

December 8, 2012

MEMORANDUM TO: William F. Burton, Branch Chief  
Environmental Projects Branch 2  
Division of New Reactor Licensing  
Office of New Reactors

FROM: Tomeka L. Terry, Project Manager **/RA/**  
Environmental Projects Branch 2  
Division of New Reactor Licensing  
Office of New Reactors

SUBJECT: SUMMARY OF THE ENVIRONMENTAL SITE AUDIT RELATED  
TO THE REVIEW OF THE EARLY SITE PERMIT FOR VICTORIA  
COUNTY STATION

The U.S. Nuclear Regulatory Commission (NRC) staff, Argonne National Laboratory and Numark participated in an environmental site audit related to the review of the early site permit (ESP) application submitted by Exelon Nuclear Holdings Texas, LLC (Exelon) for Victoria County Station. The environmental site audit was held from January 13, 2012, in Victoria, Texas. The purpose of the trip included: 1) discussions with Exelon concerning the environmental report submitted as part of the application and associated information needs; 2) reviews of documentation related to the environmental report; 3) tours of the site and surrounding areas; and 4) meetings with Federal, State, and local officials regarding the application and review process.

Enclosure 1 is the list of attendees that participated in the audit and tours. Enclosure 2 is the schedule of events. Enclosure 3 is the site audit summary report.

Each day of the site audit included opening remarks, a follow-up of the previous day's events as needed, discipline-specific discussions, and a summary of the day's discussions. Additionally, Exelon provided presentations during the week including: San Antonio Bay bio-statistical study, alternative site selection, and Texas water rights. Exelon also provided a general tour of the Victoria County Station site, as well as discipline-specific tours. These discipline-specific tours included proposed hydrologic features onsite and offsite; the meteorological tower; Guadalupe River; and potential pipeline and transmission line routes. On Friday, January 13, 2012, the NRC staff met with the Paradise Ranch resident to discuss their concerns regarding to the Victoria site.

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W. Burton

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At the end of the audit, the NRC team reviewed the status of the information needs with Exelon and its contractors. There will be additional conversations to establish the schedule by which Exelon will provide additional information to the NRC reviewers. In some cases, the NRC may send requests for additional information to Exelon regarding remaining information needs.

Docket No.: 52-042

Enclosures:  
As stated

cc w/enclosures: See next page

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**Site Audit Trip Report  
Victoria Station County  
Early Site Permit Application  
(Exelon Nuclear Holdings Texas, LLC)  
January 9-13, 2012**

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Tony Smith	RPS-Espey
Susan Butler	CH2M Hill
Sam Vaugh	HDR

## Schedule of Activities

**Sunday, January 8, 2012**      Travel to Victoria, Texas

### **Monday, January 9, 2012**

**7:30 AM**      Meet in the Lobby for Introductions  
**7:45 AM**      Leave hotel lobby to travel to Meeting Location  
**8:00 AM**      Arrive at Meeting Location & Complete Sign In  
**8:15 AM**      Opening Meeting, Introductions, Overview  
**9:30 AM**      General Site Tour  
**11:30 AM**      Lunch  
**12:30 PM**      NRC/State and Federal Agencies Meeting  
**1:30 PM**      FPL Presentations – Alternative Site Selection Process, Alternative systems, Plant Operations  
**3:30 PM**      Resource specific site visits or meetings  
**5:30 PM**      Adjourn

### **Tuesday, January 10, 2012**

**7:45 AM**      Meet at Audit Site  
**8:00 AM**      Breakout discussions and Resource specific tours  
    •   Transmission Lines  
    •   Borrow Areas  
**12:00 PM**      Lunch  
**1:00 PM**      Breakout Discussions  
**4:00 PM**      Staff Data Needs (Staff meet with Deputy Team Lead to discuss information need)  
**4:45 PM**      Combined NRC/ANL-Numark/Exelon Meeting  
**6:00 PM**      Adjourn

### **Wednesday, January 11, 2012**

**7:45 AM**      Meet at Audit Site  
**8:00 AM**      Break out discussions  
    Boat Tour for Surface Hydrology and Aquatic Ecology  
**12:00 PM**      Lunch  
**1:00 PM**      Breakout Discussions  
**4:00 PM**      Staff Data Needs (Staff meet with Deputy Team Lead to discuss information need)  
**4:45 PM**      Combined NRC/ANL-Numark/Exelon Meeting  
**6:00 PM**      Adjourn

### **Thursday, January 12, 2012**

**7:45 AM**      Meet at Audit Site  
**8:00 AM**      Break out discussions  
**12:00 PM**      Lunch  
**1:00 PM**      Breakout Discussions  
**4:00 PM**      Staff Data Needs (Staff meet with Deputy Team Lead to discuss information need)  
**4:45 PM**      Combined NRC/ ANL-Numark/Exelon Meeting  
    **Team Lead Closeout Meeting** – Review of information needs resolutions and identify follow up actions  
**6:00 PM**      Adjourn

**Friday, January 13, 2012**

**8:00 AM to 1:00 PM - Team Lead Closeout Meeting** – Review of information needs resolutions and identify follow up actions.

**1:30 PM**      Audit Adjourn

## **Summary of Issues or Concerns by Technical Discipline**

### **Accidents**

For the design basis accident (DBA) discussion, the site audit team noted that Exelon Nuclear Holdings Texas, LLC (Exelon's) Environmental Report (ER), Revision 0, does not provide the specific revision number of each Design Control Document (DCD) that was used for each Advanced Light Water Reactor (ALWR) type (AP1000, APWR, ABWR, ESBWR). Exelon agreed to place this information in the electronic reading room via a cross reference table to link the DCD tables to the ER tables, so the reader would know exactly where the genesis of radiological activity release values delineated in the Section 7.1 tables. Additionally, the applicant committed to place the actual DCD revision numbers that were used for each ALWR type in Revision 1 of their ER expected to be released during March 2012.

Exelon's severe accident (SA) analyses presented in the ER are based on the ABWR and ESBWR reactor types using information from Probabilistic Risk Assessments (PRAs) performed specifically for those two reactor types. Although the site audit team clarified that it is not seeking finality of accident consequences at the ESP stage, it will be made clear in the draft EIS assumptions for the Plant Parameter Envelope (PPE) that the SA risks are based on ABWR and ESBWR analyses, and that if Exelon selects an AP1000, APWR, mPower, or some other reactor type, then Exelon will need to re-evaluate SA risks to determine if such other reactor types sited at VCS meet U.S. Nuclear Regulatory Commission (NRC) regulatory criteria and safety goals.

In summary, if a new reactor technology not previously certified by NRC is selected, the applicant committed to perform additional SA analyses at the combined license (COL) stage. That is, if necessary, Exelon will provide additional reactor specific analyses at the COL stage to demonstrate that the ESP findings remain valid and to confirm that their postulated accident consequences and environmental impacts are still within their proposed PPE and they meet NRC regulatory criteria and safety goals.

### **Air Quality and Meteorology**

The air quality and meteorology team toured the VCS site and observed the meteorological tower location. The tower, instrument shelter, and fencing were in place; however, the instrumentation had been removed on July 8, 2009, after the two-year pre-application monitoring program concluded.

In order to determine if the measurements taken at the VCS site are representative of the weather in the region, the team requested that the applicant provide annual and seasonal wind roses for the Victoria National Weather Service station for the same 2-year period as the onsite met data, for comparison to the 10-meter onsite wind data.

The meteorological data files provided as input to the SACTI model are dated 1993-1997, however the environmental report (ER) states that modeling was performed using the meteorological data from 2003-2007. This discrepancy is due to the fact that the SACTI model cannot handle meteorological years after 1999. The data is actually from 2003-2007, but had to be renamed to 1993-1997 for the SACTI model to run properly. The justification of key parameters used in calculations for the short term and long term diffusion estimates were discussed (ER Sections 2.7.5 and 2.7.6). The smallest cross-sectional area of the building

configurations were used, as that would yield the most conservative model results. The sea breeze recirculation factor option was used in the dispersion models. The team requested that a few sentences stating the use of this option be included in the next revision to the ER. Such a statement is already included in Site Safety Analysis Report (SSAR) Section 2.3.5.1. The basis for locations of the model receptors was requested. This was already requested in an Request for Additional Information (RAI) resulting from the safety review and NRC has that information.

