Group D

FOIA/PA NO: 2015-0150

RECORDS BEING RELEASED IN THEIR ENTIRETY

# Information Needs
# Turkey Point Site Audit

**For each information need identify the related section of the ER or ESRP (PNNL-green; Contractor-blue)**

| Info needs # | Information Needs (include reviewers name, if desired) | Resolved (Info clarified or provided for docketing) | Resolve w/RAI (Info provided verbally, need RAI response for reference) | RAI (Info needed, if provided before RAIs sent, will be removed from list) |
|---|---|---|---|---|
| | **G - General Information Needs - ALL** | | | |
| G-1 | Please make available originals of all ER figures in .jpeg, .png or .tif format at a resolution of at least 300 dpi, and sized correctly. Please make available the electronic version of all ER figures in black and white. | | | |
| G-2 | Have available large wall map(s) at the site audit that show key features related to the proposed project, including:<br>• Proposed temporary and permanent facilities<br>• Proposed construction laydown areas<br>• Proposed intake pipeline<br>• Proposed water treatment plant<br>• Proposed injection wells<br>• Proposed transmission corridor(s)<br>• Property boundaries<br>• Points of interest (e.g., nearby residences, gas pipelines, nearby industries, including quarries/mines)<br>• Proposed haul roads<br>wetlands to be impacted by proposed activity (permanent & temporary) by acreage & type | | | |
| G-3 | Have available for review the ER references. | | | |

| | | | | |
|---|---|---|---|---|
| **G-4** | Provide access to all GIS and/or CAD data/databases used to support the Environmental Report analysis and results including existing and proposed conditions as appropriate. The data should generally include, but is not limited to:<br>a) All existing and proposed site infrastructure (roads, buildings, pipelines, transmission lines, utility right-of-ways/transmission corridors, power blocks, switchyards, pipeline corridors, cooling and retention ponds, dams, canals, monitoring/instrument stations, etc.)<br>b) Location data (official property boundary, official unit point location, exclusion area boundary, and other relevant boundaries on-site or regionally)<br>c) All surface and groundwater hydrologic data (watershed/subbasin boundaries, stream/river channels, springs, sinkholes, flood boundaries, reservoir boundary, site stormwater drainage, levees, hydrogeologic study boundaries, aquifers, potentiometric contours, well locations, surface water monitoring sites, etc.)<br>d) All terrestrial and aquatic ecological data (wetlands, ponds, terrestrial and aquatic sampling sites, wildlife/habitat areas, land use/land cover, threatened and endangered species locations,<br>e) Terrain and bathymetric data (LIDAR, contours, river cross-sections, bathymetric point samples, etc.)<br>f) Socioeconomic data (sector data at various radii, census blocks w/ attribute data including low income and minority data, state./county park recreational area boundaries, trails, water trails, wildlife management units, traffic count data, commuter routes, etc.)<br>g) Geology and soils data (site and vicinity data, faults, folds, seismic activity, etc.)<br>h) Alternative (candidate) site data (point locations, proposed site boundary, proposed infrastructure, etc.) | | | |
| **G-5** | Have available for review metadata to support all Geographic Information System (GIS) data previously delivered to the U.S. Nuclear Regulatory Commission (NRC). This information should at a minimum include purpose, access and use constraints, source, scale, capture date, contact information, processing steps, spatial reference, and data attribute definitions. | | | |
| **LU - Land Use - Sally Zeff** | | | | |

| | | | | |
|---|---|---|---|---|
| **LU-1** | Provide more detailed maps showing existing land uses and land use designations, especially residential uses, in urban areas (transmission line corridor areas) – ESRP 4.1.2 | | | |
| **LU-2** | Provide maps of land ownership for the vicinity of the site – ESRP 2.2.1 | | | |
| **LU-3** | Provide a knowledgeable expert to discuss and provide information on mineral resources: - ESRP 2.2.1<br>- Are there known or designated mineral resources in the vicinity of the site or of the borrow site?<br>- In addition to the limestone quarry in the vicinity of the site, are there other mining operations, including aggregate mining?<br>- What is the availability of aggregate in the region? | | | |
| **LU-4** | Provide a knowledgeable expert to discuss airports and consistency of the project with air traffic and airport land use plans: - ESRP 2.2.2 and 5.1<br>- What are existing air operations at Homestead Air Reserve Base?<br>- Where are other airports in the vicinity of the site and off-site facilities?<br>- What are the potential impacts of the project including off-site facilities on air traffic/airports? | | | |
| **LU-5** | Provide more information on the application filed by FPL for a CDMP amendment, as well as the application for rezoning to be filed, for the water management project. | | | |
| **LU-6** | Provide more information on the site restoration and management plans for the borrow site – ESRP 4.1.1 | | | |
| **LU-7** | Have a knowledgeable expert available who can provide more information on off-site cumulative impacts – ESRP 7.1 | | | |
| **LU-8** | Have available for review a copy of Miami-Dade Unusual Use Resolution 7-56-07, including the mitigative actions/plans noted in the ER page 5.1-3). | | | |
| **LU-9** | Provide a tour of the recreational areas surrounding the project site, of the agricultural areas and recreational areas surrounding the off-site facilities, and a tour of the transmission line corridors. | | | |
| **LU-10** | Have available for review detailed aerial mapping of site and off-site facilities with the proposed facilities (corridors, for transmission lines) mapped. | | | |
| **LU-11** | Have available for review maps showing potential transmission corridors and roadways and existing and planned land uses for the alternative sites presented in the ER | | | |
| **LU-12** | Have available a subject matter expert on land use who can discuss the Florida Coastal Zone Management requirements for the Martin site | | | |

| | | | | |
|---|---|---|---|---|
| **LU-13** | Have available a subject matter expert on land use considerations for alternative sites. | | | |
| **LU-14** | Provide a subject matter expert who can discuss the areas to be altered for major elements of the Turkey Point 6 and 7 installations. For example what is the area to be cleared to and graded for the switchyard. | | | |
| | | | | |
| **H –Hydrology - Rochelle Labiosa, Paul Thorne** | | | | |
| **H-1** | Have available for review a graphic to show under what part of Biscayne Bay the radial wells and associated piping will extend (ESRP 3.1). The figure should illustrate "Distance from the Laydown Area to the beginning of the planned well area is 2,010 feet"; length of radial well area = 1675 ft. (ERP Sections 1&2)– | | | |
| **H-2** | Have a knowledgeable expert available to discuss the height, width, and area of berms to be constructed using construction spoils piles (including but not limited to dredging, plant site and roadway improvements), including the 2 mil cubic yards removed to berms along the main canal and south side. ESRP 3.1 | | | |
| **H-3** | Provide subject matter expert who can discuss the relationship between infrastructure for the existing units at Turkey Point and infrastructure for the proposed units. For example will they share water treatment systems, sanitary sewer components surface water runoff ponds and administrative buildings? ESRP 3.1 | | | |
| **H-4** | ER P. 3.3-3 indicates that a startup pond would be used during the construction phase to collect system drains. Provide a subject matter expert who can describe the location and use of the startup pond. ESRP 3.1 | | | |
| **H-5** | If re-use water flow from Miami is stopped abruptly, how much water is stored on site and how long would the units be able to run without relying on water from Biscayne Bay? What is FPL's plan to respond to such a situation (i.e., how long would they wait before starting the radial well system)? ESRP 3.3.1; 5.2.1 | | | |
| **H-6** | Provide dimensions for the makeup water reservoir including total volume and surface area, and water quality monitoring planned for the reservoir. How will the reservoir be utilized when radial well and reuse water are used in combination or separately at the plant? Or, will the plant operation necessitate that the use of these water sources be segregated in time? ESRP 3.4.2 | | | |
| **H-7** | Provide a knowledgeable expert who can provide additional detail on the means to assure compliance with water-quality and water-use regulation related to construction and plant effluents, and construction-related spoils. Please provide analyses, including back of the envelope calculations and modeling, used to examine such impacts. ESRP 4.2.1; 4.2.2 | | | |

