Clinton ESP Open Items

Open Item #	DSER Section	Subject
2.1-1	2.1.2.3	Demonstrate that the applicant has the legal right to control the exclusion area, or has an irrevocable right to obtain such control. [As noted in Section 2.1.2.1 of this SER, the applicant plans to enter into an agreement with AmerGen, before any construction, that will grant Exelon an exclusive and irrevocable option to purchase, enter into a long-term lease for, and/or procure other legal right in the land required for the EGC ESP facility. The applicant has therefore not attempted to demonstrate that it currently has the authority to determine all activities, including exclusion or removal of personnel and property from the area, as required by 10 CFR 100.3. To meet the exclusion area control requirements of 10 CFR 100.21(a), "Non-Seismic Site Criteria," and 10 CFR 100.3, the applicant does not need to demonstrate total control of the property before issuance of the ESP. However, the applicant must provide reasonable assurance that it can acquire the land (i.e., that it has the legal right to obtain control of the exclusion area). The applicant should demonstrate that it has the legal right to control the exclusion area or has irrevocable right to obtain such control. Specifically, the applicant should provide a detailed explanation of the corporate relationship between Exelon (the parent company) and AmerGen (the subsidiary).]
2.3-1	2.3.1.3	Identify the meteorological data to use in evaluating the performance of a mechanical draft cooling tower ultimate heat sink (UHS) with respect to maximum evaporation and minimum water cooling as discussed in Regulatory Guide 1.27. [The staff believes that the applicant did not adequately identify the meteorological data to use in evaluating the performance of a mechanical draft cooling tower UHS with respect to maximum evaporation and minimum water cooling, as discussed in RG 1.27. The controlling meteorological variables used to evaluate cooling tower performance are the wet-bulb temperature and the coincident dry-bulb temperature. The historical maximum 30-day average wet-bulb temperature and coincident dry-bulb temperature are widely used to represent meteorological conditions resulting in maximum evaporation and drift loss. Likewise, the historical maximum 1-day and 5-day average wet-bulb temperatures and the coincident dry-bulb temperatures are widely used to represent the worst combination of meteorological conditions resulting in minimal water cooling. This item is unresolved.]
2.3-2	2.3.1.3	Identify an additional UHS design basis site characteristic for use in evaluating the potential for water freezing in the UHS water storage facility. [The staff also believes that the applicant needs to identify an additional UHS design-basis site characteristic for use in evaluating the potential for water freezing in the UHS water storage facility (e.g., Clinton Lake), a phenomenon that would reduce the amount of water available for use by the UHS. The lowest 7-day average air temperature recorded in the site region may be a reasonably conservative site characteristic for evaluating the potential for water freezing in the UHS water storage facility. This item is unresolved.]

Open Item #	DSER Section	Subject
2.3-3	2.3.4.3	Use appropriately conservative meteorological data and appropriately conservative distances from postulated release points to calculate relative concentrations for accidental airborne releases of radioactive materials.

[The applicant generated its atmospheric diffusion estimates for postulated accidental airborne releases of radioactive effluents to the proposed EAB and LPZ using the staff-endorsed computer code PAVAN. The staff evaluated the applicability of the PAVAN model, concluding that there are no unique topographic features that preclude use of the PAVAN model for the Clinton ESP site. The staff also reviewed the applicant's input to the PAVAN computer code, including the assumptions used concerning plant configuration and release characteristics, and the appropriateness of the meteorological data input. The staff made an independent evaluation of the resulting atmospheric diffusion estimates by running the PAVAN computer model to review and verify the applicant's results, finding the following:

- The applicant used 32 months of recent onsite data (January 2000–August 2002) to generate the resulting EAB and LPZ χ/Q values. Potential bias in the results exists because the onsite database under represents autumn and the early winter months. The staff made an independent evaluation of the resulting atmospheric diffusion estimates by rerunning the PAVAN computer model using the complete 3-year hourly meteorological database (January 2000–December 2002) provided in the applicant's response to RAI 2.3.3-1 and concluded that the resulting EAB χ/Q value could increase as much as 10 percent.

- The applicant made conservative assumptions by ignoring building wake effects and treating all releases as ground-level releases.