The ER indicates that the bounding structure height is 230 feet(ft) (USAPWR design). In order to comply with the guidance that the meteorological tower should be no closer than 10 times the height of the nearest building, the tallest building must be at least 70 ft inside the power block boundary. The applicant showed the team a figure of the USAPWR design centered on the power block and it was more than 70 ft inside the boundary.

The ER indicates that there is expected to be a fire pump as part of the ancillary equipment required onsite. ER Section 3.6.3 includes a discussion of ancillary equipment and provides emissions for all, but the fire pump. The team requested that ER Table 3.6-2 include the diesel fire pump emissions.

There were several key issues not addressed in the ER, such as air quality as it relates to cumulative impacts, expected air quality emissions associated with construction activities, a complete greenhouse gas (GHG) analysis, and a discussion of climate change.

The team requested that ER Section 4.7 include a cumulative air quality impact analysis associated with the proposed project. This analysis should consider the past, present, and reasonably foreseeable future actions of the VCS project.

A discussion of expected air quality emissions of criteria pollutants and GHGs in terms of CO<sub>2</sub>eq associated with construction activities was requested. Emissions should be quantified, including for example those related to providing fill (i.e., trucking of fill to raise the elevation of the power block area) at the VCS site and at each alternative site.

The ER contained a short discussion of GHG emissions in ER Section 5.8.1.2 based on operations at other Exelon Nuclear plants. It is not clear that these operational estimates were made following the guidance in the NRC Supplemental Staff Guidance in NUREG-1555 (ML100990185). The team requested that the applicant put their GHG calculation documentation in the electronic reading room. There is also a requirement to include a GHG analysis for not only operation, but also for construction and decommissioning. ER Section 4.4.1.3 briefly mentions GHG due to construction of a typical nuclear power plant, but this should be coupled with site specific construction activities with estimates made following the guidance in ML100990185.

During the site audit, a request for a discussion of climate change revealed that such a statement was included in Section 2.3.1.7 of the VCS SSAR. The team has requested that for completeness this discussion also be included in the ER.

## **Aquatic Ecology**

The aquatic ecology team toured major aquatic habitats on and near the VCS site and also observed several locations of the Guadalupe River (source of makeup water for the VCS cooling basin and the receiving stream for the VCS blowdown). Other aquatic locations observed included the San Antonio River (drive-by only), the Victoria Barge Canal (particularly the Port of Victoria turning basin that the VCS haul road would extend to), the Guadalupe Blanco River Authority Calhoun Canal System (evaluated as an alternative raw water makeup system for the VCS cooling basin), and San Antonio Bay (observed during a side-trip to the Aransas National Wildlife Refuge). One of the Guadalupe River stops included the salt water barrier (downstream of the proposed VCS intake canal). One of the operators described the operation of this facility. During the site audit, discussions were held with Exelon and some of their contractor staff who conducted field surveys for the ER with representatives from the FWS and TPWD. Several documents identified during the site audit are expected to be provided by the applicant for docketing. These include the aquatic sampling report done for the ER, the San Antonio Bay biostatistical analysis, and American Electric Power's transmission line maintenance manual. Specific issues and points of fact were identified relative to the following items:

- The site audit proved valuable to observe the influence of drought on the various waterbodies in the area, particularly Linn Lake and other onsite and near-site waterbodies.
- Salinity concerns regarding the blue crab-whooping crane relationship remains a primary concern. The influence of VCS operations, especially during drought periods, will be a complex issue to address.
- The FWS and TPWD staff expressed their concerns that the biostatistical analysis for the San Antonio Bay conducted for the applicant did not address appropriate depths or prey species of relevance to whooping cranes.
- The FWS and TPWD also have concerns regarding impacts to habitats and hydrology from the haul road, intake line, and blowdown line.
- Fracking potential in the region is a new cumulative issue that applies to a number of disciplines.
- Aquatic sampling station GR1 is actually downstream of the blowdown discharge point, not upstream of it as described in the ER.

## **Alternatives**

A breakout session was held with the Exelon contractor that conducted the selection and evaluation of the alternative sites. Personnel were interviewed to understand in greater detail the methodologies that were employed and the sources of data and information that were used. It was determined during the interviews that the contractor responsible for selecting and evaluating alternative sites was not given the responsibility to identify candidate areas but instead, candidate areas were provided by Exelon. This revelation subsequently led to a RAIs,

asking Exelon to provide detailed information on how the candidate areas were selected. Exelon has agreed to submit such information for the docket.

Discussions were held with Exelon representatives regarding re-scoring of the Matagorda site. It was revealed that after the Matagorda site was initially selected for the proposed new reactor, additional engineering evaluations determined that fill would need to be imported to the site to raise the elevation of the ground surface in the power block to mitigate flooding that might occur during storm surge conditions. Exelon agreed to provide for the docket details regarding that engineering analysis and the affect it had on the overall score for the site, (at this level of site evaluation, it was determined that Exelon did not need to identify the source of the fill, but would need to estimate the approximate volume.) Exelon will also provide for the docket an evaluation of the environmental impacts that would result from actions taken to mitigate flooding at the Matagorda site as well as at the VCS site and the other alternative sites where flooding potential exists.

### **Cultural Resources**

The site audit included a tour of the Victoria Site. During the site tour several of the features associated with the McFaddin Rural Historic Landscape were noted. The site tour was conducted with Kathy Roxlau, the applicant's contractor, who provided clarification on the various resources present on the property. On Tuesday, January 10, 2012, the cultural resources team reviewed documentation relating to the identification of historic properties in the project area and met with the applicant and NRC staff to discuss options available for addressing adverse effects resulting from the project. On Tuesday afternoon, the team toured the resources that could be affected visually by the project; locations visited included several historic homestead located adjacent to the VCS property, as well as the McFaddin Historic District, including the McFaddin cemetery. On Wednesday, January 11, 2012, the team visited the Museum of the Coastal Bend, a museum dedicated to the history of the region. The team attempted to meet with museum staff to discuss the material found throughout the region, however, no staff members were available. The audit finished with discussions with NRC staff about the potential for developing agreement documents to address adverse effects that could result from the proposed project.

- The audit was beneficial for understanding the types of resources that could be affected by the proposed project and for gaining an understanding of the McFaddin Ranch Historic Landscape.
- Addressing the effects on historic properties for these types of projects is a general issue that has not been resolved. It was beneficial to interact with the applicant's contractors, the applicant, and other NRC environmental review team members on this issue.
- Requested clarification and additional documentation on several issues associated with the consideration of historic properties for the project. Documentation requested pertains to defining the McFaddin Ranch Rural Historic Landscape and what features contribute to this status. Documentation on the identification of historic properties along the transmission lines was also requested.
- Attempts have been made by the NRC to contact the Victoria County Historical Commission.

### **Non-Radioactive and Radioactive Waste**

The issues discussed at the site audit included the gaseous and liquid source terms used in the dose analysis, potential recirculation of discharged upstream liquid effluent into the cooling basin/reservoir, volume/concentration of different waste streams and their disposal options, and the cumulative effects of waste disposal from construction and operation of the proposed units at VCS site and at alternate sites.

### **Non-Radiological Health**

The issues discussed at the site audit included the impact to construction workers from existing oil and gas wells at the VCS site; liquid effluent discharge plume size, temperature, and its impact on etiological agents; health impacts of different algal blooms; cumulative health impacts of air quality, noise, and etiological agents at the VCS site and at alternate sites.