| | | | | |
|---|---|---|---|---|
| **H-8** | Have available the subject matter expert responsible for potential operation of the radial collector well system. Describe FPL's plans for the use of the radial well system. How often will the radial well system be operated, for how long, and what percentage of makeup water would come from the radial collector wells when they are operated? What is the basis for the response? How could changes in operations by Miami-Dade Water and Sewer Department or other changing conditions change this response (i.e., is the initial response the least they expect to operate the system?, the average?)? What problems, if any, would mixing Biscayne Bay water with recycled waste water in the cooling system cause? ESRP 5.2.1 | | | |
| **H-9** | Provide a knowledgeable expert who can discuss data on plant water consumption during periods of minimum reuse water availability and average use by month, projected to include the availability of reuse water for the life of the plant (projected to 2060). ESRP 5.2.1 | | | |
| **H-10** | Provide a knowledgeable expert to discuss information related to chemical monitoring in the new reclaimed water treatment facility and projected impacts of this facility on local groundwater and surface waters. Does the facility have an open connection to local canals or groundwater resources? ESRP 3.4.2; 6.3 | | | |
| **H-11** | Provide a knowledgeable expert who can discuss quantitative estimates of any on-site and off-site treatment and/or disposal of liquid waste associated with radioactive waste, chemical waste, or treated wastewater. ESRP 3.5; 3.6; 3.6.1; 3.6.2 | | | |
| **H-12** | 4.1.2.1: Transmission Corridors – Although FPL proposed Turkey Point Units 6&7 are not within the 100 yr floodplain, are there parts of the proposed transmission corridors that fall within the 100-yr floodplain? Please provide a knowledgeable expert to discuss how land conversion (from agricultural and/or wetland to transmission corridors) could affect the routing of stormwater and floodwaters along the proposed corridors. ESRP 4.1.2 | | | |

| | | | | |
|---|---|---|---|---|
| **H-13** | Have available a subject matter expert on dewatering the excavations for the proposed units. Describe and discuss the dewatering during construction. Examples of areas of interest include:<br>• how was the dewatering rate estimated?<br>• where will the dewatering product be discharged?<br>• is the analysis of dewatering weighted toward the "average" dewatering rate? - how would the maximum rates projected be handled?,<br>• The FSAR indicates that piping is not anticipated (Section 2.5.4.6.3) – is this based on the assumption that inflow to the excavation is the average condition of 1220 gpm – or have the higher rates mentioned in Section 2.5.4.6.2 up to 160,000 gpm been considered?<br>• How would areas where high localized discharge within the excavation be controlled if they occur. ESRP 4.2.1; 4.2.2 | | | |
| **H-14** | ER section 3.9.1.10 describes the construction of the radial collector wells. Provide a subject matter expert who can describe the methods that will be employed to install the radial collector well caisson and the laterals. ESRP 4.2.1 | | | |
| **H-15** | Provide a knowledgeable expert who can describe the nature of construction effluents (temperature, sediment load, etc.), their discharge rates, and their effect on surface water bodies. ESRP 4.2.1; 4.2.2 | | | |
| **H-16** | Make available for review the Goulder and Associates steady state water balance of canals, along with accompanying calculations for the dewatering balance with/without cutoff walls. ESRP 4.2.1; 4.2.2 | | | |
| **H-17** | Provide a knowledgeable expert who can discuss hydrogeological and coastal sediment transport impacts of emplacement of radial wells (potential to fracture overlying beds and affect sediment transport in nearshore zone) and before and after dredging for the barge turnaround. ESRP 4.2.1; 4.3.2 | | | |
| **H-18** | Provide a knowledgeable expert who can discuss users of the Biscayne Aquifer that might be affected by the operation of the additional Units 6&7 at Turkey Pt. Have available for review maps showing locations of such users collocated with the Turkey Point facility, including the reclaimed water treatment plant. ESRP 5.2.1; 5.2.2 | | | |

| | | | | |
|---|---|---|---|---|
| **H-19** | Have available the subject matter expert responsible for the analysis of surface water runoff. Discuss the impact of storms/runoff/surge on the reclaimed water treatment facility holding tanks and other site features. We are interested in discussing the HEC-HMS input/run files and output files for FPL Reclaimed Water Treatment Facility Storm Water Basin Design (mentioned in ERP sections 1&2 of certification application Attachment C). In parts of the ER, it appears that stormwater will be directed to the industrial wastewater facility, whereas in the SCA, the stormwater impacts on the reclaimed water system are analyzed. Discuss the storm water management system planned for the site. ESRP 5.2 | | | |
| **H-20** | Have available the subject matter expert responsible for the analysis of surface water runoff at the Reclaimed Water Treatment Facility to discuss the analysis with regard to impacts on local canals and the Biscayne Bay, including compliance with state and federal regulations. Make available for review and demonstration the HEC-HMS input/run files and output files for FPL Reclaimed Water Treatment Facility Storm Water Basin Design (mentioned in ERP sections 1&2 of certification application Attachment C). ESRP 5.2 | | | |
| **H-21** | Provide a knowledgeable expert on the impacts of storm surge and related flooding (current and projected to life of the plant (2060)), including the impacts of sea level rise ESRP 5.2 | | | |
| **H-22** | Provide a knowledgeable expert to discuss the increased capacity for stormwater runoff projected after the construction of reactors 6&7 (given that impermeable surface area will increase, not decrease, after the site is built), and impacts on water quality of surrounding surface and groundwater resources of the additional stormwater flowing to the Industrial Waste Water Facility ESRP 5.2 | | | |
| **H-23** | Provide a knowledgeable expert who can discuss the impacts of construction and operations of the reactors 6&7 on dissolved oxygen drawdown, salinity, and other water quality issues in Card Sound and Biscayne Bay. In particular, include information on changes to the Industrial Waste Water Facility and radial well operations that could potentially impact these surface water resources. ESRP 5.2 | | | |
| **H-24** | Provide a knowledgeable expert who can discuss the impacts of flooding and storm surge (past and predicted to the life of the plant) on water quality in Card Sound and Biscayne Bay, with particular consideration of swamping of the Industrial Waste Water Facility unlined and lined canals, reclaimed water facility, and, the stormwater basins and overland flow to surface waters. In particular, provide water quality monitoring data in the wake of the Hurricane Andrew and describe resultant impacts to water quality in these surface water resources. ESRP 5.2 | | | |

| | | | | |
|---|---|---|---|---|
| **H-25** | Provide a knowledgeable expert who can discuss the design specs and capacity of the stormwater runoff basins for the reclaimed water treatment facility and the impacts of the stormwater runoff basins on water quality and compliance with state and federal regulations. ESRP 5.2 | | | |
| **H-26** | Please describe potential impacts of 1 ft sea level rise over the life of the plant (2060) on operations of the plant, including the reclaimed treatment water facility and the Industrial Waste Water Facility. ESRP 5.2 | | | |
| **H-27** | Have available for review the Bechtel contracted document (for evaluation of boulder zone injection and radial well/reclaimed water quality of post-usage injectate) mentioned in ERP sections 1&2 of Site Certification Application ESRP 5.3.2.1 | | | |
| **H-28** | Provide a knowledgeable expert to discuss alternative discharge locations, considered for TP 6&7 (alternatives to the "Boulder Zone" discharge), including design and operational characteristics of each alternative. Discuss consequences and criteria for switching to alternative discharge configurations and what actions would follow a potential contaminant upwelling discovery at the Boulder Zone wellfield. How would monitoring of the Boulder Zone wells feed back to the plant operation (information timeframe, response timeframe, and triggers – i.e. above a certain water quality standard)? ESRP 5.3.2.1 | | | |
| **H-29** | Provide a knowledgeable expert who can discuss the potential impacts of "short-circuiting" of the Boulder Zone injection well on coastal, surface water and groundwater water quality. As several short-circuiting problems have been found in other local Boulder Zone wellfields, please discuss the potential role of hydrogeology in short-circuiting of Boulder Zone injection wells. ESRP 5.3.2.1 | | | |
| **H-30** | Have available a subject matter expert on current and historical pumping from the Upper Floridian aquifer to supply cooling water to Unit 5 and process water to units 1 and 2. Also provide any historical data on chemistry of water from this well and pressure (head) in the Upper Floridan aquifer. Discussions would be focused on how operation of this system provides insight on potential performance of the underground injection wells proposed for use. ESRP 5.3.2.1 | | | |