- The applicant selected the center of the proposed area for the ESP site powerblock structures as the basis for determining the downwind distances to the EAB and LPZ (1025 meters and 4018 meters, respectively). Depending upon the ultimate site development (size, number, and type of reactor plant selected), the major release point(s) could be somewhat displaced from this center point. In response to RAI 2.3.4-2, the applicant noted that the minimum distance to the proposed EAB from any point on the envelope of the ESP facility footprint was 805 meters. The staff made an independent evaluation of the resulting atmospheric diffusion estimates by rerunning the PAVAN computer model and concluded that reducing the downwind distance to the EAB from 1025 meters to 805 meters could result in increasing the EAB χ/Q value by as much as 30 percent.

From this review, the staff concludes that the applicant needs to use appropriately conservative meteorological data and appropriately conservative distances from postulated release points to calculate relative concentrations for accidental airborne releases of radioactive materials.

Open Item #	DSER Section	Subject
2.4-1	2.4.1.3	Define the extent of the vertical disturbance and the bounding elevations of all structures, systems, and components (SSCs). Additionally, SSAR Figure 1.2-4 does not identify either the elevations or the areal locations of the safety-related piping corridors. Since the intake pumps for the ESP facility UHS makeup water are safety-related structures, the applicant must state whether it covers these through the site grade specified in the PPE or proposes separate criteria for these structures. [In RAI 2.4.1-1, the staff requested that the applicant provide additional information on survey coordinates (including elevations) for the bounding areas of all ESP facility safety-related structures, including intake tunnels and piping corridors. The staff requested that the applicant provide a layout of the intake tunnel and piping corridor from the lake to the ESP facility to determine the extent to which the COL applicant should address the layout as an interface item. The staff also asked for the locations of existing aquifers in the bounding areas, particularly perched aquifers. Although the applicant provided adequate information regarding the areal coordinates of the ESP site, it provided no information on the elevations required to define the bounding volume of the disturbed subsurface material. Therefore, the applicant should define the extent of the vertical disturbance and the bounding elevations of all SSCs. Additionally, SSAR Figure 1.2-4 does not identify either the elevations or the areal locations of the safety-related piping corridors. Since the intake pumps for the ESP facility UHS makeup water are safety-related structures, the applicant should state whether it covers these through the site grade specified in the PPE or proposes separate criteria for these structures.]

Open Item #	DSER Section	Subject
2.4-2	2.4.1.3	(a) Provide a schematic representation of the complete UHS system for a future facility on the ESP site, including the intake, piping, any potential storage basins, the UHS cooling loop, and the cooling tower(s), clearly showing all components and water flow including discharges through these components. (b) Demonstrate that PPE make-up flow rate, an average of 555 gpm and a maximum of 1400 gpm, at the maximum inlet temperature of 95°F, is sufficient to remove all waste heat from the UHS cooling tower(s) and that there are no limits on plant operation due to limited water supply or due to elevated water temperatures at the UHS intake for any facility constructed on the ESP site. [In RAI 2.4.1-2, the staff asked the applicant to identify any limits on plant operation resulting from either water supply or intake water temperature for the ESP facility. The staff requested that the applicant indicate the total service flow rate needed for the existing unit with once-through cooling systems and the integrated cooling flow demand for all units to determine if there is sufficient margin in the available water flow from the lake, accounting for any uncertainties associated with water and land use changes in the vicinity of the plant. It might become necessary to derate or shut down the reactors if the intake temperature exceeded a certain threshold. The staff also requested the applicant to estimate the frequency and duration of these operating limits. The staff determined that the applicant's description of the ESP facility UHS system is not sufficiently complete. The applicant should provide a schematic representation of the complete ESP facility UHS system, including the intake, piping, any potential storage basins, the UHS cooling loop, and the cooling tower(s), clearly showing all components and water flow including discharges through these components. The applicant stated that the ESP facility UHS system will have the capability to add makeup water to the inlet side of the cooling tower(s). It is not clear if the PPE makeup flow rate, an average of 1.24 cfs or 555 gpm and a maximum of 3.11 cfs or 1400 gpm, at the maximum inlet temperature of 95 °F, is sufficient to remove all waste heat from the UHS cooling tower(s). Based on this discussion, the applicant needs to provide a schematic representation of the complete UHS system for any future facility on the ESP site, including the intake, piping, any potential storage basins, the UHS cooling loop, and the cooling tower(s), clearly showing all components and water flow including discharges through these components. In addition, the applicant needs to demonstrate that PPE makeup flow rate, an average of 555 gpm and a maximum of 1400 gpm, at the maximum inlet temperature of 95 °F, is sufficient to remove all waste heat from the UHS cooling tower(s) and that there are no limits on plant operation due to limited water supply or due to elevated water temperatures at the UHS intake for any facility constructed on the ESP site.]
2.4-3	2.4.1.3	Provide an authoritative source that may include State or county planning officials that can either provide details of a development plan in Clinton Lake's watershed or verify the absence of such a plan. [In RAI 2.4.1-4, the staff requested that the applicant provide information regarding proposed land use changes in the watershed upstream of Clinton Lake. These changes might result in increased bed load in the tributaries upstream of Clinton Lake and increased sediment deposition in the submerged UHS pond. In response to RAI 2.4.1-4, the applicant stated that it does not have any information regarding proposed land use changes upstream of Clinton Lake. The staff determined that, for site suitability evaluation, the applicant needs to provide an authoritative source that may include State or county planning officials who can either provide details of a development plan in Clinton Lake's watershed or verify the absence of such a plan.]