### **Health Physics and Radiation Protection**

The issues discussed at the site audit included the construction worker dose estimates, parameters used in LADTAP and GASPAP code dose calculations from radionuclide (liquid and gaseous) effluent releases, use of 2000 census data for 50-mile population, present and future known drinking water intake locations, pathways included in dose estimations, dose estimates for biota, leakage monitoring program for the blowdown discharge piping, cumulative health impacts for the proposed VCS site and other alternative sites.

### **Hydrology**

The hydrology team visited major surface water features of the site, including the cooling reservoir location, some streams on and near the site, Linn Lake, the proposed locations of the primary and alternative water supply intakes, and the approximate location of the discharge structure.

The team had several days of discussions with the applicant, including one breakout session to discuss hydrology information needs. The team discussed Texas law regarding water rights with the applicant's representatives, and how it applied to water use at the site. Water rights available to the plant have a high priority, but are still junior to other water rights for extreme droughts.

The team had useful discussions with the applicant on several topics, including: simulations of water use and availability under drought conditions; protocols for filling cooling basin and discharging blowdown; effects of freshwater input from the Guadalupe River to San Antonio Bay; planning studies for Texas regional authorities affected by the preferred and alternative sites for municipalities, industry and mining ("fracking" for natural gas); use of salt water for cooling; groundwater seepage from cooling reservoir and its effects on surface water and groundwater resources; general groundwater conditions at the site, including communication among aquifers and possible saltwater upwelling; practicality of radial collector wells as an alternative technology for intake water, and water treatment options for preferred and alternative sites.

Major issues identified that will require more study are:

- The limited availability of reliable water supplies at some alternative sites; and
- The effects of reduced freshwater inflows to downstream estuaries and bays, particularly the Whooping Crane habitat in Aransas Bay.

### **Land Use**

No major land use issues were identified during the site audit. The land use team toured the VCS plant site to view areas potentially affected by the proposed power block, interconnection station, cooling basin, water make up pipeline routes and intake location, and blow-down pipeline route and discharge location. The locations of the power block and cooling basin were observed and photographed. The makeup water intake location on the Guadalupe River (at the saltwater barrier) and an alternative intake location on a canal were observed and photographed.

Offsite locations, including the barge canal turning basin and adjacent upland areas on the Port of Victoria property proposed for heavy materials handling were also observed and photographed. Observation of the proposed heavy haul road corridor, the new canal bridge crossing, and the route of the blow-down pipeline was not possible due to access constraints. A second site tour of the VCS site allowed the team to observe and photograph several on-site water courses, wetlands, and the shoreline of Linn Lake.

The team also conducted a driving tour of the vicinity to observe and photograph land use within a 6-mile radius of the VCS site. Observations during the driving tour confirmed the area as primarily undeveloped rangeland with scattered single family homes, farm houses and outbuildings. Several areas with more concentrated development were observed, including 20 plus single family homes along Flemming Prairie Road, a gas station and mini-mart at the corner of Flemming Road and US Highway 77, and 8 to 10 buildings and single family homes, including a modern grain elevator/rail facility along FM 445, in the town of McFaddin, Texas. A large chemical plant between the barge canal and Highway 185 east of the VCS site was also observed.

The team participated in breakout sessions with Exelon staff to discuss land use on the VCS site, along transmission line corridors in the project vicinity, alternative power plant sites, and alternative transmission line corridors. The team prepared a list of information needs to be resolved during the site audit or through the RAI process, as follows:

- Acreage impacts to Prime or Unique Farmland affected by building activities on the project site, water intake pipelines, heavy haul road, and blowdown pipeline, at all alternative sites.
- Current figures for the number of active wells and permitted exploration wells on the VCS site.
- Additional information on existing oil and gas pipelines and oil and gas wells in the project vicinity.

- Conceptual plans for the barge facility at the turning basin.
- Updated data for annual yields of agricultural products.
- Copy of the March 2009 Corridor Study prepared by Photo Science.
- Copy of the AEP Interconnection Study.
- Additional information on transmission line corridors – acreage, location, and land use designations/impacts.
- Maps of the 200 foot wide “representative route” for all transmission lines defined in the ER.
- Total acreage by U.S. Geological Survey land use classifications for all representative routes shown on the maps mentioned above for the VCS site (including shapefiles forming the basis for the this data).
- Text, tables, and maps describing the land use impacts for the transmission line routes developed for each alternative site (TetraTech documents).
- Text, tables, and maps describing land use impacts (shape files of overlays) for each alternative power plant site.

### **Socioeconomics and Environmental Justice**

The socioeconomics the team conducted a number of meetings with local officials and organizations during January 9-12, 2012, Site Audit. The area is experiencing significant economic growth as a result of the Eagle Ford shale exploration, Caterpillar plant construction and secondary manufacturing support, Invista plant reconfiguration, and other developments. This has resulted in a significant lack of hotel/motel availability, reduced housing availability, and increased costs. Victoria City and County, Texas, have made significant investments in improvements to education, utilities, a new Emergency Operations Center, roads, parks, and other facilities/activities to address this growth, in anticipation of future growth, and with the potential development of the VCS project in mind. The City and County understand that they might have to make additional future adjustments to this growth and the potential VCS project, but they feel they are well-prepared and able to deal with any upcoming issues.

Discussions with Exelon focused substantially on the need to update the ESP application with the 2010 census data (versus the 2000 data currently in the ESP) and to take into account these significant changes in the County and surrounding area. It also was suggested that the Applicant use a gravity model or current industrial growth employment to estimate potential distribution of the VCS workforce and then estimate associated potential impacts. Additional calculations of property and other tax revenues, and greater explanation/clarification of existing estimates in the ESP also would be helpful. A summary of discussions held with the local officials is provided below. A more detailed account is available in Appendix A.

- Discussions with Mayor Will Armstrong on Monday January, 9, 2012, were related to economic and housing development in the area, overview of the city of Victoria, water availability, and subsistence activities.
- Discussions with Chief Deputy Sheriff Terry Simons, focused on law enforcement and judicial resources, population, crime, emergency response, communication systems, and airport capabilities.
- On Tuesday, January, 10, 2012, a meeting with the local shareholders in the Victoria Economic Development Corporation was held. The local shareholders believed sewer/water, schools, police, fire/EMS, hospitals, and housing are well-prepared. They believed the roads may need some improvements, but it is a “good problem to have” and is very manageable. Most of the City’s growth has been to the north, and not out toward the proposed VCS plant site.
- Discussions with Judge Donald R. Pozzi were related to the county’s relationship with Exelon, water availability, environmental justice issues, and housing and growth.
- Discussions with Jennifer Stastny, the Executive Director of the Port of Victoria, focused on the capabilities of the port currently, and the ability for the port and railroad infrastructure to handle heavy construction materials related to the construction of VCS.
- A meeting with the Victoria Metropolitan Planning Organization Policy Advisers Committee indicated Highway 77, near the proposed VCS, site had a level of service (LDS) grade of C. To maintain this LOS with VCS construction traffic on the road would require an off-the-cuff estimated \$20 million overpass to be built for the site entrance.
- Discussions with Emergency Management Coordinator, Jeb Brian Lacey, concentrated on the construction of the new Emergency Operations Center, electricity demand, and the emergency preparedness of the area, including the preparedness plan with area businesses.
- On Wednesday, January, 11, 2012, discussions with an Exelon representative focused on taxes and the Refugio Hispanic census block nearby.
- Discussions with the African American Chamber of Commerce focused on housing/rental markets, employment, education, and safety of potential construction of VCS.
- On Thursday, January 12, 2012, discussions with an Exelon representative focused on revisions to the ER and a field trip to the Matagorda site and the town of Palacios.