| | | | | |
|---|---|---|---|---|
| **H-31** | Have available the subject matter expert responsible for the analysis of the impacts to groundwater of the construction and operation of the proposed units. Be prepared to discuss for example, the justification for using a low horizontal:vertical conductivity ratio in the groundwater model. Describe the range of parameterizations tested using this model and the impacts of the parameterization ranges on the percentage of makeup water derived from the Biscayne Aquifer and the Biscayne Bay, respectively. Provide and make available for reference and demonstration the input/run files and numerical results for the updated (2009- submitted to SFWMD) MODFLOW (and other model) calculations of the impact of radial wells on the Biscayne aquifer and surrounding coastline (including water quality issues related to salinity). ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-32** | How were impacts to salinity in Biscayne Bay resulting from the operation of the radial collector wells (i.e. a moderation of salinities nearshore) ascertained? ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-33** | Have available the knowledgeable expert to describe challenges and uncertainties pertaining to emplacement of radial wells in limestone aquifers and provide examples of successful emplacement. ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-34** | "Since areas below the high tide shoreline are inundated from the bay about twice a day, there is an unlimited water supply in these areas. Therefore, the high tide shoreline was selected as the model shoreline, and areas below the high tide shoreline were modeled as a "constant head boundaries".(ER P 5.2-8) Please describe the variability in tidal height (25-yr historical high-high tide and low-low tidal differences) and overlay these contours as a GIS layer with precise radial well intake locations in a high resolution graphic at the location, with at least 0.5 ft bathymetric contour intervals. Please also provide the original GIS layer and Digital Elevation Map (DEM) data used to generate the figure. ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-35** | Provide a knowledgeable expert who can provide information on velocities in the vicinity of the radial wells' intake structure during periods of high high tide and low low tide in Biscayne Bay (Turkey Point). ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-36** | Have available the subject matter expert responsible for the analysis of the Aquifer Performance Test conducted by FPL in support of application certification to discuss the test design, conduct and interpretation. Make available for review the aquifer test calculation package. ESRP 5.3.1.1; 5.3.1.2 | | | |

| | | | | |
|---|---|---|---|---|
| **H-37** | Have the documentation regarding Aquifer Performance Test/monitoring well test design conducted in support of the radial collection well design and implementation (HDR Engineering. 2009- Turkey Point exploratory drilling and aquifer performance test plan, 20 pp.) available for review. ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-38** | Please provide a knowledgeable expert to discuss the completeness of the muck layer in the vicinity of the radial wells. In particular, what is the conductivity of the "muck layer" which is stated to overly the Biscayne Bay bottom and how homogenous is it in terms of conductivity and thickness in the region of influence cited for the radial wells (FSAR Appendix 2CC Figure 237)? If it is heterogeneous, with variations in thickness and presence/absence overlying the region influenced by the wells, how would the percentage of water drawn from Biscayne Aquifer change as a total percentage of water used at the plant? ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-39** | Please provide a knowledgeable expert to discuss the area of Bay bottom that will be affected by the pumping of the radial wells at maximum and average rates over the course of the year, and to discuss assumptions/models/calculations that were used to determine the area affected and velocity (FSAR 2CC - average approach velocity through the muck of 2.4E-05 cm/s was calculated. For the entire catchment area of the radial collector wells within Biscayne Bay the approach velocity is calculated as 2.3E-05 cm/s. When looking at the immediate vicinity of the wells, this value increases by an order of magnitude to 3.3E-04 cm/s, and becomes marginally larger for a single lateral at 3.5E-04 cm/s.) ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-40** | Please provide a subject matter expert to discuss the interactions between the various canals as river boundaries and the Biscayne aquifer in the MODFLOW setup and calculations. Plan to discuss FSAR Appendix 2CC: River Boundary — (1) Cooling Canals, (2) L-31E, (3) C-107, (4) Card Sound Canal, and (5) Florida City Canal; ESRP 5.3.1.1; 5.3.1.2 | | | |
| **H-41** | Provide a knowledgeable expert to discuss quantitative information on predicted atmospheric contaminant releases on the water quality of local surface and coastal waters. ESRP 5.3; 5.3.1.2 | | | |
| **H-42** | Provide a knowledgeable expert to discuss the monitoring equipment, data analysis procedures and documentation of data quality objectives for all stations monitoring groundwater and surface/coastal water properties. Provide all data associated with such monitoring locations, including monthly minima, maxima, and mean data for representative annual cycles during wet and dry years. ESRP 6.2 | | | |

| | | | | |
|---|---|---|---|---|
| **H-43** | Provide a knowledgeable expert to discuss information related to chemical monitoring in the industrial water treatment facility and impacts of this facility on local groundwater and surface waters. Provide all data associated with this monitoring, particularly minima, maxima, and mean data. ESRP 6.2 | | | |
| **H-44** | ER Table 10.1-2: Describe how monitoring of the radial wells/extraction of water from Biscayne Bay will feedback into using alternative sources of cooling water. Where will the wells be monitored, and for what criteria; what will trigger a switch to a different source of cooling water and in what timeframe? ESRP 6.2 | | | |
| **H-45** | Have available the subject matter expert responsible for surface water monitoring. ER Section 6.3.4.1 discussed surface water monitoring. Along with water height, are there any plans to monitor water quality (salinity, contaminants) ESRP 6.2 | | | |
| **H-46** | Have available the subject matter expert responsible operation of the Industrial Waste Water Facility who can discuss the interaction between the canals and groundwater; in particular the downwelling vector data for the unlined cooling canals ESRP Cumulative Impacts | | | |
| **H-47** | How do the new units relate to the existing cooling canal system (e.g., site stormwater runoff, site dewatering flow, other)? Assuming some linkage between the new site and the canals, how has FPL addressed cumulative impacts of the cooling canal system (e.g., potential saltwater intrusion into aquifers) in the ER? ESRP Cumulative Impacts | | | |
| **H-48** | How do the activities related to building and operating the new units relate to or interact with activities in the Comprehensive Everglades Restoration Project? Included in this question are activities both on the site (e.g., dewatering, land modifications) and off the site (e.g., mining, roads, transmission). ESRP Cumulative Impacts | | | |
| **H-49** | Have available a knowledgeable expert who can discuss the complete water balance for all units at the FPL site including (1) water withdrawn (surface water and groundwater), (2) water discharged (surface water and groundwater), and (3) consumptive use of water (surface water and groundwater). Include locations of withdrawal and discharge. ESRP Cumulative Impacts | | | |
| **H-50** | Have available the subject matter expert responsible for the analysis of water use and water impacts in the analysis of alternative sites. Topics of interest include for example surface water and groundwater users that could be affected by site construction and operation at all candidate alternative sites. Make available for review current users collocated with the potential plant site, intakes (where applicable), and discharges as GIS layers. ESRP 9.3 | | | |

| | | | | |
|---|---|---|---|---|
| **H-51** | For the Glades alternative site (ER 9.3.3.1), please provide a knowledgeable expert to discuss potential land use and population changes and subsequent pressures on the upper Floridan water source proposed as one source of cooling water at the site. For the Martin and Glades sites, what proportion of cooling water would be sourced from Lake Okeechobee? It is stated that 360 cfs are available from Lake Okeechobee – what is the origin of this flow rate and that for the C-43 canal? (i.e., what proportion of the total flow does this represent). It is stated the Okeechobee has an average total recharge of 48,300 cfs, so that plant operations at 100 cfs would be a negligible fraction. However, how does this usage compare to the net recharge (after other consumption/pressures) during a 7Q10 drought year? ESRP 9.3 | Alt | | |
| **H-52** | Have a knowledgeable expert available to discuss citing considerations for the Glade site for example since the Glades site is located within the 100 yr floodplain, at what elevation would the site be built? ESRP 9.3 | Alt | | |
| **H-53** | Provide a knowledgeable expert to discuss alternative intake systems and configurations of the radial wells for Turkey Point reactors 6&7 (as shown in ER Figure 3.1-3/3.4-12) and describe all impacts to local surface water and groundwater resources. ESRP 9.4 | Alt | | |
| **H-54** | Please provide a knowledgeable expert to contrast the hydrological and ecological impacts of building the lateral wells versus dredging a channel for an offshore intake. Please describe how much area the dredging would cover and how far offshore the intake would be placed for both the Biscayne Bay and Card Sound intake options. This question is related to ER 9.4.2.3.3 "Due to the shallowness of the bay, a shoreline intake would require dredging a channel in the seafloor to ensure sufficient capacity and is therefore eliminated from further consideration." ESRP 9.4 | Alt | | |
| **H-55** | ER 9.4.2.3.3 What percentage of cooling water could Card Sound Canal Provide? Because Card Sound Canal is in connection with Card Sound, provide a knowledgeable expert to discuss the water quality issues that would result from usage of this makeup water source in Card Sound proper. Also discuss the reasons for rejecting the turning basin, when it will be dredged for expansion – why is it rejected outright when dredging is already required? ESRP 9.4 | Alt | | |

