LIST OF EXHIBITS TO TEXANS FOR A SOUND ENERGY POLICY'S PETITION TO HOLD DOCKETING DECISION AND/OR HEARING NOTICE FOR VICTORIA COMBINED LICENSE APPLICATION IN ABEYANCE PENDING COMPLETION OF RULEMAKING ON DESIGN CERTIFICATION APPLICATION FOR ECONOMICALLY SIMPLIFIED BOILING WATER REACTOR

Exhibit 1: New Reactor Licensing Schedule Chart (accessed on November 3, 2008 at http://www.nrc.gov/reactors/new-reactors/new-licensing-files/new-rx-licensing-app-legend.pdf)

Exhibit 2: NRC's Application Review Schedule for the Victoria COLA (accessed on November 3, 2008 at http://www.nrc.gov/reactors/new-reactors/col/victoria.html)

Exhibit 3: Declaration of Ralph R. Gilster, III in Support of Texans for a Sound Energy Policy's Motion to Hold Docketing of Victoria COLA in Abeyance (October 29, 2008)

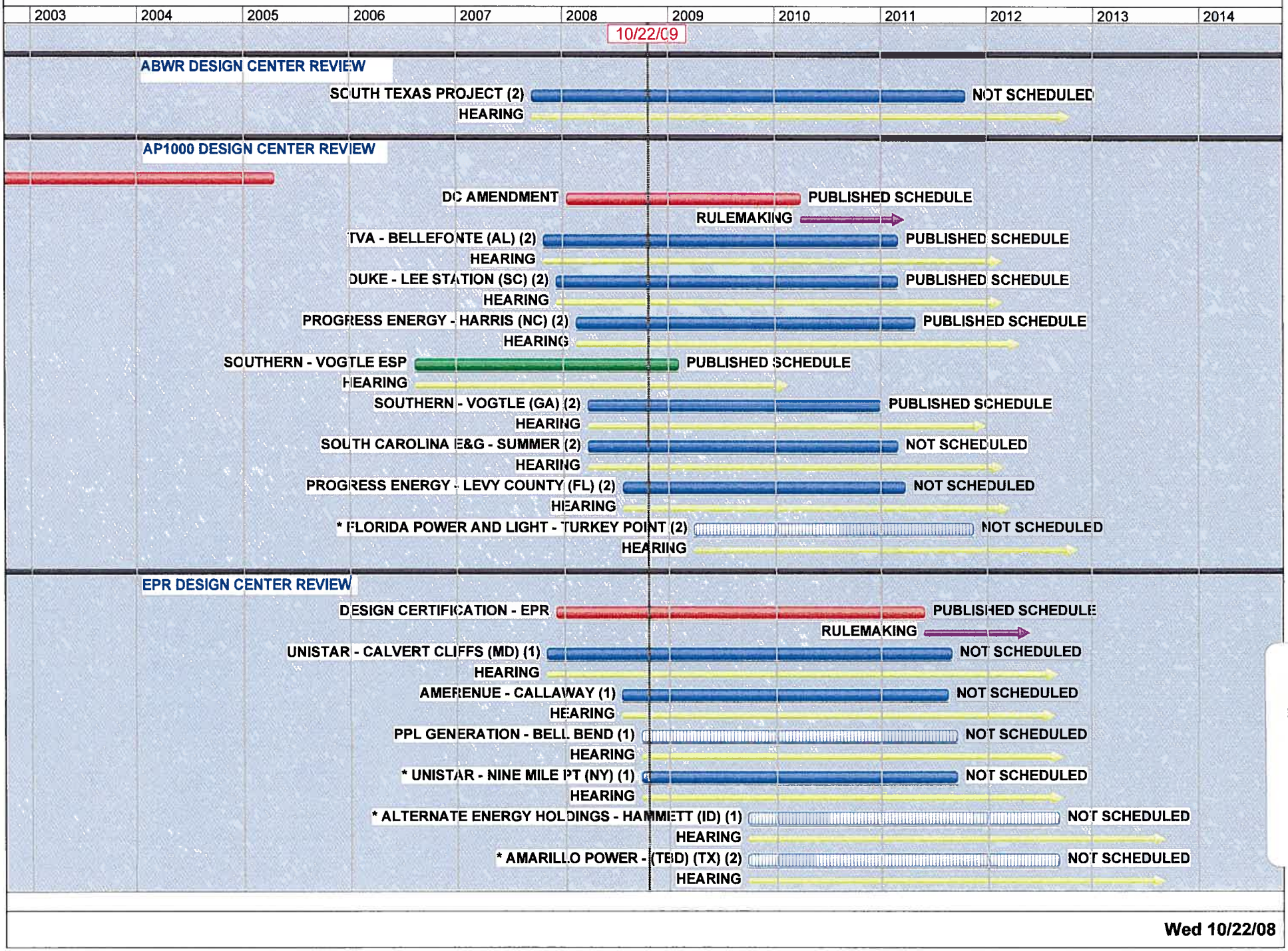
Exhibit 4: Declaration of Michael S. Anderson in Support of Texans for a Sound Energy Policy's Motion to Hold Docketing of Victoria COLA in Abeyance (October 29, 2008)