## **Terrestrial Ecology**

The terrestrial ecology team participated in a tour of terrestrial and aquatic habitats of the VCS site including representative wetland areas, Dry Kuy Creek and Linn Lake, and held discussions with Exelon contractor staff who have surveyed the site and prepared portions of the ER. In addition, the team visited Aransas National Wildlife Refuge and observed wintering whooping cranes and marsh habitats. Major issues discussed and reviewed included:

- Habitat acreages, dominant plant species, associated wildlife;
- Wetland delineation, functions, and hydrologic characteristics;
- Identification of habitats along intake canal, blowdown line, and haul road; and
- Water withdrawal effects on whooping crane and other species.

## **Transportation**

Transportation issues were discussed via conference call. Two issues remain. The radionuclide inventories provided in the ER for use in calculating transportation accident risks did not include estimates for Kr-85 and I-129. These radionuclides have been included in the inventories in previous new reactor license application EISs. The second issue is related to verification of input data used by Exelon to estimate the number of shipments required for operation of a reactor at the Victoria site. Sources of information for various input data (varies by reactor type) used by Exelon have not been made available for review and docketed to enable use in the EIS.

## APPENDIX A

### **Consolidated Socioeconomics and Environmental Justice Victoria County Station Nuclear Power Plant ESP Site Audit Notes**

From notes taken by Daniel Mussatti (NRC), Michael Purdie (NRC), and Gregory Poremba (Cardno ENTRIX).

#### **Summary**

The socioeconomics team conducted a number of meetings with local officials and organizations during January 9-12, 2012 of the Site Audit. The area is experiencing significant economic growth as a result of the Eagle Ford shale exploration, Caterpillar plant construction and secondary manufacturing support, Invista plant reconfiguration, and other developments. This has resulted in a significant lack of hotel/motel availability, reduced housing availability, and increased costs. Victoria City and County have made significant investments in improvements to education, utilities, a new Emergency Operations Center, roads, parks, and other facilities/activities to address this growth, in anticipation of future growth, and with the potential development of the VCS project in mind. The City and County understand that they might have to make additional future adjustments to this growth and the potential VCS project, but they feel they are well-prepared and able to deal with any upcoming issues.

Discussions with Exelon focused substantially on the need to update the ESP application with the 2010 census data (versus the 2000 data currently in the ESP) and to take into account these significant changes in the County and surrounding area. It also was suggested that the Applicant use a gravity model or current industrial growth employment to estimate potential distribution of the VCS workforce and then estimate associated potential impacts. Additional calculations of property and other tax revenues, and greater explanation/clarification of existing estimates in the ESP also would be helpful. An additional summary of the remaining issues is provided in the attached Table.

#### **Monday, January 9, 2012**

#### **Summary of the Meeting with Mayor Will Armstrong, City of Victoria, and Dan Massatti, Michael Purdie, Pat Madden, and Greg Poremba:**

The Mayor began by giving a brief overview of the local economy since the application has been docketed and our scoping meeting in December 2010. The Mayor indicated that tax revenues from motel/hotel sales taxes are up 42 percent from 2010 and sales taxes are up 24 percent. The City has been lowering its tax rate, and is hoping to continue to lower the tax rate from the current \$0.70 to \$0.645. The City anticipates that the rate will drop about half a penny a year until reaching the goal.

Increased tax revenues are mostly due to the Eagle Ford shale oil play running from about 30 miles north and west of Victoria City, Texas down to Mexico, which is expected to continue for 20 years. The City of Victoria also provided/facilitated a 320-acre site as well as a "couple of million" in tax incentives (about \$1 million of which was invested back into the city for road projects) to attract a large Caterpillar heavy industrial

manufacturing plant. That plant is now being constructed by about 150 people and it will employ 500-700 people during operation. 106 acres have been bought next to the Caterpillar site for downstream manufacturing suppliers (a Chinese firm) of the pins and bushings needed to assemble the tracks for Caterpillar, as well as John Deere machinery. A \$19 million apartment complex is being built, another hotel development has been incentivized by the City, and two additional hotel chains are considering building new hotels in the city.

The Mayor also indicated that the city is in a 4 out of 10 year plan for a \$42 million investment in underground utilities and roads, and they just finished a \$150 million bond election investment to build new local schools. The city has also successfully lobbied and invested in having the University of Houston branch converted from a 2-year school to a 4-year school. In the near future, that campus might shift to a Texas A&M University facility.

The Mayor indicated that the large investment in education was mostly due to the substantial immigration of Hispanics into the area that are under-educated, and there is a great emphasis on education overall in Victoria. The local community college is also active in supporting the community by offering training for the upcoming Caterpillar plant, the oil industry, and they have indicated a willingness to train students/residents to support the VCS nuclear power plant if it is built. The Mayor finished his summary stating that, "Victoria has a very bright future with, or without, the potential nuclear units."

The Mayor suggested that we contact Robert Lowe or Robbie Burge at the Port of Victoria to learn more about activities and expansion at the manufacturing facilities and the barge canal. The fracking activities in the Eagle Ford field requires the use of a specialized sand that is being imported into the Port facility by barge on the canal, and then trucked to where it is needed. He estimated that the barge facility was processing a barge per day for this purpose, with each barge load providing 60 trucks of material per day for hauling offsite (resulting in related truck traffic issues). The Port is expanding, having recently bought an additional 1,700 acres and employed an additional 70-80 people.

After some further discussion, the Mayor indicated that there are approximately 600 city employees. However, the City is experiencing a shortage of about 25 staff in the truck/utility department because many truck drivers have left to work on the Eagle Ford oil fields.

When asked about housing in the area, the Mayor indicated that there were approximately 300 houses for sale (down from 700 in 2010). There are not many houses being built in the City or surrounding area, but some major construction firms have indicated an interest in moving some of the operations into the area to start building more housing units since the supply has diminished and the demand had increased. Texas A&M University will come out with a housing and economic well-being study in the future. In addition, he also suggested that we obtain a copy of the Swearingen Report, which is published monthly by the Ron Brown Company – Caldwell Banker summarizing the housing availability and prices.

When asked about further investments that may affect housing, the Mayor indicated that the Invista plant (a subsidiary of Koch Industries, Inc. that is part of the old Dupont plant and will produce polyethylene fibers and polymers) near the Port of Victoria is receiving

a large investment for modernization, that may be a larger investment than the Caterpillar heavy equipment plant in Victoria City, Texas. The Mayor stated that in about 6 weeks there would be 400-500 people employed to reconfigure the plant for Koch manufacturing purposes, and that 100 engineers would be hired. He also mentioned the Interplast facility, which does downstream manufacturing for Formosa Plastics. The Formosa Plastics plant in Point Comfort employees 3,500 people at peak, manufacturing plastic sheeting, liners for trucks, etc. He estimated that 30-40 %t of their workforce lives in Victoria, and that 50-60 % t of their retail expenditures occurs in the city. A large Alcoa plant is also located in Port Lavaca that has a significant workforce.

The Mayor said that Texas needed additional power generation because the state was already suffering from brownouts during heavy loads and bad weather.

The Mayor then rode with us around the City of Victoria. He indicated that the city and county parks are, "heavily used." The City has modernized their baseball field with an investment of \$10 million. They also hired a director to attract and set up baseball tournaments in the city. This facility is used by the University of Houston, St. Joe (a private Catholic school), two high schools, and a semi-professional baseball team. The City is planning to build a Visitor Center to attract more people to the downtown area. They also would like to have a Film Festival, in addition to the Boot Festival, Jazz Festival, and Theatre that currently are active.

Michael Purdie asked him to further explain what he discussed at the scoping meeting (water availability). The Mayor stated that Victoria City has 20,000 acre-ft of water rights available from the Guadalupe River and only 12,000 acre-ft is used a year (of which about 40 percent goes back into the river as treated water). The City also has rights for 10 deep wells of reserve water and each could cover water needs for a year. The Mayor also indicated that the City has acquired an additional 7,000 acre-ft for future demand. The City is also acquiring former quarries, which have filled with water, and plans to connect them to each other as an additional back-up water supply. The City can drill more wells and buy more water rights if needed. He estimated that the City has enough water to meet its needs for the next 40-60 years. The City has invested \$35 million to upgrade its water plant. This is the exact same description the Mayor gave at the scoping meeting.

