fish samples are collected in the vicinity of the plant discharge area 3.4 miles E of the station (sample location CL-19). Gamma analysis is performed on these samples which are collected semiannually.

Conclusions documented in the most recent Annual Radiological Environmental Operating Report indicate no detected activity when sample results were less than the required lower limit of detection. Sample results were reported as follows.

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- Fish and shoreline sediment samples were analyzed for concentrations of gamma-emitting nuclides. No fission or activation products were detected in fish or shoreline sediment samples.
- Surface, drinking, and well water samples were analyzed for concentrations of tritium and gamma-emitting nuclides. Drinking water samples were also analyzed for concentrations of gross beta and iodine-131 (I-131). No fission or activation products were detected. No tritium or gross beta activity was detected.
- Air particulate samples were analyzed for concentrations of gross beta and gamma-emitting nuclides. No fission or activation products were detected.
- Iodine-131 analyses were performed on weekly air samples. No fission products were detected.
- High sensitivity I-131 analyses and gamma analyses were performed on cow milk samples. Concentrations of naturally occurring potassium-40 (K-40) were consistent with those detected in previous years. No fission or activation products were detected.
- Food product samples were analyzed for concentrations of gamma-emitting nuclides. No fission or activation products were detected.
- Grass samples were analyzed for concentrations of gamma-emitting nuclides. No fission or activation products were detected.
- Environmental gamma radiation measurements were performed quarterly using Dosimeters of Legal Record. Levels detected were consistent with those observed in previous years.

Analysis of the sample results as discussed above supports Constellation Energy Generation, LLC's conclusion that the Clinton Lake Marina property has no reasonable potential for residual radioactivity in excess of natural background or fallout levels. Therefore, this property qualifies as a non-impacted area as defined in 10 CFR 50.2.

RAI-4

Discussion

Clarify which table is being referenced in the statement... "The Updated Safety Analysis Report (USAR) described the current land in a table of total acreage within the outer site boundary and has no other mention of the property." (pg-1, Attachment – Supporting Information for Request for Partial Site Release)

Basis

The regulation in 10 CFR 50.83(b)(4) requires that the licensee submit the results of the evaluation performed in accordance with 10 CFR 50.59 for non-impacted areas.

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Response

The Clinton Lake Marina is mentioned in USAR Table 2.1-1, "Acreage of Clinton Power Station," Table 2.1-4, "Peak Day Users of Clinton Lake Recreational Area Based on Available Parking Capacity, 1990," and Section 2.2.2.4, "Waterways." USAR Section 2.1.1.2, "Site Area Map," discusses the total area encompassed by the outer site boundary and refers to a portion that is not station property as identified by the property exception areas listed in Table 2.1-1. Table 2.1-1 lists the total acreage of CPS, exception areas, and the total acreage within the outer site boundary.

The Clinton Lake Marina was listed as an exception area in Table 2.1-1 until a recent change to the USAR was implemented to correct discrepancies identified in the site acreage values. As part of this recent USAR change, a note was added to Table 2.1-1 to indicate that the Clinton Lake Marina was granted to DeWitt County, Illinois on a quitclaim deed.

RAI-5

Discussion

Clarify whether there would be any vegetation removal, ground disturbing activities, or construction associated with the partial site release.

Basis

NRC is required to consult under Section 7 of the Endangered Species Act of 1973 (ESA; 16 USC 1531 et seq.) if actions authorized by the NRC may affect species protected under the ESA. Similarly, NRC is required to conduct consultation under Section 106 of the National Historic Preservation Act of 1966 (NHPA, 16 USC 470 et seq.) for if actions authorized by the NRC may adversely affect historic and cultural resources, as defined in NHPA. Construction, vegetation removal, and other ground disturbing activities have the potential to affect ESA-protected species and cultural and historic resources.

Response

The proposed partial site release does not involve new vegetation removal, ground disturbing activities, or construction. The transfer of land for the Clinton Lake Marina to DeWitt County, Illinois does not affect the conclusions documented in the Reference 2 Final Environmental Statement because the transfer of land does not involve a change in the land use or recreational activities that occur on the property. Prior to the transfer, the land for the marina was leased to an outside operator as described in Reference 1. The transfer resulted in a change in ownership of the land from AmerGen Energy Company, LLC to DeWitt County, Illinois. Therefore, the impacts remain bounded by the Reference 2 environmental impact statement.

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References

1. Illinois Power Company, "Clinton Power Station Units 1 and 2 Environmental Report, Operating License Stage," dated August 1980 (ADAMS Accession No. ML19337A054)
2. NUREG-0854, "Final Environmental Statement Related to the Operation of Clinton Power Station, Unit No. 1," dated May 1982
3. NUREG-1815, "Environmental Impact Statement for an Early Site Permit (ESP) at the Exelon ESP Site," dated July 2006