Open Item #	DSER Section	Subject
2.4-4	2.4.1.3	Provide additional justification for why an increase in impervious area will not increase soil erosion. [The staff also disagreed with the applicant's statement that increased impervious area within Clinton Lake's watershed will result in a reduction of soil erosion and sediment discharge to tributaries. An increase in impervious area is likely to increase the volume of surface runoff, as well as decrease the time required to reach peak runoff in the watershed. Because of quicker and greater runoff, it is more likely that soil erosion will increase, not decrease. Should the resulting increased soil erosion decrease the submerged UHS volume in the lake, the staff would have to examine whether or not the UHS capacity is adequate. Therefore, the applicant needs to provide additional justification for why an increase in impervious area will not increase soil erosion.]
2.4-5	2.4.2.3	Provide a revised probable maximum precipitation (PMP) estimate using the current criteria of HMR 51. [The staff's independent estimation of 24-hour and 48-hour PMP values for Clinton Lake's watershed are 4.9 percent and 6.3 percent higher, respectively, than the applicant's PMP values derived using HMR 33 for the same durations, as reported in the SSAR. The staff concludes that the applicant did not show that PMP values estimated using HMR 33 are conservative when compared to PMP values estimated using HMR 51. Therefore, the applicant needs to provide a revised PMP estimate using the current criteria of HMR 51.]
2.4-6	2.4.2.3	Provide additional justification for why an increase in area with impervious surface will decrease the duration of low-flow events. [In response to RAI 2.4.2-2, the applicant stated that likely changes in upstream land use will not appreciably alter the flood risk at the site. Since the antecedent conditions used in PMF calculations will result in saturated soil conditions, any increases in impervious surface in the basin will not have a detectable impact on the PMF flood height. However, the staff concludes that the applicant's assertion that an increase in area with impervious surface will decrease the duration of low-flow events is not adequate. Increases in impervious surface also result in a reduction in recharge and the resulting ground water-derived baseflow. While the applicant's assertion of increased flow is correct for the long-term average flow, an increase in impervious surface area could result in a decrease in baseflow during dry periods. Therefore, the applicant needs to provide additional justification for why an increase in area with impervious surface will decrease the duration of low-flow events.]
2.4-7	2.4.2.3	Provide references to projections from State or local authorities responsible for development plans in the area of concern to substantiate any prediction of future development. [In response to RAI 2.4.2-2, the applicant stated that the portion of Salt Creek downstream of Clinton Lake is not a candidate for an increase in demand. The applicant stated that Salt Creek is not a likely candidate for any diversion development because it historically has experienced extended periods of low flow. However, the staff concludes that the applicant did not provide adequate basis for this statement. Since an increase in additional storage capacity could mitigate these low-flow periods, the staff finds the applicant's response incomplete. The applicant should provide references to projections from State or local or authorities responsible for development plans in the area of concern to substantiate any prediction of future development.]