When asked about subsistence activities, the Mayor indicated that he did not know of any but there is a large sport fishing industry along the coast in Port Lovaca, about 50 miles away, and some fishing occurs in the Barge Canal. Many locals also hunt recreationally. He also believed that there is a vibrant local shrimping industry and many oystermen down along the coast, which is consistent with knowledge from the South Texas Project EIS. The Mayor concluded that this is an, "affluent society down here."

## **Summary of the Meeting with Chief Deputy Sheriff Terry Simons, Victoria County, and Dan Massatti, Michael Purdie, and Greg Poremba:**

Sheriff Michael O'Connor was sick so we met instead with Chief Deputy Sheriff Terry Simons. The Deputy Sheriff first gave us a broad overview of his knowledge of the community. The "nighttime" population of Victoria City is slightly over 60,000 people, but the "daytime" population is between 200,000 and 250,000 people. The Deputy Sheriff then indicated that even though he was comfortable with the amount of resources at his disposal, there is still room for improvement. This is particularly true because of the economic boom that the area is experiencing with development of the Eagle Ford shale deposit, the Caterpillar plant, and sub-vendors. Due to the changing economy, there is also a lot of indirect construction occurring in the City, for out-of-town firms and small businesses, as a result of the shale gas play and the Caterpillar plant construction. He gave an example that Victoria is below the national average for the number of officers per 1,000 people.

He felt that they had good law enforcement and judicial resources. They are improving their emergency response capabilities. They have a FEMAT Type-1 SWAT Team rating, except for 3 categories (aerial fast-rope boarding, on-way boarding, and an EOD component). The proposed VCS site would be good because it would not be an easy-access area. He said that there is not much recreation occurring near the VCS plant site, no subsistence fishing, but some recreational hunting could be occurring there. The Deputy Sheriff believed having the heavy-haul road completely on-site with direct access to the Victoria County Navigation District transportation corridor near the Port would be a good choice for security reasons. The control area for the Barge Canal is good, and they will have a boat located in the canal.

The City has also built a new Emergency Response facility that is capable of sustaining 200 mph winds and has blast protection. That was a combined \$1.5 million city/county project. They had a millennium flood event in 1998, but it did not cause problems in the City of Victoria.

Criminals are primarily coming from outside of the City, from surrounding metropolitan areas and passing through. The problems that they have are finding qualified people to hire into the department. There are 156 sworn officers and 40 jailors. Officers work 12-hour shifts, putting in 14 days in every 28-day period (171 hours/month). The department has a \$12 million annual budget. He would need 15 more sworn officers to meet the national average/standard, and 12 more officers to meet the needs for the VCS project. There are typically 400 inmates in the local jail at any one time, but it has capacity for 535 inmates. The facility could be quickly expanded by another 200 beds, if needed, without having to build new facilities. The jail was built in 1985 and had over a \$1 million capital improvement in the past year. It costs the County about \$54 per day per inmate. He believes that even with the cumulative investments in the area and with the potential nuclear power plant units, that he has adequate resources at his disposal.

He said that housing was limited in the area. He had recently done a search for housing for his son, and only found 76 houses available for sale. He felt that spec houses would have to be built to meet the needs of the VCS workforce. He indicated that there might not be a "bust" after the VCS construction ended because of the additional manufacturing that might fill the void by then. He said that the County has strict laws to restrict the building of campgrounds and RV parks. He also stated the McFadden has

infrastructure that could accommodate work crews. He thought that most kids were staying in the area once they graduated from high school and after college because of the job opportunities available. He said that they have more private schools per capita than many areas, including three Catholics schools. It is a religiously conservative community.

He stated that the Port of Victoria is doubling its tonnage each year, and is in the top 10 of ports in Texas and the top 100 of ports in the United States. He also stated that there is a lot of trucking of materials through the county. Unfortunately, this trucking is also being used as a method to ship drugs. As an example, they found 400 kilograms of methamphetamines (crystal meth) in a truck during a traffic stop. As a result, his department focuses more on patrolling commercial traffic than private traffic. He anticipated that trucking levels would decrease because pipelines were being built and were ready to begin operation. In addition to the Eagle Ford deposit, they think there is an even larger deposit under the Eagle Ford, with 23,000 mmf.

They have some local street gang activity, and have an intelligence force to deal with them. The department is more concerned about the trans-national gang activities coming through the area. They do have a crystal meth lab problem, which the department is very pro-actively addressing. In 2009 they found 19 labs, and in 2011 they found 11 labs. He stated that because of their diligence, Victoria County has found more labs than any other county. These labs place a burden on the department because it costs \$10,000-19,000 to clean up each lab site.

The Deputy Sheriff said that first-year pay for an officer is \$54,000, jail staff earn \$3,000 less annually than patrolmen. 60 percent of their jail staff are also licensed patrolmen. In addition, the County spends \$40,000 equipping each officer, including one patrol car per officer. They have a total of 30 patrol officers, and 10 of them are working each shift. The average patrolman has eight years of experience on the job. They can hire new officers fairly quickly if they can find qualified applicants. They only accept trained/experienced law enforcement applicants or those with two tours of military experience. For each position they open, they receive 20-30 applicants. Each platoon has 2-3 training officers.

The discussion pivoted to his knowledge about the local fire/EMS units and the local hospitals. He said that they evacuate the area for anything above a Category 3 storm. By using some of their jail staff, they can quickly mobilize 60 patrolmen for emergencies. The City of Victoria has a full-time fire department and 11 volunteer companies, while the County has 14 volunteer companies. To his knowledge, the fire departments for the city and county are both well-equipped, some have EMS capabilities, and have a Memorandum of Understanding (MOU) in place for emergency response. The Deputy Sheriff also indicated that Victoria City has a very well-equipped hazmat team. There are 4 private ambulance companies that contract with the City, because the City EMS cannot always respond to all of the load. There is also an airport EMS component, which is required. With respect to the hospitals, the Deputy Sheriff indicated there are 3 hospitals in the county (DeTar, Victoria County, and Citizens Hospital). The hospitals are not overcrowded or understaffed, and he even indicated that there is good mental health infrastructure at the hospitals.

The City and County have upgraded their communications system. All safety staff can access this system. It is a 2-site Motorola 7-7 system, with 12 channels each. All units

are AES national security encrypted and they can do OTAR over-air rekeying to establish communications with their system. They have UHF and VHF communications capabilities, and can also communicate with ships. They also have a mobile command post that can house 20 operators, and it has a 60-foot antennae mast (rated at 180 mph). They can also communicate outside of the area with one T-1 line, and if that is out they can use satellite communication but that system operates a little more slowly. The State is not on their communications system, but it can be tied into it. The petroleum industry is tied into the Sheriff's communications system. The Chief Deputy is a FEMA Type Communications Leader.

The Victoria Airport has one 10,000-foot runway and a second runway. They get G3 air traffic (heavy wheel loads). The airport is used for student relicensing and refueling. There is also "a lot" of helicopter traffic there. The airport has a paid manager, and Judge Pozzi decides what changes will occur there. They are trying to get UAV (unmanned air vehicle) licensing for the facility to operate smaller (about 15-pound) aircraft for the Sheriff's tactical use.

When asked his opinion about potential county and city issues for the VCS project, the Deputy Sheriff stated that meeting additional fire department demands/needs "was a quick fix." There is no real petrochemical capacity downwind of the VCS site, so that should not pose a problem. He said that the Economic Development Corporation (EDC) coordinates with the Sheriff's Department on the growth that is likely to occur so that he can plan for the needed changes. But, he did state that housing is the issue in his opinion. Custom (spec) homes are being built to meet the Caterpillar plant housing needs, and there will likely be some future community developments built. However, he felt that people could just move into other counties nearby if enough housing is not available.