| | | | | |
|---|---|---|---|---|
| **H-56** | 9.4.2.3.4 "Miami- Dade County Resolution Z-56-07, condition 4 requires that FPL shall not apply for any water withdrawals from the Biscayne Aquifer as a source of cooling water for the proposed facilities and is therefore eliminated from further consideration." Please provide a knowledgeable expert to discuss the regulations regarding the Biscayne Aquifer usage – if under the best circumstances (the MODFLOW model currently set up that shows 97% extraction from Biscayne Bay, 3% from Biscayne Aquifer), why are the radial wells as a source of makeup water still under consideration if a permit cannot be requisitioned? Or, is there an exception for withdrawals of less than a certain percentage? ESRP 9.4 | | | |
| **H-57** | Have a knowledgeable expert available to discuss the elimination of the Floridan aquifer as consideration as a backup water source (with reclaimed water dominating). In particular plan to address the statement in section 9.4.2.3.4 "Condition 5 requires that any withdrawals from the Floridan aquifer will not interfere with current legal users of that source and meet the substantive requirements of Section 24-43.2 of the Code. An aquifer performance test would be required to demonstrate that no legal users of the aquifer would be affected and another water supply source would likely be required to supplement that supplied from the Floridan aquifer and therefore this water source is eliminated from further consideration". What percentage of operational supply could be gleaned from the Floridan Aquifer? ESRP 9.4 | Alt | | |
| **H-58** | Provide a knowledgeable expert who can discuss alternatives for water treatment, including the circulating water system and service water system, and who can discuss in detail the chemicals, additives and mechanical treatment, and operating cycles for these systems. In particular, include impact of any additional water treatment required for TP 6&7 Miami Dade reuse water, and saline coastal water (Biscayne aquifer/Bay) in the various proportions considered for inputs to the plant (currently 0-100% for reuse water and Biscayne aquifer/Bay source, respectively). ESRP 9.4 | Alt | | |
| **H-59** | Have available for review the following documents that relate to water supplies for the proposed units (References for Appendix 10 of the SCA):<br>▪ Analysis of Baseline Water Source (HDR, December 20, 2007).<br>▪ Task 1 Initial Water Source Alternative Screening (HDR, March 13, 2008)<br>▪ Task 2 and 3 Water Source Alternative Characterization and Scope (HDR, March 2008).<br>▪ Conceptual Engineering of Cooling Water Supply and Disposal For Turkey Point Units 6 & 7 (HDR, June 30, 2008).<br>▪ Cooling Water Supply and Disposal Conceptual Design Report (HDR, March 2009) ESRP 9.4.2 | Alt | | |

| | | | | |
|---|---|---|---|---|
| **H-60** | Please provide a knowledgeable expert to discuss projected population land use change in the watershed surrounding the plant and transmission lines, and further impacts such land use change will have on water resources in the region, particularly on the Biscayne Aquifer and Biscayne Bay. | Socio | | |
| | | | | |
| **TE - Terrestrial Ecology - Mike Sackschewsky/Janelle Downs/Lara Aston** | | | | |
| **TE-1** | Have a subject matter expert available to discuss important species and habitats in vicinity of the site and T-Lines. Needs to be able to address survey locations and methodologies, as well as the distribution of important resources in relation to the physical disturbances. (ESRP 2.4.1, 4.3.1, 5.6.1) | | | |
| **TE-2** | Have a subject matter expert available to discuss wetland types, distribution, impacts, delineations, and mitigation. This person or another expert should be familiar with the wetland vegetation and especially the State and/or federal threatened or endangered wetland species near the site or transmission lines. (ESRP 2.4.1, 4.3.1) | | | |
| **TE-3** | Have available for review copies of wetland delineation / survey reports, and copies of Section 404 permit applications, if available, and copies of correspondence with Corps related to wetlands and permitting. (ESRP 2.4.1, 4.3.1) | | | |
| **TE-4** | Have available for review copies of any FPL or subcontractor ecological / T&E species survey reports. (ESRP 2.4.1) | | | |
| **TE-5** | Have available for review copies of written correspondence with FFWCC and FWS regarding T&E species. (ESRP 2.4.1) | | | |
| **TE-6** | Have a subject matter expert available to discuss T&E animal species, including crocodile, wood stork, Florida panther, indigo snake, snail kite, and terrestrial invertebrates, as well as address state-listed animal species at the site and along the transmission corridors. (ESRP 2.4.1) | | | |
| **TE-7** | Have a subject matter expert available to discuss FPL general and Turkey Point specific procedures for the protection of state and federal listed species, including planned protection and mitigation measures that will be implemented during construction and operation. (ESRP 4.3.1) | | | |
| **TE-8** | Have a subject matter expert available who is familiar with other terrestrial important habitats, especially remnant pine rockland communities near the proposed transmission line corridors and the rare species that occur within those communities. (ESRP 2.4.1, 4.3.1, 5.6.1) | | | |

| | | | | |
|---|---|---|---|---|
| **TE-9** | Have a subject matter expert available to discuss the current / pre-existing stresses occurring to the surrounding communities – especially changes in surface hydrology and effects on terrestrial vegetation. This needs to be in the context of ongoing monitoring and restoration efforts in the area. (ESRP 2.4.1) | | | |
| **TE-10** | Have a subject matter expert available to discuss cooling tower drift - including potential contaminants in the make-up water reservoir, and their effects on surrounding flora and fauna if they are in the cooling tower drift, and the potential effects of high salt concentration drift on juvenile crocodile fresh-water refugia on the cooling canal berms (ESRP 5.3.3.2) | | | |
| **TE-11** | Have available for review copies of FPL transmission corridor maintenance procedures, and/or SME to discuss maintenance procedures, invasive species control procedures, and means to protect important species and habitats while performing maintenance actions. (ESRP 5.6.1) | | | |
| **TE-12** | Have a subject matter expert available to discuss pre-application, construction, and operational terrestrial and/or wetland monitoring, and copies of any monitoring reports prepared to date. (ESRP 6.5.1) | | | |
| **TE-13** | List of other major actions in the vicinity that need to be addressed in cumulative analysis, including construction / development actions with potentially detrimental impacts as well as ongoing restoration / resource enhancement efforts. (ESRP 4.7?) | cumulative | | |
| **TE-14** | Have a subject matter expert available to discuss the acreage of impacts to important terrestrial habitats, including wetlands on each alternative site, associated offsite corridors, and proposed transmission line corridors (ER Rev. 0, Chapter 9.3.3 ESRP 9.3). Have available for review any supporting documentation (such as figures with plant layout and hypothetical transmission line routes) on this topic. | Alternative Sites | | |
| **TE-15** | Have a subject matter expert available to discuss construction and operational impacts to important species at each of the alternative sites, associated off-site areas, and hypothetical transmission line corridors (ER Rev. 0, Chapter 9.3.3 ESRP 9.3). Have available for review supporting documentation related to this topic. | Alternative Sites | | |
| **TE-16** | Have a subject matter expert available to discuss other past, present, or future projects occurring within a 20 mile radius of each alternative site (and associated transmission line corridors) that could impact terrestrial resources in a similar way to the building and operation of two new nuclear units (in order to address cumulative impacts). Have available for review supporting documentation related to this topic. | Alternative sites | | |
| | | | | |
| **AQ - Aquatic Ecology - Jeff Ward/Ann Miracle** | | | | |

| | | | | |
|---|---|---|---|---|
| **AQ-1** | Have a subject matter expert available to describe aquatic resource monitoring that has been conducted for the following areas:<br><br>1. Proposed new transmission line corridors<br>2. Onsite areas including new reactor site, industrial wastewater facility, and other onsite waterbodies, including ponds and canals<br>3. Biscayne Bay and Card Sound<br>4. Barge channel and docking area<br>5. Turkey Point peninsula adjacent to area proposed for radial collector wells<br><br>(ESRP 2.4.2) | | | |
| **AQ-2** | Provide subject matter expert to describe the Federal or State-listed threatened, endangered, or species of special concern that might occur on or adjacent to the Turkey Point Site or in proposed transmission corridors. (ESRP 2.4.2) | | | |
| **AQ-3** | Provide subject matter expert to describe construction-related activities that could affect aquatic resources, including<br><br>1. Onsite construction and filling of canals, streams, and ponds<br>2. Potential impact of disposal of "muck" generated during construction of the site on the industrial wastewater facility<br>3. Other construction activities adjacent to the industrial wastewater facility<br>4. Construction of reclaimed water pipelines and other pipeline structures<br>5. Construction of roads that would affect aquatic resources<br>6. Transmission line construction- especially west options<br>7. Construction of radial collector wells (nearshore habitat loss, noise/vibration effects on sensitive species)<br>8. Dredging of barge slip and barge channel<br>9. Mitigation plan for increased barge traffic with respect to manatees<br>10. Potential hydrological effects resulting from mining or fill for the site on aquatic resources<br><br>(ESRP 4.3.2) | | | |