Open Item #	DSER Section	Subject
2.4-8	2.4.2.3	Address the differences between the applicant's and the staff's estimates of local intense precipitation at the ESP site for a 1-hour duration and for a 5-minute duration. [The applicant estimated local intense precipitation at the ESP site for a 1-hour duration of 13.5 in. and for a 5-minute duration of 4.3 in. Table 2.4-2 of this SER shows the staff's independent estimation of local intense precipitation, which is 2 percent higher than the applicant's estimate for a 1-hour duration and 41 percent higher than its estimate for a 5-minute duration. Because of these differences, the site characteristic of local intense precipitation at the ESP site remains open. Therefore, the applicant needs to address the differences between the applicant's and the staff's estimates of local intense precipitation at the ESP site for a 1-hour duration and for a 5-minute duration.]
2.4-9	2.4.7.3	Provide more details regarding the method and air temperature data set used in estimating the thickness of an ice sheet that may form on the surface of Clinton Lake and demonstrate that the ice thickness estimate is adequate. [SSAR Section 2.4.7 does not provide sufficient details of the estimation of ice sheet thickness. In RAI 2.4.7-2, the staff requested that the applicant provide details of ice sheet thickness estimation including the input assumptions for the method employed. The staff performed its own independent estimation of the thickness of an ice sheet that may form on the surface of Clinton Lake. The staff used air temperature data from the Decatur meteorologic station as described above. The staff's estimate of ice sheet thickness is significantly greater than that of the applicant. Therefore, the applicant needs to provide more details regarding the method and air temperature data set used in estimating the thickness of an ice sheet that may form on the surface of Clinton Lake and demonstrate that the ice thickness estimate is adequate]
2.4-10	2.4.7.3	Provide a schematic diagram clearly showing the bounding dimensions and critical elevations of the ESP facility intake structure, including its conceptual plan and cross section, clearly indicating elevation of the basemat, elevation of the screen house opening, elevation of the normal plant heat sink makeup water intake pipe, elevation of the UHS makeup water intake pipe, and their relationship to the existing lake bed. [SSAR Section 2.4.7 does not provide sufficient detail for the staff to determine the relationship of ESP facility intake structure to the existing CPS intake structure and the depth of water over the intake during normal and low-water conditions. The staff needs this information to evaluate the performance limitations of the intakes during icy or low-water conditions. In RAI 2.4.7-3, the staff requested that the applicant describe the relationship, including its layout and depth, of the ESP facility intake relative to the current CPS intake. The applicant's response to RAI 2.4.7-3 did not resolve the staff's concern about the precise layout of the ESP facility intake structure. According to the CPS environmental report (ER) Figure 5.3-1, the ESP facility UHS intake would be located at an elevation of 668 ft MSL, which is below the lake bottom mentioned in the RAI response. The staff needs the bounding dimensions and critical elevations of the ESP facility intake structure, including its conceptual plan and cross section, clearly indicating elevation of the basemat, elevation of the screen house opening, elevation of the NHS makeup water intake pipe, elevation of the UHS makeup water intake pipe, and their relationship to the existing lake bed. The applicant needs to provide a schematic diagram clearly showing these items.]
2.4-11	2.4.7.3	Quantify the reduction in water storage capacity of the submerged UHS pond in the event of a complete loss of Clinton Dam coincident with the presence of surface ice. [The applicant should quantify the reduction in water storage capacity of the submerged UHS pond in the event of a complete loss of Clinton Dam coincident with the presence of surface ice.]

Open Item #	DSER Section	Subject
2.4-12	2.4.8.3	Address the difference between the applicant's and the staff's estimates of the 30-day makeup water needed for the ESP facility UHS system. [According to the PPE table (SSAR Table 1.4-1 of the SSAR, item 3.3.9), average makeup water for the UHS system with mechanical draft cooling tower(s) is 555 gpm. This makeup water flow is equivalent to a volume of 73.6 ac-ft over a 30-day period. The staff estimated that applying a 33-percent factor for blowdown, and an overall 20-percent margin, the 30-day makeup water needed for the ESP facility UHS system would be 73.6 x 1.33 x 1.2 = 117.4 ac-ft. The staff's estimate is considerably different from the applicant's estimate of 87 ac-ft. The applicant needs to justify its makeup water requirements for the proposed UHS.]
2.4-13	2.4.8.3	Provide a commitment to specific ESP facility normal and ultimate heat sink systems for the staff to conclude this review. [The staff concludes that the applicant needs to provide additional details on the ESP facility normal and ultimate heat sink systems and their cooling water requirements to allow determination of the maximum PPE heat rejection parameters. The applicant should provide a commitment to specific ESP facility normal and ultimate heat sink systems for the staff to conclude this review. The staff needs this information at the ESP stage to evaluate the adequacy of the UHS volume available for the ESP facility.]
2.4-14	2.4.8.3	Provide the volume requirements of the UHS for the CPS taking into consideration the latest power uprate. [The staff requested, in RAI 2.4.8-1, that the applicant explain how it calculated the cooling water needs for the CPS Unit 1 and the ESP facility. In response to RAI 2.4.8-1, the applicant described earlier modeling performed for the original analysis of the CPS UHS. The model used (LAKET) is apparently no longer available for independent evaluation by the staff. The documentation of earlier applications of the model is limited to the description provided in the CPS USAR. The applicant stated that the depth-averaged temperature model would be more conservative than a stratified model since the higher surface temperatures would result in increased heat loss. The staff agrees that a depth-average temperature model would indeed be conservative for temperature; however, the increased heat loss would come, in part, from increased forced evaporation. This implies that in terms of the volumetric analysis a depth-averaged model may not be conservative. The applicant stated that the UHS for CPS was designed for two units of which only one was constructed. The UHS volume requirements for the ESP facility would be far less than the requirements for the original planned two 992-MWe units. The applicant did not provide the volume requirements for the existing single uprated 1138.5-MWe CPS facility. The staff concludes that there is inadequate information to review the earlier modeling study on which the applicant relied. The applicant needs to provide the volume requirements of the UHS for the CPS taking into consideration the latest power uprate.]