Exhibit 5: GE-Hitachi Nuclear Energy ESBWR Fact Sheet, (accessed on November 3, 2008 at http://ge.ecomagination.com/site/downloads/esbw/ESBWR2007Fact_Sheet_Final.pdf)

Exhibit 6: Expert Declaration of Dr. Edwin S. Lyman in Support of Texans for a Sound Energy Policy's Petition to Hold Docketing Decision and/or Hearing Notice for Victoria Combined License Application in Abeyance (October 31, 2008)

New Reactor Licensing Applications

Schedules by Calendar Year

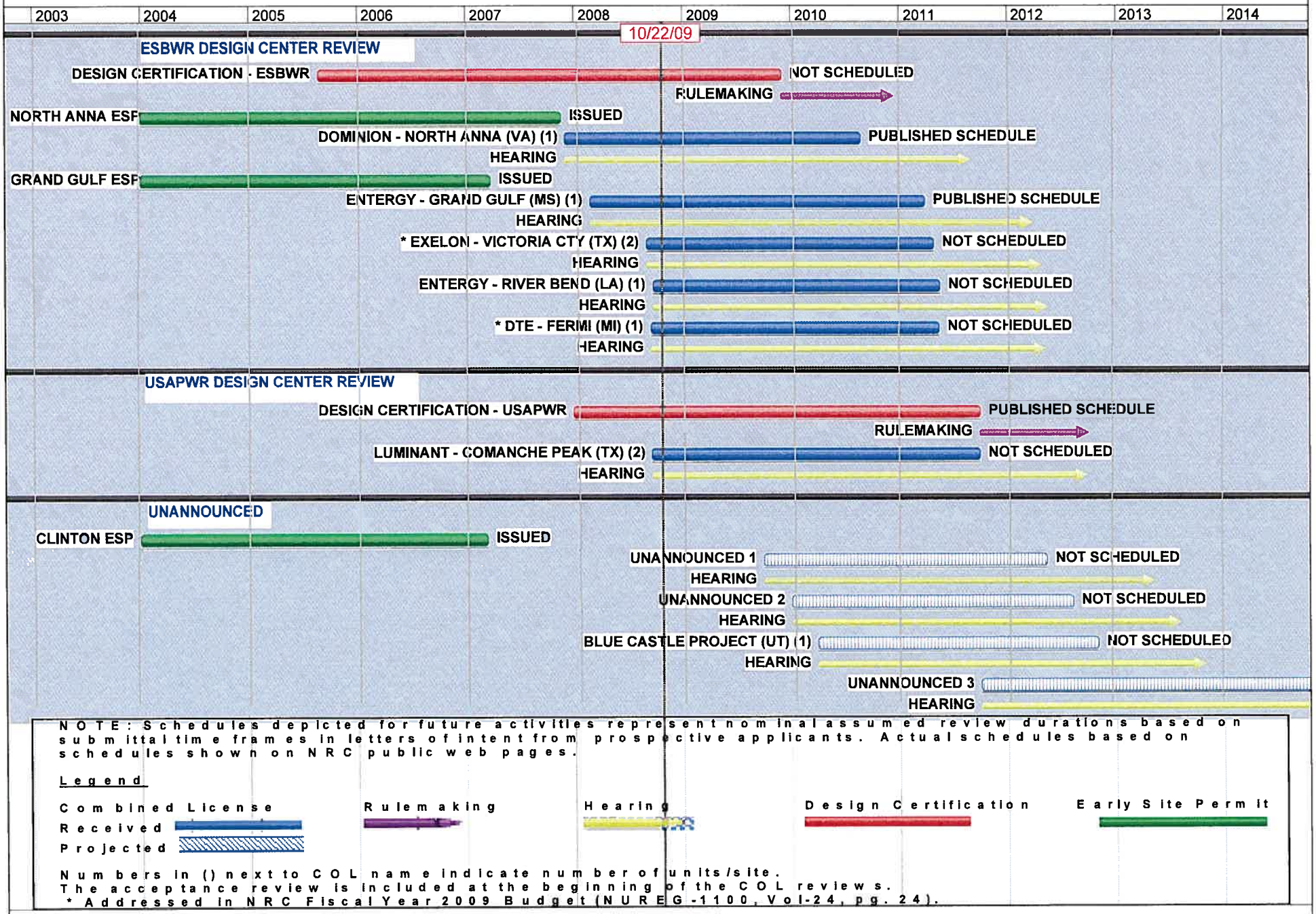


Wed 10/22/08

Exhibit 1

New Reactor Licensing Applications

Schedules by Calendar Year



NOTE: Schedules depicted for future activities represent nominal assumed review durations based on submittal time frames in letters of intent from prospective applicants. Actual schedules based on schedules shown on NRC public web pages.

Legend

Combined License
Received
Projected

Rulemaking

Hearing

Design Certification

Early Site Permit

Numbers in () next to COL name indicate number of units/site.
The acceptance review is included at the beginning of the COL reviews.
* Addressed in NRC Fiscal Year 2009 Budget (NUREG-1100, Vol-24, pg. 24).

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Exhibit 2

Combined License Applications for New Reactors

Location of Projected New Nuclear Power Reactors

Applications Received

Bell Bend Unit 1

Bellefonte Units 3 & 4

Callaway Unit 2

Calvert Cliffs Unit 3

Comanche Peak Units 3 & 4

Fermi Unit 3

Grand Gulf Unit 3

Levy County Units 1 & 2

Nine Mile Point Unit 3

North Anna Unit 3

River Bend Station Unit 3

Shearon Harris Units 2 & 3

South Texas Project Units 3 & 4

Victoria County Station Units 1 & 2

Virgil C. Summer Units 2 & 3

Vogtle Units 3 & 4

William States Lee III Units 1 & 2

Home > Nuclear Reactors > New Reactors > Combined License Applications > Victoria County Station, Units 1 and 2 Application

Victoria County Station, Units 1 and 2 Application

Who: Exelon Nuclear Texas Holdings, LLC (Exelon)

What: Application for a combined license (COL) for two Economic Simplified Boiling Water Reactors (ESBWR) designated as Victoria County Station, Units 1 and 2

When: September 3, 2008 (date of application submittal)