| | | | | |
|---|---|---|---|---|
| **AQ-4** | Provide subject matter expert to describe the operation of the radial collector well system with respect to<br><br>1. Expected flow rate<br>2. Expected frequency of operation by week, month, season, or year (versus use of reclaimed water)<br>3. Effect of operation on nearshore benthic resources (benthic organisms, seagrasses, demersal fish)<br><br>(ESRP 5.3.1.2) | | | |
| **AQ-5** | Provide a subject matter expert to describe disposal plans for the 400+ tons of sludge/water per day generated from the proposed water treatment plant (ESRP 5.3.1.2) | | | |
| **SE - Socioeconomics & Environmental Justice - Alex Uriarte** | | | | |
| **SE-1.** | Provide a knowledgeable expert to discuss current and projected population as presented in Table 2.5-1 including: a) allocation of census blocks to sectors when blocks intersect more than one sector; b) calculation and application of county exponential growth rates; c) allocation of transient population to sectors. Be prepared to provide a breakdown of the population data within the 10-mi radius in resident and transient population and a breakdown of the transient population data showing build up and years of collected data. (ER 2.5.1.1; ESRP 2.5.1) | | | |
| **SE-2.** | Provide a knowledgeable expert to discuss Table 2.5-52, including calculation of the category "aggregate of minority races." Be prepared to break down block group counts by those with more than 50% of a minority or low-income population and those with presence 20 percentage points above state levels. (ER 2.5.4.2; ESRP 2.5.4) | | | |
| **SE-3** | Provide documentation showing all contacts with local government officials, staff of social welfare agencies and Indian Tribes done to identify unusual resource dependencies or practices or health conditions that could result in potentially disproportionate impacts to minority and low-income populations. Please provide names and contact information for those contacted. (ER 2.5.4.4; ESRP 2.5.4) | | | |
| **SE-4** | Provide a knowledgeable expert to discuss odor impacts from construction of the proposed units (ESRP 4.4.1) and thermal emission and odor impacts of operations of the proposed Units (ESRP 5.8.1). | | | |
| **SE-5** | To the extent possible, provide a breakdown of the construction in-migrant workforce by BLS construction labor category (ER 4.4.2.2.1.1; ESRP 4.4.2) | | | |

| | | | | |
|---|---|---|---|---|
| **SE-6** | Provide a knowledgeable expert to discuss recreational use of Biscayne National Park and Everglades National Park and any particular sensitivities to physical impacts (aesthetics, noise...) of construction and operations. (ESRP 4.4.1 and 5.8.1) | | | |
| **SE-7** | Provide a knowledgeable expert to discuss any changes to the construction schedule and start-up dates for commercial operations of Units 6 & 7, and any need for adjustments to the numbers and/or periods of peak employment and for adjustments to the impact analysis provided in the ER (based on Andy's April 08 email to Bob Bryce. We may need to provide FPL with some explanation?; ESRP 4.4.2 and 5.8.2) | | | |
| **SE-8** | Provide a summary document with the RIMS II multipliers obtained from BEA for the industries and geographical area used, as well as document used to request such data from BEA. (ER 4.4.2.2.1 and 5.8.2.2.1; ESRP 4.4.2 and 5.8.2) | | | |
| **SE-9** | Provide a knowledgeable expert to discuss the use of RIMS II multipliers to estimate impacts of construction and operations on earnings (ER 4.4.2.2.1 and 5.8.2.2.1; ESRP 4.4.2 and 5.8.2) | | | |
| **SE-10** | Provide a knowledgeable expert to discuss the current distribution of tax revenues by jurisdiction and impacts from construction (acceptance review table; ESRP 2.5.2 and 4.4.2) | | | |
| **SE-11** | Provide a knowledgeable expert to discuss Level of Service (LOS) designation of roads in the vicinity of the plant, before and during construction and operations (ER 4.4.2.2.4.4 and 5.8.2.2.4; ESRP 4.4.2 and 5.8.2) | | | |
| **SE-12** | Provide a knowledgeable expert to walk us through the calculation of mgd of plant operational consumption of potable water presented in ER 5.8.2.2.7.1 and of mgd of wastewater treatment presented in ER 5.8.2.2.7.2 (ESRP 5.8.2) | | | |
| **SE-13** | Provide a knowledgeable expert to discuss MDWSD provision of reclaimed water for operations of the proposed Units 6&7 with respect to provision capacity, competing demands and impact on MDWSD's current reclaimed water program (ESRP 5.8.2) | | | |
| **SE-14** | Provide a knowledgeable expert to discuss school enrollment projections and analysis of impact of in-migration on local schools (ESRP 4.4.2 and 5.8.2) | | | |
| | | | | |
| **CR - Historic and Cultural Resources - Sally Zeff/Mike Bever** | | | | |
| **CR-1** | Provide a tour of both onsite and offsite project areas, and a description of preconstruction, construction, and operational activities that will occur there. (ESRP 2.2.1, 2.2.2, 3.1, and 3.7) | | | |

| | | | | |
|---|---|---|---|---|
| **CR-2** | Provide a knowledgeable expert to describe how the area of potential effect (APE) was defined (including both a direct and an indirect APE), and provide evidence of State Historic Preservation Office (SHPO) concurrence in APE definition. (ESRP 2.5.3) | | | |
| **CR-3** | Provide a knowledgeable expert to describe the process used to identify interested Native American Tribes and other parties regarding cultural resources, including the process used to identify any Traditional Cultural Properties (TCPs). (ESRP 2.5.3) | | | |
| **CR-4** | Provide copies of all consultation correspondence with the SHPO, any involved state and federal agencies, Tribes, and any other parties regarding the proposed project in reference to cultural and historic resources. (ESRP 4.1.3 and 5.1.3) | | | |
| **CR-5** | Provide a knowledgeable expert to describe ongoing and future consultation efforts with the SHPO, Tribes, and interested parties. (ESRP 2.5.3) | | | |
| **CR-6** | Provide a tour of cultural resources and culturally sensitive areas identified within the APE, as well as project areas that have been surveyed to date, and areas that still need to be surveyed. (ESRP 2.5.3, 4.1.3, and 5.1.3) | | | |
| **CR-7** | Provide a knowledgeable expert to describe the cultural resources scope of work to date, including what remains to be completed, and a schedule for completion. (ESRP 2.5.3) | | | |
| **CR-8** | Provide copies of all survey reports and technical studies for both onsite and offsite areas referenced in the ER, Sections 2.5.3.3 and 4.1.3, including evidence of SHPO concurrence with report findings. (ESRP 2.5.3) As summarized in the ER, these reports should include:<br>• Cultural history of the project area<br>• Environmental setting<br>• Land use history<br>• Consultation efforts with SHPO and the Tribes<br>• Records search methodology and results<br>• Field survey methodology and results<br>• Archaeological testing methodology and results<br>• Resource sensitivity in the APE<br>• Site records containing details and locations of cultural and historic resources in the APE (including both National Register eligible and other resources).<br>• Potential project-related impacts to historic properties<br>• Mitigation measures. | | | |

| | | | | |
|---|---|---|---|---|
| **CR-9** | Provide documentation of eligibility for significant cultural and historic resources in the APE (according to National Register or appropriate state and local criteria). (ESRP 2.5.3, 4.1.3, and 5.1.3) | | | |
| **CR-10** | Provide a knowledgeable expert to describe the process for evaluating any noise and visual impacts to cultural resources. (ESRP 4.1.3 and 5.1.3) | | | |
| **CR-11** | Provide documentation of a mitigation/avoidance plan for cultural and historic resources identified in the APE (if they are likely to be impacted by preconstruction, construction, or operation of the facility), including NAGRPA provisions for potential human remains on federal land, if appropriate. (ESRP 4.1.3, 5.1.3, 5.10, 9.3, 9.4, 10.1, 10.2) | | | |
| **CR-12** | Provide a knowledgeable expert to discuss cumulative impacts to cultural resources, including activities of other agencies and other projects in the region that may contribute to cumulative impacts. | | | |
| **CR-13** | Provide a knowledgeable expert to discuss project alternatives, and efforts involved in identifying cultural and historic properties in these alternative areas, and in weighing impacts to them. (ESRP 9.3 and 9.4) | | | |
| **CR-14** | Provide the documents or studies used to develop a reconnaissance level of detail for project alternatives. (ESRP 9.3 and 9.4) | | | |
| | | | | |
| **Met - Meteorology and Air Quality - Ed Carr** | | | | |
| **Met-1** | Provide a knowledgeable expert to discuss meteorology and air quality described in the ER Sections 2.7, and 3.6.3.1. This will include some discussion and analysis of prevailing wind direction between daytime and nighttime periods, a legible Table 2.7-1 from the ER "Climatological Data Summary Report for Miami International Airport, FL." (ESRP 5.3.2.1 and 6.4) | | | |
| **Met-2** | Provide a knowledgeable expert to discuss meteorology monitoring as described in the ER Section 6.4. This should include a tour of the current meteorological equipment, and a meeting with staff that operate and maintain the meteorological equipment (Section 6.4). This should also include an opportunity to review the instrument maintenance records. This will address the question if the 10 and 60-m met tower data are representative of Units 6&7 given the proximity to the Atlantic and the potential difference in the TIBL structure. (ESRP 6.4) | | | |