Open Item #	DSER Section	Subject
2.4-15	2.4.8.3	Address the staff's conclusion that the applicant has not adequately established the rationale for using the 5-year drought duration as opposed to a shorter duration drought with a significantly lower inflow estimate. [The staff requested, in RAI 2.4.8-3, that the applicant describe its lake drawdown calculations. In response to RAI 2.4.8-3, the applicant described an analysis of changes in pool elevation resulting from droughts of 5-year duration with a recurrence period of 50 and 100 years. The applicant did not provide a basis for selecting the 5-year duration drought over a shorter drought duration which would provide much lower inflow, albeit for a shorter duration. The staff, based on an independent reading of the report from an earlier study conducted by the Illinois State Water Survey that the applicant used as the basis for the assumed low-flow conditions, concluded that a drought period of shorter duration with the same recurrence period could result in considerably more challenging conditions for lake level. For instance, based on data in the report for the Rowell gauge on Salt Creek, using a recurrence interval of 40 years, the inflows (expressed as area averaged runoff) for the 1-year drought and 5-year drought are approximately 1 in. and 23 in., respectively. The applicant relied on the CPS USAR as the basis for its values of natural evaporation and precipitation. It performed the analysis using a spreadsheet calculation and provided the spreadsheet as Attachment C with its responses to RAIs 5.2-1 and 5.2-2 generated from the staff's review of the applicant's ER. The staff reviewed the applicant's narrative response to RAI 2.4.8-3, the associated spreadsheet calculations, and the Illinois State Water Survey report on low flows of Illinois streams. The staff concluded that the applicant needs to provide a rationale for using the 5-year drought duration as opposed to a shorter duration drought with a significantly lower inflow estimate.]
2.4-16	2.4.8.3	Establish that the submerged UHS pond has adequate capacity to provide makeup water to the ESP facility UHS. [The staff's estimate of ice sheet formation in Clinton Lake indicated that the maximum ice thickness could reach 31.4 in. Under these icing conditions, if the main dam failed, or the water surface elevation in Clinton Lake fell to 675 ft MSL, it is likely that there would be some loss in the storage capacity of the submerged UHS pond because the ice sheet would settle down into the pond behind the submerged UHS dam. The staff conservatively estimated this loss in capacity by multiplying the surface area of the submerged UHS pond at elevation 675 ft MSL by the maximum thickness of the ice sheet. The staff estimated that the loss in submerged UHS pond capacity because of icing would be 413 ac-ft. Based on this estimate and the issue described in Open Item 2.4-12, the staff concludes that the applicant needs to establish that the submerged UHS pond has adequate capacity to provide makeup water to the ESP facility UHS.]
2.4-17	2.4.8.3	Establish the monitoring and dredging needs for the UHS pond for the combined operation of the CPS facility and a future facility consistent with the PPE parameter for maximum thermal discharge. [The applicant stated that it monitors the CPS UHS for sediment accumulation periodically and after a major flood passes through the submerged UHS pond. The applicant committed to perform necessary dredging to prevent the accumulation of sediment from exceeding the capacity provided for sediment storage in the design. The staff will evaluate the applicant's response to open items listed in this section to consider the adequacy of submerged UHS pond monitoring and dredging. The pond monitoring and dredging frequencies may need to be included as a permit condition. The applicant needs to establish the monitoring and dredging needs for the UHS pond for the combined operation of the CPS facility and a future facility consistent with the PPE parameter for maximum thermal discharge.]