## **Tuesday, January 10, 2012**

### **Summary of the Meeting with local shareholders in the Victoria Economic Development Corporation Office:**

(Attendees: Dale Fowler, Victoria Economic Development Corporation; Charmelle Garrett, Victoria City Manager; Taner Drake, Victoria Fire Chief; Randy Vivian, President of the Victoria Chamber of Commerce; Gary Burns, County Commissioner of Precinct 3; Joe Brannan, Golden Crescent Regional Planning Commission; Robert Kirk, Citizens Medical Center; David Brown, Citizens Medical Center; William Blanchard, DeTar Healthcare System; Donald Day, Texas Glass and Tinting; and Dan Massatti, Michael Purdie, Pat Madden, and Greg Poremba)

The list of attendees at this meeting is with Greg Poremba. Pat Madden and Michael Purdie started this meeting off describing why we were there and then opened the floor for questions. The city manager, Charmelle Garrett, explained the City was gearing up for growth because of the Caterpillar manufacturing plant and the Eagle Ford shale gas play. Big housing developers are starting to come back to the area and the city may annex land on the north side of the city to accommodate additional growth. Ms. Garrett explained that there is a plan in place. The City is in good shape financially and has a AA bond rating. One hotel is under construction (next to the Super 8, off of Zac Lentz Highway), and two more (one with 80-100 rooms and the other with about 240 rooms, for a total of about 350 rooms) are in the permitting process.

Michael Purdie then brought up the potential issue of housing. Randy Vivian then stated that there is a 3.5-month inventory (under 300 units) of housing in the county, but all the counties around Victoria are expanding. Michael then asked if sprawl might ever be an issue and Randy stated that would not be the case. Mr. Vivian explained that housing prices wouldn't be an issue in the short term because Victoria never experienced a housing bubble like the rest of the country, and therefore there was no housing bubble burst.

Dale Fowler then pointed out the Texas A&M University study that the Mayor had discussed, that large developers were again showing interest in constructing housing there, and that Victoria City is the center of the "7-county" region. Workers from Gonzales, Jackson, DeWitt, Goliad, Refugio, Victoria counties (and maybe Calhoun County) and other surrounding areas were coming to Victoria to work. Refugio is excited about development of the VCS project.

Joe Brannon said that the local economy only had about a 1-year decline, compared to the rest of the United States. The housing prices only declined by about 2-3 percent as a result of subprime mortgages, because subprime loans only made up about 1-2 percent of the local mortgages. He then continued on the theme Ms. Garrett had discussed with respect to the big housing developers returning. He said that, overall there was a lot of development in the county in the past 3 years, and that lots of new hotels were being developed in the surrounding cities and counties. He then used the term "comfortable" to describe the present housing situation and future outlook. Mr. Brannon then discussed the 20 years or so of Eagle Ford shale gas available, and the newly-discovered Pearsall deposits that are located under the Eagle Ford shale deposit, which he believes could be economical to capture in the next 5-10 years. These projects provide work opportunities for pipelines, well drillers, and trucking. DuPont is implementing a \$250 million, 5-year upgrade to their plant. Mr. Brannon also discussed the hotels being built in other counties. He stated that Cuero will be building two hotels and has a new 4-story corporate building, Gonzales will be building two or three hotels, and Yoakum and Goliad will both be building a hotel because of the natural gas drilling workforce.

The conversation then pivoted towards rent prices. Gary Burns indicated that rental prices were up 15 percent or so with his 75 properties. However, he indicated that it is getting more difficult to obtain financing but that "deals are still out there."

The conversation then turned towards the local fire/EMS departments and hospitals. Taner Drake, the new fire chief, indicated that he was still new and not quite up-to-date. He believed, however, that they will be ready. The City of Victoria provides fire services to the entire county, and is supported by 11 volunteer fire departments. He pointed towards the increased hazmat capabilities with the receipt of a large AFG grant, and the new Emergency Operations Center (EOC). He had more experience with respect to Texas' overall response and the state could have ambulances and first responders anywhere within 1-2 hours if local responders were overloaded. They are part of Public Health Region 8, which has a nuclear expert, and can pull in additional resources from San Antonio (their primary backup) to treat up to 100 people within 1 hour of a request for aid. They have emptied the hospitals twice in the last 5 years in response to natural emergencies, and so they have pretty good procedures for doing that. The City and County are used to responding to petro-chemical, weather, and other "massive" events. The City and the County share the Emergency Management office and work really well

together. Each of the 3 hospitals has an emergency room and there are 2 trauma centers. He stated that the department would need to build up its services to address the VCS plant and reach out to that site. The hospitals would rely upon Exelon as experts/leaders for nuclear incidences, and local emergency services would follow their lead.

Dave Brown indicated that the regional response was good (part of Public Health Region 8, which includes Victoria and San Antonio).

Robbie Kirk indicated that the hospitals don't have any concerns; they have had emergency drills with San Antonio because of the large military presence there. However, they will rely on Exelon for the radiological emergency response knowledge and training, and will follow their lead. He also stated that Exelon's capabilities would add to the existing radiological response capabilities in the area. The hospitals are a little over-sized for the needed services.

In summary, the local shareholders believed sewer/water, schools, police, fire/EMS, hospitals, and housing are well-prepared. They believed the roads may need some improvements, but it is a "good problem to have" and is very manageable. Most of the City's growth has been to the north, and not out toward the proposed VCS plant site.

We left the meeting with a map, the Hazardous Materials Commodity Flow Study (Texas Transportation Institute, December 2009), and the Swearingen Report (Ron Brown Company – Caldwell Banker, September 2011).

**Summary of the Meeting with County Judge Donald R. Pozzi, and Dan Massatti, Michael Purdie, Pat Madden, and Greg Poremba:**

Judge Pozzi began with his views of the relationship with Exelon. He indicated that they had been a good partner, very proactive. When asked about any concerns (especially water because he knew before the scoping meeting that water availability would come up), Judge Pozzi was satisfied with the amount of water in the county. He said that the Guadalupe-Blanco River Authority (GBRA) says that there is enough water, and he believes them.

Dan Mussatti then asked Judge Pozzi about any environmental justice issues. There were none that Judge Pozzi was aware of, and he didn't believe any subsistence activities were occurring, although there might be some wealthy people occasionally sport hunting in the area. Although there were some concentrations of minorities in southern Victoria by Water Street and in the McFadden area, he did not think that there would be EJ concerns out there.

Michael Purdie then asked about housing and growth. Judge Pozzi understood our concern because of the statistics, but he believed that the "County will do what is has to do" and the County is well prepared for the future housing and hotel/motel availability. Michael then asked where he would move into this region, to get an idea of where most operations workers would move, and Judge Pozzi stated Victoria because of the amenities. The Judge indicated that a \$168 million bond was used to construct two new high schools, two new middle schools, three new elementary schools, and one fine arts school. The schools are very good and have good training programs. There is Victoria Junior College and the University of Victoria-Houston available. Judge Pozzi then

indicated that the power block would be in the “property-wealthy” Refugio ISD and not “property-poor” Victoria ISD. He wasn’t worried about this because the Victoria ISD will receive most of the students and therefore much more educational resources from the State.

He felt the VCS project would benefit Victoria County and surrounding counties. He stated that unemployment was at about 5.8 percent or at least under 6 percent. From 2000 to 2010, the area grew by 2,600 people and the County has less than 87,000 people. The area had somewhat challenging economic and fiscal challenges during part of 2008, 2009 and 2010. He said that the minority population was growing in the county, and represented 42-46 percent in the MSA. They project that there will be a “lot” growth in future retail, hotel, manufacturing, and secondary manufacturing.

The Sheriff’s Department has an annual budget of \$12 million, and the budget is based on the calendar year. They will be opening a new, state-of-the-art Emergency Operations Facility in January 2012.