| | | | | |
|---|---|---|---|---|
| **Met-3** | Provide a knowledgeable expert to discuss the cooling system to aid our evaluation of cloud formation from the cooling towers (Section 5.3.3). This will address such questions as why 5-yr Miami International Airport data was used rather than on-site wind speed and wind direction data. (ESRP 3.4.1, 3.4.2, 5.8.1 and 6.4) | | | |
| **Met-4** | Please provide access to electronic copies of input and output files for AERMOD and CALPUFF models used for cooling tower plume visibility and salt drift deposition calculations. This will answer questions on the droplet size distribution used in the salt deposition modeling for the cooling tower plumes as makeup water may come from the use of reclaimed water and/or saltwater from radial collector wells installed below Biscayne Bay. (ESRP 3.6.3, 5.8.1). | | | |
| **Met 5** | Provide access to electronic copies of input and output files for PAVAN, XOQDOQ, models used for the short-term and long-term dispersion estimates (ER Section 2.7) (ESRP 2.7, 3.6.3, 5.4.1, and 5.4.2). | | | |
| **Met-6** | Please be prepared to discuss the construction emissions (criteria pollutants) associated with non-road and on-road construction equipment activity and a duration over which these activities would occur in constructing units 6 & 7. (ESRP 4.4.1) | | | |
| **Met 7** | Please be prepared to discuss the GHG emissions produced over the lifetime of the facility. This would include the GHG emission associated with construction, operation and decommissioning. Activities should include construction equipment, workforce transportation, operational emissions including those needed to support the uranium fuel cycle. (Executive Office of the President, Memorandum From Nancy H. Sutley, Chair of Council of Environment Quality, February 18, 2010, "Draft NEPA Guidance On Consideration Of The Effects Of Climate Change And Greenhouse Gas Emissions") | | | |
| | | | | |
| **NR - Non-Rad Health – Jim Laurenson** | | | | |
| **NR-1** | Provide a knowledgeable expert to discuss the differences between the nearest plant property boundary noted in ER Sec. 2.7.7 for noise, which is 1.6 miles northwest of the existing units, and the site nearest boundary noted in ER Table 5.4-2 for gaseous effluent exposure, which is 0.35 miles south southeast. ESRP 5.3.4 | | | |

| | | | | |
|---|---|---|---|---|
| **NR-2** | Provide a knowledgeable expert to discuss FSAR Sec. 2.1.3.4, which states that no facilities or institutions requiring special consideration for emergency planning purposes, such as schools, nursing homes, hospitals, prisons, or major employers (other than Turkey Point), are known to exist in the area falling within 5 miles of the center of Units 3 & 4. ER Sec. 2.7.7 identifies a school approximately 2 miles west northwest. ESRP 5.3.4 | | | |
| **NR-3** | Provide a knowledgeable expert to discuss ER Table 5.4-2, which notes that the nearest vegetable garden and food animal are 4.8 miles northwest and 2.7 miles north, respectively. Aerial photography (Google Earth), however, indicates that a residence with what appears to be a garden (which has the potential to be a vegetable garden) lies approximately 3.6 miles northwest. And ER Table 2.7-15 indicates that the closest food animal is 4.0 miles northwest. ESRP 5.3.4 | | | |
| **NR-4** | Provide a knowledgeable expert to discuss ER Sec. 5.3.1 and the criteria that would be used to determine when reclaimed water would not be of sufficient quality for use in the cooling system. ESRP 5.3.4 | | | |
| **NR-5** | Provide a knowledgeable expert to discuss ER Sec. 5.3.4 and the effects to workers and members of the public from chemicals and etiologic agents in reclaimed water ESRP 5.3.4 | | | |
| **NR-6** | Provide a knowledgeable expert to discuss the effects on potable water supplies from chemicals of concern in reclaimed water used for makeup water and injected underground, especially given the unique hydrogeology of the area and the expected interactions between surface waters (including Biscayne Bay and the cooling canals), groundwaters (including the Floridan and Biscayne aquifers), and radial collector wells, and given the high levels of chemicals (e.g., based on ER Table 3.6-2, antimony, arsenic, cadmium, and other constituents of the injected waters are expected to exceed the EPA maximum contaminant levels for drinking water) and the qualitative statements in ER 5.5.1.2 regarding the amount of dilution expected for wastewater injected in the Boulder Zone. ESRP 5.3.4 | | | |
| **NR-7** | Similarly, provide a knowledgeable expert to discuss the effects on potable water supplies from etiological agents cooling water injected underground, especially given the unique hydrogeology of the area and the expected interactions between surface waters (including Biscayne Bay and the cooling canals), groundwaters (including the Floridan and Biscayne aquifers), and radial collector wells. ESRP 5.3.4 | | | |
| **NR-8** | Provide a knowledgeable expert to discuss the effects to workers and members of the public from inhalation of chemicals of concern and etiological agents in air emissions from reclaimed water used for makeup water. ESRP 5.3.4 | | | |

| | | | | |
|---|---|---|---|---|
| **NR-9** | Provide a knowledgeable expert to discuss other industrial activities that have occurred or will occur in the project area that may contribute to a cumulative impact with chemical or etiological agents? ESRP 5.3.4 | | | |
| **NR-10** | Provide a knowledgeable expert to discuss the proximity and types of recreational activities occurring near the cooling water injection location. ESRP 5.3.4 | | | |
| **NR-11** | Provide a knowledgeable expert to discuss cumulative health impacts of construction and operation. ESRP 5.3.4 | | | |
| | | | | |
| **NRW - Non Rad Waste - Ralph Grismala** | | | | |
| **NRW-1** | Provide a knowledgeable expert to discuss the calculation of the quantities of vegetative debris from land clearing operations, including clearing of the proposed transmission line and pipeline rights-of-way, and to compare these quantities to the capacity of the proposed spoils area | | | |
| **NRW-2** | Spoils areas with a total spoils capacity of approximately 2 million cubic yards are proposed to allow dewatering of materials from clearing, grubbing, and excavation. Provide a knowledgeable expert to discuss management of these spoils, if any, after dewatering. | | | |
| **NRW-3** | Provide a knowledgeable expert to discuss the disposition of the expected 1.8 million cubic yards of "muck" to be excavated from the Unit 6 & 7 plant area, plus any additional "muck" from the makeup water reservoir, radial well caissons, or other excavations. | | | |
| **NRW-4** | Provide a knowledgeable expert to discuss the construction methods for the permanent reinforced concrete diaphragm "cutoff" wall and, if slurry wall construction is used, the volume of slurry required for construction and the disposition of the used slurry. | | | |
| **NRW-5** | Provide a knowledgeable expert to discuss the quantities and types of construction debris proposed for disposition by onsite combustion; and the air quality impacts of such combustion; proposed protections to surface and groundwater near the burn areas; and the management of any residual solids. | | | |
| **NRW-6** | Provide a knowledgeable expert to discuss the facilities and processes for managing onsite disposal of Class III industrial solid waste | | | |
| **NRW-7** | Provide information on the location and capacity of any offsite permitted industrial waste landfills which will be used for disposition of any construction or operational nonradioactive industrial waste | | | |