Where: Exelon's Victoria County Station site near Victoria City in Victoria County, Texas

On this page:

The following links on this page are to documents in our Agencywide Documents Access and Management System (ADAMS). ADAMS documents are provided in either Adobe Portable Document Format (PDF) or Tagged Image File Format (TIFF). To obtain free viewers for displaying these formats, see our Plugins, Viewers, and Other Tools. If you have problems with viewing or printing documents from ADAMS, please contact the Public Document Room staff.

Reference Documents

- ESBWR DCD - Revision 4

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Applicant Documents

Some combined license applications were submitted with hyperlinks to various reference documents. Currently, the hyperlinks in those applications are not active. These hyperlinks represent an advanced feature that could be activated when the agency upgrades to web-based ADAMS, at which point these applications and documents such as the Design Control Documents would be linked together. In the interim, and for those applications that do not have the hyperlink feature, the reference documents may be viewed under the Reference Documents section of the combined license application page. In addition, DVDs of the various documents are available by contacting the Public Document Room staff.

Date	Description
09/23/08	Submittal of Meteorological Data in Support of Combined License Application
09/02/08	Exelon transmittal letter for Victoria County Station COLA

	• Part 1 - General and Administrative Information • Part 2 - Final Safety Analysis Report (FSAR) • Part 3 - Environmental Report • Part 4 - Technical Specifications • Part 5 - Emergency Plan • Part 6 - [Part not used in this application] • Part 7 - Departures (Variances, Supplemental Information) from the ESBWR Design Control Document (DCD) • Part 8 - [This Part contains safeguards information which is with-held from public availability] • Part 9 - [This Part contains other information which is with-held from public availability] • Part 10 - Tier 1/Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) • Part 11- Enclosures