Open Item #	DSER Section	Subject
2.4-18	2.4.12.3	Provide the potential impact of future construction for the ESP facility on the piezometric gradient for the ESP site. [To characterize the local subsurface environment sufficiently to understand the ground water flowpaths, the staff requested, in RAI 2.4.13-1, more information regarding the local subsurface environment. Based on the location of the plant relative to the piezometric boundary condition represented by Clinton Lake, as well as the applicant's commitment to avoid using ground water for normal or safety-related plant uses, the staff concludes that any direct impacts to the ground water system during plant operation would be small and very localized. However, the applicant did not bound the possible indirect impact of an overall drop in the lake pool elevation caused by the additional consumptive use of water associated with the ESP facility. Such a drop in elevation might alter the piezometric surface in the vicinity of the plant. It is also unclear to the staff that construction down to the PPE embedment depth could be performed without dewatering systems that could possibly reverse the piezometric gradient for the existing CPS unit. The applicant needs to provide the potential impact of future construction for the ESP facility on the piezometric gradient for the ESP site.]
2.4-19	2.4.12.3	Explain why the limited data used to estimate the three values required to calculate the average ground water velocity represent a basis for a velocity estimate. Provide values for the hydraulic gradient, saturated hydraulic conductivity, and effective porosity measured at the ESP site. [While the staff agrees that the equation is technically accurate, the applicant used very limited data to estimate the three values required to estimate the velocity. Based on one of two field permeability tests, the applicant selected the higher of the two values, 2.6×10^{-6} ft/d. For the porosity value, only one value (25 percent) was available for the Wisconsinan Till. The hydraulic gradient value (0.086) was based on the maximum head loss from the site to the floodplain of the North Fork of Salt Creek. The applicant should explain why such limited data represent a basis for a velocity estimate. In addition, the applicant should provide values for the hydraulic gradient, saturated hydraulic conductivity, and effective porosity measured at the ESP site.]
2.4-20	2.4.13.3	Specify the maximum elevation at which any liquid radioactive waste releases can occur in the proposed ESP facility. [In RAI 2.4.12-1, the staff requested additional information regarding the likelihood for liquid effluents to reach a surface water body. The applicant provided data on the historical water surface elevations in the two upper till strata (i.e., the Wisconsinan and Illinoian). The lowest value recorded was 710.8 ft MSL in the Illinoian. The applicant reported the site grade as 735 ft MSL and the maximum embedment depth from the PPE. However, the applicant should also specify the maximum elevation at which any liquid radioactive waste releases can occur in the proposed ESP facility.]
2.4-21	2.4.13.3	Provide a thorough description of the local hydrologic setting, both that which exists currently and that which is expected after the disruption associated with the ESP construction activities, to ensure that an inward gradient will be maintained. [The staff concludes that the applicant needs to provide a thorough description of the local hydrologic setting, both that which exists currently and that which is expected after the disruption associated with the ESP construction activities, to assure the staff that an inward gradient will be maintained.]