| | | | | |
|---|---|---|---|---|
| **NRW-8** | Provide information on the location and capacity of permitted municipal solid waste (MSW) landfills which will be used for disposition of any construction or operational nonradioactive MSW | | | |
| **NRW-9** | Provide information on the location and capacity of permitted hazardous waste landfills which will be used for disposition of any construction or operational nonradioactive hazardous waste | | | |
| **NRW-10** | Provide a knowledgeable expert to discuss the quantity and ultimate disposition of waste oil from the waste oil storage tank | | | |
| **NRW-11** | Provide a knowledgeable expert to provide a breakdown of the expected 2442 tons of solid waste per year with respect to the waste types and quantities that would be recycled, sent to an MSW landfill, sent to an industrial waste landfill, or managed in some other manner | | | |
| **NRW-12** | Provide a knowledgeable expert to provide a breakdown of the expected 3600 pounds of hazardous waste per year with respect to the waste types and quantities that would be recycled, sent to a hazardous waste disposal facility, or managed in some other manner. | | | |
| **NRW-13** | Provide a knowledgeable expert to discuss the nature and extent of any soil contamination in any of the areas proposed for excavation, land clearing, or other disturbance, including but not necessarily limited to the areas for Units 6 & 7, the heavy haul road, transmission lines corridors, expanded substations, the reclaimed water and potable water pipelines, and new access roads. If soil contamination is present, be prepared to explain the proposed remediation method(s) and management of any contaminated soil | | | |
| **NRW-14** | Provide a knowledgeable expert to discuss the quantities of waste to be generated by the fleet vehicle maintenance facility, including but not limited to waste oil, coolant, solvents, and used batteries | | | |
| **NRW-15** | Provide a knowledgeable expert to discuss the quantities of sanitary waste expected to be disposed of by a licensed sanitary waste disposal contractor during construction, and to confirm that licensed facilities are available to handle the quantity of expected waste | | | |
| **NRW-16** | Provide a knowledgeable expert to confirm that space is available in permitted landfills to accept the estimated 435 tons per day of sludge produced during normal operations of the water treatment plant (See also AQ-5) | | | |
| **NRW-17** | Provide a knowledgeable expert to discuss the number and capacity of the diesel tanks for the four standby diesel generators, four ancillary diesel generators, and two diesel-driven fire pumps, and the volatile emissions from those tanks | | | |

| | | | | |
|---|---|---|---|---|
| **NRW-18** | Provide a knowledgeable expert to discuss the construction methods for the deep injection wells, the volumes of drilling fluids to be used, the composition of any additives to those drilling fluids (especially when drilling through the upper aquifers), and the management and disposition of those drilling fluids. | | | |
| **NRW-19** | Provide a knowledgeable expert to discuss the ultimate closure and/or restoration of any onsite disposal areas. | | | |
| **NRW-20** | Provide a knowledgeable expert to discuss the residual concentrations of the chemicals listed in Table 3.6-1 of the ER that are expected to be present in the discharge to the deep injection wells. | | | |
| | | | | |
| **HP - Health Physics and Radiation Protection – Greg Hofer (Rad/Fuel Cycle/Waste/Decommissioning)** | | | | |
| **HP-1** | Have a subject matter expert available to discuss the Tritium Groundwater Monitoring Program, including what industry initiatives it encompasses and results of the monitoring. | | | |
| **HP-2** | Have available for review copies of the Turkey Point Annual Radioactive Effluent Release Reports and the Annual Radiological Environmental Operating Reports submittals to the NRC from 2004 through 2009. | | | |
| **HP-3** | Have available for review a copy of the latest revision to the ODCM submitted to the NRC. | | | |
| **HP-4** | Have a subject matter expert available to discuss the proposed ISFSI. ER Section 4.5.2 states: "There is a plan to add an independent spent fuel storage installation (ISFSI) east of Units 3 & 4 at a distance of approximately 3000 feet from the Units 6 & 7 construction area." Provide details/diagrams/plot plan of this proposed ISFSI. | | | |
| **HP-5** | Provide the background radiation exposure rates for Units 3 & 4 area prior to construction of those units and provide the background exposure rates for the proposed Units 6 & 7 area. | | | |
| **HP-6** | ER Section 4.5.2 states: "Contained sources of radioactive material from Unit 6, including the refueling water storage tank, will be shielded such that the direct dose rate to Unit 7 is negligible." A similar statement about negligible direct dose with respect to Units 6 & 7 is made in ER Section 5.4.1.3. The reference to these statements is the entire AP1000 Tier 2 DCD. Provide a specific Tier 2 DCD Section/Table citation. | | | |

| | | | | |
|---|---|---|---|---|
| **HP-7** | ER Section 4.5.3.2 states: "Direct radiation measurements at the site indicate exposure rates that are consistent with those observed during the preoperational surveillance program." Provide documentation of these measurements and a copy of the referenced preoperational surveillance program. | | | |
| **HP-8** | ER Section 4.5.3.2 makes the following statements: "For conservatism, the dose rate in the Unit 7 construction area from Units 3 & 4 is assumed to be 1 mrem per year." & "Contained sources of radioactive material from Unit 6, including the refueling water storage tank, will be shielded such that the direct dose rate to Unit 7 is negligible." Considering that Unit 6 is adjacent to the Unit 7 construction site while Units 3 & 4 are a considerable distance away, provided justification for this exposure modeling. | | | |
| **HP-9** | Provide resolution to the LADTAP II/GASPAR II vs. RG 1.109 tritium dose factors. NRC/PNL Internal Item? | | | |
| **HP-10** | ER Section 5.4.1.1 describes the location of Receptors 1 through 3. The Section then talks about the injectate front reaching receptor 4. However, no information is given about the location of this Receptor 4. Provide information on Receptor 4. | | | |
| **HP-11** | ER Section 5.4.1.1 makes the following statements:<br>"Liquid effluent discharge — A discharge rate of 27.9 cfs was used, corresponding to the reclaimed water dilution flow rate of 12,500 gpm, which bounds the saltwater discharge rate of 58,000 cfm, as it yields less dilution (Section 2.3.2)."<br>"Irrigation rate — The irrigation rate was assumed to be 110 l/m2-month, corresponding to 1 inch per week."<br>"Transit time — The transit time from discharge to drinking water and irrigated foods was assumed to be 13.7 years, the time required for the injectate to reach Receptor 4."<br>Provide justification that these values are conservative. NRC/PNL Internal Item? | | | |
| **HP-12** | ER Section 5.4.5 makes the following statement: "For Units 6 & 7, the estimated annual occupational dose, including outage activities, is 67 person-rem per unit." The reference to this statement is the entire AP1000 Tier 2 DCD. Provide a specific Tier 2 DCD Section/Table citation. | | | |
| **HP-13** | Replacement of Yucca Mountain discussion in EIS Section 6.1.6 and EIS Figure 6-1. NRC/PNL Internal Item? | | | |
| **HP-14** | EIS Sections 6.1.3 & 6.3, the CO2 metric tons numbers are based on the South Texas EIS Appendix I values. Need the Turkey Point EIS Appendix I values. NRC/PNL Internal Item? | | | |
| **HP-15** | EIS Sections 9.3.X.10 contain the following statement: "Federal and non-Federal projects listed in Table 9-??." Need table references. NRC/PNL Internal Item? | | | |

| | | | | |
|---|---|---|---|---|
| **HP-16** | ESRP 4.5 data & information needs includes the following: The number and locations of construction workers who will be exposed to the radiation sources at the site and the amount of time per year that they will spend at those locations.<br><br>ER Section 4.5 lacks information on worker locations and time at those locations. provide this information. | | | |
| **HP-17** | ER Section 5.4.1.1 discusses the deep well injection of liquid effluents. While the section discusses the possible pathway for drinking water, no pathway is discussed for aquatic biota uptake of the effluent for possible food ingestion by humans. Provide discussion of such a pathway. | | | |
| **HP-18** | ESRP 5.4.1 data & information needs includes the following: "For each liquid radwaste discharge, the transit time from input to a plant discharge stream to the point at which the stream enters an unrestricted area and the stream discharge in cubic meters per second." With respect to the deep well injection ER Section 5.4.1, the only escape pathway is by someone drilling into the aquifer. Provide justification why there are not other pathways for the effluent to escape the aquifer. | | | |
| **HP-19** | ESRP 5.4.1 data & information needs includes the following: "The following distributional data for each of the 22.5-degree radial sectors centered on the 16 cardinal compass directions for radial distances of 2, 4, 6, 8, 10, 20, 40, 60, and 80 km (1.2, 2.5, 3.7, 5, 6.2, 12, 25, 27, and 50 mi) from the reactor:<br>• projected population for five years from the time of the licensing action under consideration<br>• present annual meat production (kilogram/year)<br>• present annual milk production (liter/year)<br>• present annual vegetable production (kilogram/year)<br>• estimate of direct radiation doses from sources within the site."<br><br>While some of this information is provided in ER Section 5.4, it is not in the geographical sectoring nor timeframe as discussed above. Provide this information. | | | |