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Application Review Schedule

Key Milestones	Completion Date Actual - A Target - T
Application Tendered	
Acceptance Review	
Acceptance Review Start	09/04/08 - A
Docketing Decision Letter Issued/Acceptance Review Complete	11/06/08 - T
Review Schedule Established/Schedule Letter Issued to Applicant	
Safety Review	
Phase 1 - Requests for Additional Information (RAIs) Issued to Applicant	
Phase 2 - SER with Open Items issued	
Phase 3 - ACRS Review of SER with Open Items Complete	
Phase 4 - Advanced SER with no Open Items Issued	
Phase 5 - ACRS Review of SER with no Open Items Complete	
Phase 6 - Final SER Issued	
Environmental Review	
Phase 1 - Environmental impact statement (EIS) summary report issued	
Phase 2 - Draft EIS issued to EPA	
Phase 3 - Response to public comments on draft EIS issued	
Phase 4 - Final EIS issued to EPA	
Hearing	
Commission or ASLB hold mandatory hearing	
License	
Commission decision on issuance of COL application	

Information on Federal Register Notices for receipt of the application and opportunity to request a hearing or petition to intervene can be found at NRC's Website on Hearing Opportunities.

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NRC Documents

Date	Description
09/24/08	Acknowledgement of Receipt of the Combined License Application for Victoria County Station, Units 1 and 2 and Federal Register Notice

TOP

Public Meetings

Date	Description
09/24/08	COLA Orientation/Technical Content Meeting • Meeting Notice
08/07/08	Public Outreach Meeting • Meeting Notice • Meeting Summary • Meeting Slides

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Contacts

Contacts for the Victoria County Station COL Application	
Safety Project Manager	Mark Tonacci
Environmental Project Manager	Paul Michalak
Contact a Public Affairs Officer	

TOP

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Friday, October 31, 2008

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

DECLARATION OF RALPH R. GILSTER, III IN SUPPORT OF TEXANS FOR A SOUND ENERGY POLICY'S MOTION TO HOLD DOCKETING OF VICTORIA COLA IN ABEYANCE

Under penalty of perjury, I, Ralph R. Gilster, III, declare as follows:

1. I and several of my business entities are members in good standing of Texans for a Sound Energy Policy ("TSEP"). My address is One O'Connor Plaza, Suite 1100, Victoria, Texas 77901-6549.
2. I am the sole owner and manager of RRG3 SM Land LLC, a Texas Limited Liability Company. RRG3 SM Land LLC is the general partner of KOC Land, LP, the owner of a tract of approximately 38,625 acres of land situated in Refugio County, Texas, and known and referred to as the "Thos. O'Connor River Ranch". Portions of the said Thos. O'Connor River Ranch are located within 5 miles of the site of a proposed new nuclear plant for which Exelon Corporation ("Exelon") has submitted a combined construction permit and operating license application ("COLA") to the U.S. Nuclear Regulatory Commission ("NRC" or "Commission"). The said Thos. O'Connor River Ranch is more definitively described as all of that tract of land described in a Deed dated effective December 31, 2007, and of record in Volume 210 at Page 454 of the Official Records of Refugio County, Texas. I spend much of my time on this property and maintain a residence there. It is a source of income for my family and me. Through my business operations on this ranch, we have several employees who both live and work on this land that is proximate to the proposed nuclear plant.
3. I am concerned that if the NRC grants Exelon's COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety, the integrity of the environment of this land that I deeply care for and the ability of my family and me to continue to use and enjoy this property. I am particularly concerned about the risk of accidental releases of radioactive material to the environment, and the potential harm to groundwater supplies and local surface waters as well as more general interference with our business operations.
4. In order to ensure that the licensing decision for the proposed Victoria nuclear power plant protects my interests in a safe and healthful environment, I have authorized TSEP to represent me in any licensing proceeding and/or related rulemaking proceeding that concerns the safety and environmental impacts of the proposed nuclear power plant in Victoria. I have also authorized TSEP to take any legal actions that are necessary to ensure that the licensing proceeding and the rulemaking proceeding are conducted fairly, efficiently, and in a manner that provides for the full consideration of all licensing issues that could affect my safety and the health of my environment.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my best judgment.