**Summary of the Meeting with Jennifer Stastny, Executive Director of the Port of Victoria, and Dan Massatti, Michael Purdie, Pat Madden, and Greg Poremba:**

Dale Fowler of the Victoria Economic Development Corporation set up a meeting with Jennifer Stastny at the Port of Victoria. Ms. Stastny indicated that the Port has approximately 11 barges a day, however, it is under-utilized. In the past, it has handled as many as 15 barges per day. She stated that the Port could handle 15-18 barges a day in the future. It takes about 4-6 hours to travel from the mouth of the canal to the Port. The port mostly ships sand/gravel mixtures (not for fracking but for roads/bridges) by barge and railroad, oil (with a typical barge carrying 30,000 barrels), and gas. The Port is barging in fracking sand.

The Port is expanding and creating a new area called a “fleeting area,” south of the Invista Plant and on the eastern part of the barge canal. She said the fleeting area will basically, “be a parking lot for barges.” This fleeting area will occupy about 1,800 acres, will be created by widening the canal by 200 feet, and will be developed in the “next couple of months” (they already have a Corps of Engineers Permit).

The Port also just received approval from the State Legislature to build a heavy-haul road to the Caterpillar manufacturing plant. Two railroads also access the site, the Texas & New Orleans RR which traverses northwest to southeast from Victoria to Clarks and Port Lavaca, and the Missouri Pacific RR that traverses northeast to southwest to just south of the VSC site. Both railroads use Union Pacific tracks to run on. These rail lines have remaining capacity and would like to transport more products.

When asked if she had any concerns with the potential nuclear power plant units nearby, Ms. Stastny explained that she had no concerns with heavy equipment being brought up the barge canal and no problems with the nearby rail infrastructure.

### **Summary of the Victoria Metropolitan Planning Organization Policy Advisory Committee Meeting, and Dan Massatti and Michael Purdie:**

Dan Mussatti and Michael Purdie attended a public meeting with the Victoria MPO. All of the local officials were there that were on the advisory committee, except for Judge Pozzi. Dan gave some remarks on the record as to our purpose there. The meeting lasted approximately 30 minutes and Dale Fowler (Economic Development Corporation) gave us a copy of the meeting purpose and notes. We were able to entertain some questions afterwards. The Texas DOT engineer, Lonnie Gregorcyk, indicated Highway 77 near the proposed Victoria County Station site had a Level of Service grade of C. To maintain this LOS with VCS construction traffic on the road would require an estimated \$20 million overpass to be built for the site entrance. This estimate was an off-the-cuff estimate.

### **Summary of the Meeting with Jeb Brian Lacey, Emergency Management Coordinator, and Pat Madden and Greg Poremba:**

Pat Madden and Greg Poremba attended the meeting with Jeb Lacey at the Emergency Operations Center (EOC). They had started to develop an Emergency Response Plan (ERP) in 2008, taking into account the Exelon COL Application. Exelon did not contribute to that plan, but the plant proposal facilitated development of the EOC in partial anticipation of its construction. Hurricane Claudit was an H-4 class that struck in 2005, and also provided impetus to prepare the ERP.

The area is seeing increased demand for electricity because the technology industry is moving into Texas from the western U.S. In addition, the area experienced major freezes last winter, significantly increasing electric demand while four generation facilities went off-line, resulting in a brownout in the Corpus Christi and Victoria area.

Emergency Management reports to the City Manager and Mayor as a stand-alone department. They conduct planning and liaison activities with other departments. The Department obtained a \$1 million Federal Emergency Management Agency (FEMA) grant and was able to acquire another \$1 million to develop the new EOC. It is a combined city/county facility.

They have a strong partnership with area businesses to respond to emergencies, called the "Victoria Partners in Preparedness" program. This has resulted in very good communications with area businesses, manufacturing, and utilities. As part of this, the Department has a formal process and has set up groups with businesses to use their equipment and resources for recovery from emergency events. They team with local business leaders to talk with incoming businesses, outside resources, not-for-profit organizations, and veterinarians. They are autonomous units that can meet independently of the EM department.

The Annex W to the ERP was developed in 2008-2009, went to FEMA for approval, and was accepted. The Annex W won't be revised again until 2014. Their ERP is revised every 5 years. They are currently in a revision cycle, so most Annexes will have been revised in 2011 or will be in 2012.

EM does not use the HC toolkit, but the department does HC-compliant emergency exercises. An Emergency Management Preparedness Grant from FEMA funds part of

those exercises. The Department conducts two exercises each year; one is a full or functional scale exercise.

He felt that regional communications could be improved some more. The Golden Crescent Planning Commission includes a 7-county area with about 155,000 people (so about half are in Victoria County). Many of the counties in this area are still using VHF and analog radios, whereas Victoria has used 800meganertz radios since 2000 or earlier.

Victoria, Texas has the only hazmat team (Number 3) between the city and Corpus Christi, Texas. A Commodity Flow Study was conducted at the end of 2011, to evaluate the transport of hazardous materials through the County. It found that about 9,000 railcars of anhydrous ammonia are transported through the county in a year. In 1990, there was a Formosa fire that had railcar issue, and they responded well to that event.

The City has two 911 systems. The primary system is owned by the City of Victoria, is digital, narrow-band, and a trunked system located at 702 Main Street. All police and fire calls for the City and the County go through this facility. The secondary system is located at the Sheriff's office, and is used for all non-fire calls/responses. All people are alerted through tones on telephones. There is an Interlocal Agreement between the City and the County. The City of Victoria fire department responds to all fires in the County. In the County, only emergency response at the airport was a paid fire department.

The new EOC has five computer-aided dispatch (CAD) systems. At the end of the discussions, Mr. Lacey provided us a tour of the new EOC facility.

### **Wednesday, January 11, 2012**

#### **Summary of the Meeting with Exelon, and Dan Massatti, Michael Purdie, Pat Madden, and Greg Poremba:**

Greg Poremba went over some of the specifics with respect to potential taxes. Greg also discussed the potential for workforce distribution estimates using a gravitational model. Michael Purdie also pointed out that if Exelon wanted a real world example, they could use the workforce distribution from the construction of the new Caterpillar plant or the Eagle Ford shale gas workers. We also discussed the Refugio Hispanic Census Block Group, located south of the VCS site along the east side of Highway 77. Greg and Michael made a point to drive by that census block group after the meeting (see below). Exelon indicated that they will need to regroup because of the new information that has come out since ER Rev. 0 was docketed.

#### **Afternoon Field Trip Activities:**

After the Exelon meeting, Greg and Michael drove to Refugio and back to see if there were any pathways for traffic impacts for the Refugio Hispanic Census Block Group. There did not appear to be any. The highway runs through open land with few points of access along the eastern side of the highway, where the census block group exists.

Greg and Michael also drove to McFadden and Refugio to observe those communities. McFadden appeared to have about eight occupied single-family residences, a post

office, and a small school building. Refugio is a smaller town than Victoria and is in the center of Refugio County.

### **Summary of the Meeting with the African-American Chamber of Commerce:**

(Attendees: Roslyn M. Murphy, Family Endeavors; Matthew J. Gaskin, Crossroads Professional Details; Ricky Mumphord, Mumphord's Place, Moses Moore, Charles Green, and Dan Massatti, Michael Purdie, Pat Madden, and Greg Poremba)

The stakeholders that attended this meeting indicated that the housing market was tight with respect to supply; however, there are areas open for housing and are being developed. Rental prices were increasing to almost unaffordable levels for veterans, however. Rentals have increased from \$400-500 a month to \$1,000/month in the County. This is substantially the result of construction of the Caterpillar plant and the fracking operations. There are 2-3 apartment complexes being built or planned.

Although most jobs are going to outside residents, there appeared to be plenty of jobs available for local residents. A lot of young veterans returning from Iraq are working in the fracking fields. There are plenty of programs for training the "under-trained." One example is the job training programs for employing people in the oil fields. They would like programs to put people to work for the VCS project. The City has a Workforce Center for listing jobs, jobs are also posted in area churches, they have work fairs, and they go to the schools to tell the older children about the available jobs.