| | | | | |
|---|---|---|---|---|
| **HP-20** | As discussed in ER Sections 5.5.2 and 5.11.7, Radioactive and mixed waste is stored onsite and periodically shipped to Clive, Utah. However, presently FPL can only ship Class A LLW and some mixed waste to Clive, Utah. Currently FPL cannot dispose of Class B and Class C LLW.<br><br>Based on this, provide the following:<br>▪ disposal/storage plan for radioactive and mixed waste (for waste that can be disposed offsite)<br>▪ storage plan for radioactive and mixed waste (for waste that cannot be disposed offsite)<br>▪ location of the storage site(s) at Turkey Point (descriptions/diagrams)<br>▪ direct radiation exposures to Unit 6 & 7 construction workers and to the public | | | |
| | | | | |
| **Acc - Accident Analysis—Ali Azarm** | | | | |
| **Acc-1** | Have available for review the input and output files for the PAVAN code used to calculate the X/Q values for the evaluation of DBAs in the environmental Report. Include all files required to run the code, including the formatted meteorological data file. | | | |
| **Acc-2** | Specify what revision of AP-1000 PRA information was used for CDF contributions (internal and external initiators), Release Categories, and source terms. | | | |
| **Acc-3** | Have available for review, in electronic format, the input and output files for the MACCS2 code used to evaluate the consequences of Severe accidents in the environmental report. Include the meteorological data for the three years 2002, 2005, and 2006. | | | |
| **Acc-4** | Have available the subject matter expert who can provide the population dose from water ingestion for each of release categories (add a column to Table 7.2-1). | | | |
| **Acc-5** | Have available the subject matter expert who can provide the amount of the fish being harvested (in Kg) from the water bodies surrounding within the 50 miles of the site. | | | |
| **Acc-6** | Have available the subject matter expert who can provide the description and justifications for the protective actions modeled in MACCS-2 analysis. | | | |
| **Acc-7** | Have available the subject matter expert who can provide a description, basis, and justifications for the evacuation model used in the MACCS-2 analysis. | | | |

| | | | | |
|---|---|---|---|---|
| **Acc-8** | Have available the subject matter expert who can provide an explanation of how the site specific risk contributions such as high wind, seismic, external flood, and risk of the collocated plants have been taken into account. | | | |
| **Acc-9 SAMA** | Have available the subject matter expert responsible for the accident analysis who can explain why the ratio of CDF (5.0E-07/2.4E-07 per reactor year) is used for adjusting the accident cost for SAMA analysis rather than LRF ratio of (5.94E-8/1.95E-8). Provide a comparison of the SAMA analysis considering these two ratios. | | | |
| **Acc-10 Alt.-site** | Have available the subject matter expert who can discuss the process and justification for the scores determined for accident effects in Table 9.3-6 of ER. Provide the supporting calculations that shows the radiological impact from DBA and potential severe accidents; and demonstrate that the surrounding population centers, meteorological conditions, and lands and bodies of waters among alternative sites are accounted for. Provide the specifics of any such calculations including the description of input/output. | | | |
| | | | | |
| **T - Transportation - Phil Daling** | | | | |
| **T-1** | Provide access to electronic copies of RADTRAN and TRAGIS input and output files. (ESRP 5.7.4; 7.4) | | | |
| **T-2** | Provide access to documentation or an individual knowledgeable about the anticipated inventory of so called 'Clinch River Unidentified Deposits' (CRUD) on the external surfaces of spent fuel assemblies. The information is needed to evaluate an issue that was unresolved in the previous ESP analyses (NUREG-1811, NUREG-1815, and NUREG-1817) about a lack of a CRUD source term for advanced LWR fuel assemblies. (NOTE: The previous ESP analyses were used as models for the transportation impact analyses in the Turkey Pt. ER). (ESRP 7.4) | | | |
| **T-3** | Provide access to calculation packages that were used to develop Sections 5.7 and 7.4 of the ER. (ESRP 5.7.4; 7.4) | | | |
| | | | | |
| **Alt – Alternatives - Tom Anderson** | | | | |
| **Alt-1** | Have an expert available who can discuss whether sufficient power could or could not be purchased, ER states only current approach to purchases (ER Rv 0, Sec 9.2.1.1 p. 9.2-3)(ESRP 9.2.1) | | | |
| **Alt-2** | Have an expert available that can identify how the provisions of NRC Reg Guide 4.7 and 10 CFR 100 were incorporated into FPL's site screening methodology.(ESRP 9.3) | | | |

| | | | | |
|---|---|---|---|---|
| **Alt-3** | Have an expert available that can identify how criteria from the EPRI Siting Guide were applied to the alternative site screening process as identified on ER, Rv 0, p. 9.3-3. (ESRP 9.3) | | | |
| **Alt-4** | Have an expert available that can discuss the details of the alternative site screening processes summarized in ER Rv0 Section 9.3.2 used by FPL and it's consultant (ER Rv 0, p. 9.3-5) (ESRP 9.3) | | | |
| **Alt-5** | Have an expert available that can discuss the application of exclusionary criteria independently identified by FPL's consultant (ER Rv 0. P 9.3-5)(ESRP 9.3) | | | |
| **Alt-6** | Have an expert available that can discuss the basis for dismissing the sites/areas independently identified by FPL's consultant from further consideration (ER Rv 0. P 9.3-5)(ESRP 9.3) | | | |
| **Alt-7** | Have an expert available that can discuss the characteristics of population density and proximity to highly populated areas for the preferred site and alternative sites. (ESRP 9.3, RG 4.7 and 10 CFR 100) | Ali (Accidents) would like to sit in on this discussion | | |
| **Alt-8** | Have an expert available that can discuss the definition, scaling, scoring, importance, and weighting of the criteria summarized on Tables 9.3-3, -4, and -5 (ESRP 9.3) | Ali (Accidents) would like to sit in on this discussion | | |
| **Alt-9** | Have an expert available that can confirm the availability of cooling water for the alternative sites | | | |
| **Alt-10** | Have available for review the flowing documents that relate to water supplies for the proposed units (References for Appendix 10 of the SGA):<br><br>Analysis of Baseline Water Source (HDR, December 20, 2007).<br>Task 1 Initial Water Source Alternative Screening (HDR, March 13, 2008)<br>Task 2 and 3 Water Source Alternative Characterization and Scope (HDR, March 2008).<br>Conceptual Engineering of Cooling Water Supply and Disposal For Turkey Point Units 6 & 7 (HDR, June 30, 2008).<br>Cooling Water Supply and Disposal Conceptual Design Report (HDR, March 2009)<br>ESRP 9.4 | | | |

| | | | | |
|---|---|---|---|---|
| **Alt-11** | Have available a knowledgeable expert to discuss quantitative information on effects of alternative cooling tower designs (e.g. fog, drift, plume visibility, endocrine disrupters in reclaimed water)<br>ER section 9.4.2.1 | | | |
| **Alt-12** | Have available a knowledgeable expert to discuss alternative intake systems considered for Turkey Point, including intake design and impacts of each type of intake. ER Section 9.4.2.1 | | | |
| **Alt-13** | Have available a knowledgeable expert to discuss alternative discharge systems considered for Turkey Point, including design and operational characteristics of each alternative. ER Section 9.4.2.1 | | | |
| **Alt-14** | Have available a knowledgeable expert who can discuss alternatives for water treatment, including the circulating water system and service water system, and can discuss in detail the chemicals, additives and mechanical treatment, and operating cycles for these systems. Section 9.4.2.1 | | | |
| **Alt-15** | Have available the subject matter expert responsible for the analysis of cooling system options to discuss the alternatives evaluated. For example Chapter 9 discusses the option of constructing a new cooling pond for Units 6 & 7 but does not consider using the existing cooling canal system – possibly with helper towers or spray cooling capability added. Also the ER considers the Boulder Zone as a feasible source of water for cooling system makeup – discuss the current status of permitting the Boulder Zone as a source of water for withdrawal.<br>ESRP 9.4 | | | |
| | | | | |
| **BC - Benefit/Cost - Michelle Niemeyer** | | | | |
| **BC-1** | Provide a knowledgeable expert on the benefits and costs of Turkey Point Units 6 and 7 and can discuss the following:<br>• Important conclusions to be drawn from the summary in Table 10.4.1.<br>• Characterization of the net economic benefits (or cost) to society of the proposed action, based on this assessment.<br>• Any economic incentives influencing the decision to build<br>• Factors affecting the reliability of the capital cost estimates discussed<br>• Comparison to costs reported for other AP 1000 sites<br>• Comparison of costs to recently published literature<br>• Expected trends in costs over the next 10 years<br>• Factors affecting the construction schedule | | | |

| | | | | |
|---|---|---|---|---|
| | **NP - Need for Power - Michelle Niemeyer** | | | |
| **NP-1** | Provide a knowledgeable expert on the need for power with regard to FPL and Turkey Point Units 6 and 7 and who can discuss:<br>• The regulated utility market in Florida<br>• The integrated resource plan and process<br>• Any applicable power pool agreements and reserve margin requirement<br>• Retiring/decommissioning of any existing plants<br>• Demand growth methodology<br>• Historical and projected trends affecting demand growth | | | |
| | | | | |