RALPH R. GILSTER, III

10-29-08
Date

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Exhibit 4

BEFORE THE COMMISSION

DECLARATION OF MICHAEL S. ANDERSON IN SUPPORT OF TEXANS FOR A SOUND ENERGY POLICY'S MOTION TO HOLD DOCKETING OF VICTORIA COLA IN ABEYANCE

Under penalty of perjury, I, Michael S. Anderson, declare as follows:

1. I and several of my family's business operations are members in good standing of Texans for a Sound Energy Policy ("TSEP"). My address is P. O. Box 2549, Victoria, TX 77902.
2. I am president of the general partner of Martin O'Connor Ranch, LTD that owns a relatively large parcel of ranchland adjacent to the site of a proposed new nuclear plant for which Exelon Corporation ("Exelon") has submitted a combined construction permit and operating license application ("COLA") to the U.S. Nuclear Regulatory Commission ("NRC" or "Commission"). I spend much of my time on this property and our family maintains several residences there. It is a source of income for my family and me. Through our business operations on this ranch, we have twenty ranch employees some of which live on this land that is proximate to the proposed nuclear plant.
3. I am concerned that if the NRC grants Exelon's COLA, the construction and operation of the proposed nuclear power plant could adversely affect my health and safety, the integrity of the environment of this land that I deeply care for and the ability of my family and me to continue to use and enjoy this property. I am particularly concerned about the risk of accidental releases of radioactive material to the environment, and the potential harm to groundwater supplies and local surface waters as well as more general interference with our business operations.
4. In order to ensure that the licensing decision for the proposed Victoria nuclear power plant protects my interests in a safe and healthful environment, I have authorized TSEP to represent me in any licensing proceeding and/or related rulemaking proceeding that concerns the safety and environmental impacts of the proposed nuclear power plant in Victoria. I have also authorized TSEP to take any legal actions that are necessary to ensure that the licensing proceeding and the rulemaking proceeding are conducted fairly, efficiently, and in a manner that provides for the full consideration of all licensing issues that could affect my safety and the health of my environment.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my best judgment.

Michael S. Anderson

10/29/08

Date

Exhibit 5

GE Hitachi
Nuclear Energy

ESBWR

fact sheet

Elegantly Simple, Standardized, Flexible, and Economical

GE Hitachi Nuclear Energy's (GEH) next evolution of advanced Boiling Water Reactor (BWR) technology is the ESBWR. This simplified design provides improved safety; excellent economics; better plant security; a broad seismic design envelope; and operational flexibility that increases plant availability.

ESBWR is the latest in a long line of proven GEH BWR reactors. ESBWR employs passive safety design features. It is a simplified reactor design, allowing faster construction and lower costs.

A GEH-designed Gen III+ reactor, ESBWR is currently in the U.S. Design Certification process. The Design Control Document was docketed by the NRC in 2005, which along with Construction and Operating License (COL) submissions in 2007 will support the commercial operation of new ESBWRs by 2015.

GEH is ready to support utilities looking to build an ESBWR nuclear power plant, with a well-established global supply chain.

Benefits and Features of the ESBWR

- Simplified design
  - Residual heat transferred to the atmosphere
  - 11 systems eliminated from previous designs
  - 25 percent pumps, valves, and motors eliminated from previous designs
- Passive design features reduce the number of active systems, increasing safety
- Incorporation of features used in other operationally-proven BWRs, including passive containment cooling, isolation condensers, natural circulation, and debris-resistant fuel
- Expedited construction schedule due to pre-licensed design and standardized modules
- GEH offers an experienced team that is supply chain qualified, with a referenced construction schedule (first concrete to first load) of 36 months

ESBWR Quick Facts

- COD – 2015
- Referenced construction schedule of 36 months
- One ESBWR, replacing the same amount of electricity generated in the U.S. through traditional sources, would reduce greenhouse gas emissions by an amount equivalent to taking 1.5 million cars off the road