They voiced concerns about educating the children. They said that the kids leave for school, or other locations, and don't return because there aren't enough good-paying jobs. There also need to be more entertainment and activities geared towards younger people to help retain them in the area.

When asked about EJ populations, they had no concerns. When asked about subsistence uses, the local stakeholders did not know of any real subsistence use occurring. They also indicated that there was recreational fishing at the Port of Lavaca, and that there was some guided fishing and hunting. There also was some gardening occurring (there is a Garden Club in the City), and some folks do some canning. In the past they had a situation where there was an abnormally high thyroid cancer rate, at the Woodhigh Community about 5 miles from the City, as a result of the releases from "a lot of chemical plants."

As far as concerns with respect to the EIS, the local stakeholders indicated that there needs to be some sort of workforce training for the potential VCS nuclear units. The majority of their concerns were centered around nuclear radiation releases, safety aspects of the plant, and spent fuel storage. They also suggested that it would be nice if Exelon had a model of a nuclear power plant, placed in a strategic location in the City, so that residents could look at it to better understand what the VCS facility would look like and how it would operate.

**Thursday, January 12, 2012**

**Summary of the Morning Meeting with Exelon, and Dan Massatti, Michael Purdie, and Greg Poremba:**

Greg Poremba, JT (the Exelon PM), and Michael Purdie created a path forward. It appeared that Exelon was ready to create an appendix to their ER specifically for re-baseline of Chapter 2.5 because of the new environment the potential plant would be in. Because Revision 1 was almost ready to go to the printer, this new appendix would have to be included in a future revision. They would then re-examine the impact levels and categories in Chapters 4 (construction) and 5 (operations) with the new baseline. They committed to talk to us in the future about the path forward.

**Afternoon Field Trip Activities:**

Greg Poremba and Michael Purdie then drove to the alternative sites in Matagorda County, Texas. We were able to drive right by the VCS Bravo site (near STP) and as close as possible to the VCS Matagorda site. We drove down to the town of Palacios. Because the Mayor and a local stakeholder in the African-American Chamber of Commerce indicated that the heavy industry near Point Comfort and Port Lavaca, Greg and Michael drove there to get a feel for the industrial activities down there. There is a very large heavy plastics activity in Point Comfort and Alcoa has a sizeable presence in the larger town of Port Lavaca. Both of these will need to be taken into account in the EIS.

**Site Audit Meeting Potential ER Revision Responsibilities  
Socioeconomics and EJ**

**January 12, 2012**

<b>Section</b>	<b>NRC</b>	<b>Exelon</b>
<b>General</b>		Maybe do a supplement/appendix to the ER (Appendix B?), to update/add to what is already in the ER.
		Post calculation packages to Reading Room – Socioeconomics ROI Analysis, Section 4.4.2, and 5.8.2 (example: demography, transient populations, calculations of impacts, etc.)
		Post the Texas Parks and Wildlife Department (Nov 2001). <i>Texas Parks and Wildlife For the 21<sup>st</sup> Century</i> to the Reading Room.
	We update old data from newly updated reports/numbers; example - Census data, BLS data, BEA data, cbg data.	
<b>2.5.1 Demography</b>	The EIS will present 2010 population data, and will update projections to 2080.	Collect/use 2010 population data (if it's needed for consistency with updating Section 2.5.2 and other sections).
	Wages – go from 2006 and escalate to 2010.	
		Transient populations should be updated to included shale oil fracking workers, Invista plant expansion, Caterpillar new plant/facility, and other major projects in the ROI and 8-county area.
		Update rental (house, hotel/motel) and seasonal market availability and costs.
<b>2.5.2 Community Characteristics</b>		

<b>2.5.2.1 Economy</b>	We update it old data from newly update reports/numbers, ex BLS data	Update employment characteristics to recognize new local conditions with BLS, BEA, and local information for the county; including new employer (shale oil fracking workers, Invista, and Caterpillar) characteristics for the county.
<b>2.5.2.2 Transportation</b>		Please double-check numbers to make sure that all data is still accurate, including ongoing changes at the Port of Victoria. Add LOS to Table 2.5.2-7, Road Characteristics and Traffic Statistics, and a description to the narrative.
<b>2.5.2.3 Taxes</b>		Please describe Victoria ISD's "property-poor" (Chapter 42) status.
<b>2.5.2.4 Land Use</b>		No comments.
<b>2.5.2.5 Aesthetics and Recreation</b>		Are City and County recreational facility and area use and availability data available, if so describe them. If not, indicate jurisdictions where acres/1,000 population do not meet the standard selected.
<b>2.5.2.6 Housing</b>		Update house and rental (house, hotel/motel) market availability and costs.
<b>2.5.2.7 Public Services and Community Infrastructure</b>		Update with latest City of Victoria infrastructure improvements (water, sewer, and other). Potentially add in water rights capacities discussion. Add in discussion about the new Emergency Management Center, communications system, etc.
<b>2.5.2.8 Schools</b>		Add new information about 2 high schools, 2 middle schools, and 3 elementary schools that have been added to the Victoria ISD in the past few years. Update ISD information for all

		ROI counties and school districts? Confirm in which ISD the power block is located (it's in Refugio ISD).
<b>2.5.4 Environmental Justice</b>		Update CBGs data along, with the demography data.
<b>4.4.2 Social and Economic Impacts (construction)</b>		Provide more support for the 95 percent in-migration assumption, some additional narrative to support the statement. Check on the \$2 billion construction cost value for one unit, maybe put in a range of costs. Please double-check tax impacts calculations, add estimate of work property tax. contributions, and add footnotes or revise titles as appropriate to facilitate understanding of jurisdiction addressed by the presented data. Use a gravity model or interviews with existing local business(es) to identify where the construction workforce would likely reside within each county in the ROI. Re-evaluate impacts as needed based upon that analysis. Add-in, as appropriate potential mitigation for any housing shortfalls, traffic (\$20-30 million overpass versus proposed turn lanes), and other notable impacts. Add-in discussion about mitigation planning for recreation.
		For chapters 4 and 5 see note below***.
<b>4.4.3 Environmental Justice (construction)</b>		Add some discussion about the potential minority EJ impacts from Highway 77 bordering the Hispanic CBG, and potential

		impacts from traffic congestion and accidents.
<b>5.8.2 Socioeconomics (operation)</b>		Use a gravity model or interviews with existing local business(es) to identify where the operation workforce would likely reside within each county in the ROI. Re-evaluate impacts as needed based upon that analysis. Add-in, as appropriate potential mitigation for any housing shortfalls, traffic (\$20-30 million overpass versus the proposed turn lanes), and other notable impacts. Add-in discussion about mitigation planning for recreation.
<b>5.8.2 Environmental Justice (operation)</b>		Add some discussion about the potential minority EJ impacts from Highway 77 bordering the Hispanic CBG, and potential impacts from traffic congestion and accidents.
<b>5.11.4 Cumulative Impacts - Socioeconomics</b>		Add in discussions/evaluations of past, present, and reasonably foreseeable future projects (call Dale Fowler, EDC, for more info as needed), including: shale oil play frac'ing within the ROI, Caterpillar Plant, Dupont Invista plant expansion project, Port Authority Fleeting area expansion, Port Comfort Plastics Plant, and the STP nuclear power plant.

\*\*\*Brief guidance for Chapters 4 and 5. After doing re-baseline of Chapter 2, please analyze the updated information provided, with respect to the impact levels within each subsection. If the impact levels (SMALL, MODERATE, LARGE) have changed or not, please give a brief description about what has changed and provide the basis for the new impact level rating. Also, provide data calculation packages to the Exelon Reading Room. Please take serious account of the amount of other major projects within the ROI when doing your cumulative impacts analysis.