Open Item #	DSER Section	Subject
3.3-1	3.3.3.4	Use appropriate meteorological data and appropriate distances from postulated release points to the EAB and the LPZ to estimate the site specific χ/Q values used in the radiological consequence evaluations. [However, as stated in Section 3.3.3.3 above, the staff concludes that neither appropriate meteorological data nor appropriate distances from postulated release points to the EAB and the LPZ outer boundary have been used by the applicant for estimating the site specific χ/Q values used in the radiological consequence evaluations. Therefore, the radiological consequence evaluation for the proposed ESP site is unresolved.]
13.3-1	13.3.1.3	Provide a response to RAIs 13.3-20(a–j). [The applicant did not identify any other physical characteristics that could pose a significant impediment to the development of an emergency plan, such as new home or shopping center construction, an industrial park, a major increase in the number of new employers, or new roads or highways. However, the applicant has not yet responded to RAIs 13.3-20(a–j).]
13.3-2	13.3.2.3	Provide copies of documentation of contacts and arrangements with local government agencies having emergency planning responsibilities within the plume exposure EPZ (potentially DeWitt, Macon, McLean, and Piatt Counties; the municipalities of Clinton, Wapella, and Weldon; and the Village of DeWitt) that address the expanded responsibilities associated with an additional reactor(s) at the Clinton site. [The applicant's description of contacts and arrangements made with Federal, State, and local agencies does not clearly address the presence of an additional reactor(s) at the site and any resulting impact on government agency emergency planning responsibilities, including the agencies' acknowledgment of the proposed expanded responsibilities. Further, the additional information provided by the applicant does not adequately address RAI 13.3-4. Specifically, the applicant's documentation of contacts and arrangements with local government agencies having emergency planning responsibilities within the plume exposure EPZ (potentially DeWitt, Macon, McLean, and Piatt Counties; the municipalities of Clinton, Wapella, and Weldon; and the Village of DeWitt) does not address the expanded responsibilities associated with an additional reactor(s) at the Clinton site.]
13.3-3	13.3.3.9.3	Address the adequacy of the OSC, TSC, and EOF, and related equipment, in support of emergency response, and address with specificity such facility and equipment areas as location, size, structure, function, habitability, communications, staffing and training, radiological monitoring, instrumentation, data system equipment, power supplies, technical data and data systems, and record availability and management. [In Sections 8.1.2, 8.1.3, and 8.2 of the EGC ESP Emergency Plan, the applicant provides general descriptions of the OSC, TSC, and EOF and equipment. With regard to RAI 13.3-12, in order for the staff to determine whether major feature H is acceptable, the applicant needs to address the adequacy of the facilities and related equipment in support of emergency response, and to address with specificity, such facility and equipment areas as location, size, structure, function, habitability, communications, staffing and training, radiological monitoring, instrumentation, data system equipment, power supplies, technical data and data systems, and record availability and management.]

Open Item #	DSER Section	Subject
13.3-4	13.3.3.11.3	Address the estimated time required for confirmation of evacuation and provide a response to RAIs 13.3-20(k–v) [However, the staff needs additional information related to the 1993 ETE as requested in RAIs 13.3-20(k-v). Also, the applicant has not adequately addressed the estimated time required for confirmation of evacuation (RAI 13.3-16).]
13.3-5	13.3.3.11.3	Provide information related to protective measures in State and local emergency plans and address the review of the draft ETE submitted by State and local organizations involved in emergency response for the site. [In response to RAIs 13.3-13(e–h), the staff needs the following information related to protective measures in State and local emergency plans, including a description of the State and local governments' concepts for using the traffic capacities of evacuation routes for implementing protective measures, a description of the State and local organizations' concepts for using ETEs when considering the evacuation of various sectors and distances, and a description of the IDNS SOPs that relate to the basis for choosing a recommended protective action for the plume exposure pathway. The applicant has also not adequately addressed the review of the draft ETE submitted by State and local organizations involved in emergency response for the site in its response to RAI 13.3-6.]
13.3-6	13.3.3.12.3	Provide a description of State and local organizations' means for radiological decontamination of emergency personnel wounds, supplies, instruments, and equipment. [However, with regard to RAIs 13.3-13(i–k), the staff needs additional information about how the State will acquire and distribute dosimeters, both direct-reading and permanent record devices. Also, the staff needs additional information related to the State and local organization-specific action levels for determining the need for decontamination of emergency workers, equipment and vehicles, and the general public and their possessions. The staff also needs a description of State and local organizations' means for radiological decontamination of emergency personnel wounds, supplies, instruments, and equipment.]
17.1-1	17.7.3	Address 10 CFR Part 21 for ESP activities. [The applicant also stated that, under the provisions in 10 CFR 52.37, compliance with 10 CFR Part 21 is not required until an ESP is issued. Thus, the applicant stated that it would not impose 10 CFR Part 21 reporting requirements on contractors until the ESP is issued. The staff does not agree with Exelon's position that none of its ESP activities could affect safety-related SSCs. A June 22, 2004, letter to the Nuclear Energy Institute (NEI) (ADAMS Accession No. ML040430041) and meeting summaries for two public meetings with NEI on generic ESP issues (September 9, 2004, ADAMS Accession No. ML042360430; November 10, 2004, ADAMS Accession No. ML043290195) document the NRC position regarding the applicability of 10 CFR Part 21 to ESP applicants and holders. The staff considers Exelon's failure to address the applicability of 10 CFR Part 21 to its ESP activities as Open Item 17.1-1.]