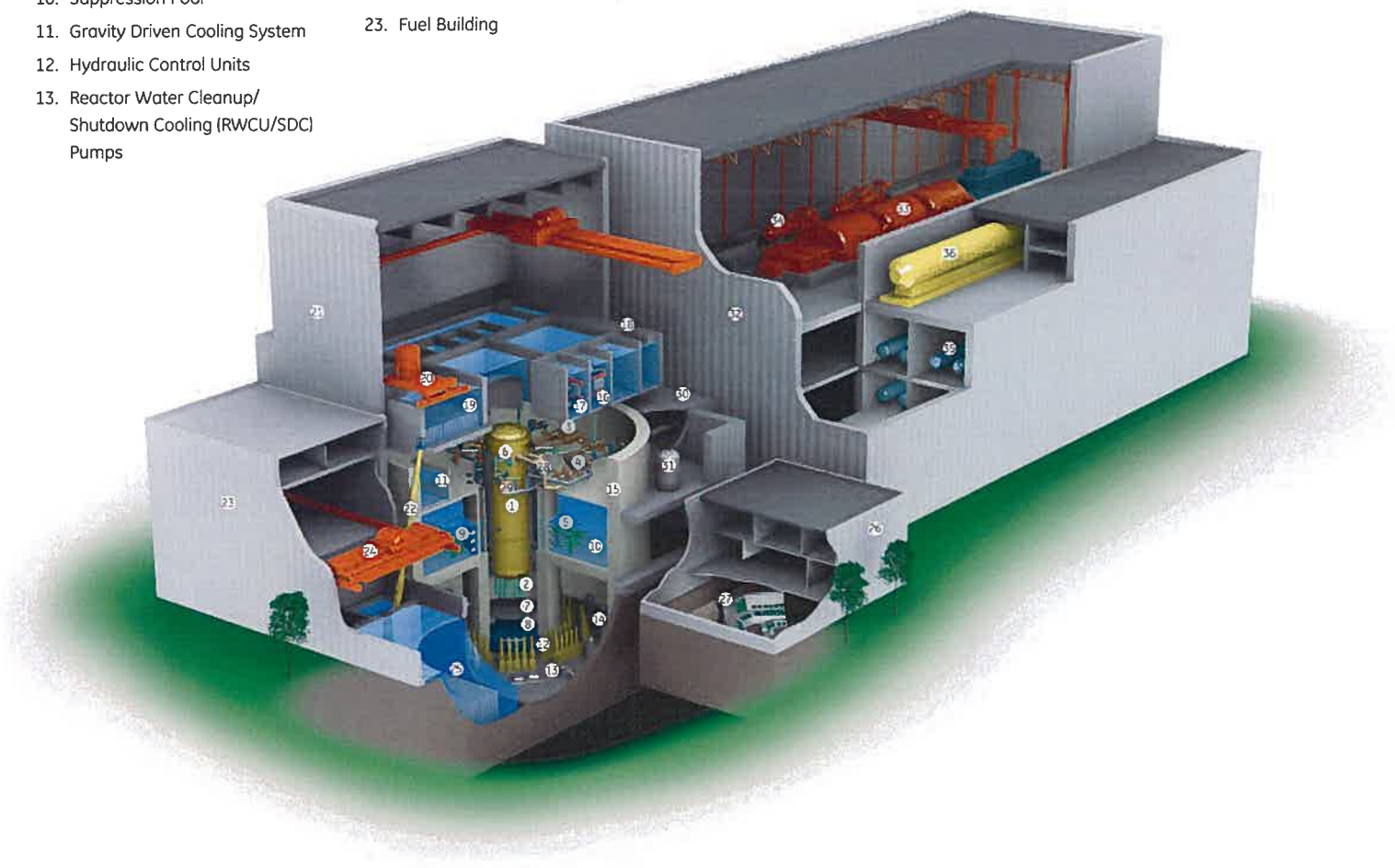
HITACHI

ecomagination

fact sheet

ESBWR

1. Reactor Pressure Vessel
2. Fine Motion Control Rod Drives
3. Main Steam Isolation Valves
4. Safety/Relief Valves (SRV)
5. SRV Quenchers
6. Depressurization Valves
7. Lower Drywell Equipment Platform
8. BiMAC Core Catcher
9. Horizontal Vents
10. Suppression Pool
11. Gravity Driven Cooling System
12. Hydraulic Control Units
13. Reactor Water Cleanup/ Shutdown Cooling (RWCU/SDC) Pumps
14. RWCU/SDC Heat Exchangers
15. Containment Vessel
16. Isolation Condensers
17. Passive Containment Cooling System
18. Moisture Separators
19. Buffer Fuel Storage Pool
20. Refueling Machine
21. Reactor Building
22. Inclined Fuel Transfer Machine
23. Fuel Building
24. Fuel Transfer Machine
25. Spent Fuel Storage Pool
26. Control Building
27. Main Control Room
28. Main Steam Lines
29. Feedwater Lines
30. Steam Tunnel
31. Standby Liquid Control System Accumulator
32. Turbine Building
33. Turbine-Generator
34. Moisture Separator Reheater
35. Feedwater Heaters
36. Direct Contact Feedwater Heater and Tank



HITACHI

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GEA-14429F (10/07)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

EXPERT DECLARATION BY DR. EDWIN S. LYMAN IN SUPPORT OF TEXANS FOR A SOUND ENERGY POLICY'S PETITION TO HOLD DOCKETING DECISION AND/OR HEARING NOTICE FOR VICTORIA COMBINED LICENSE APPLICATION IN ABEYANCE

I, Dr. Edwin S. Lyman, declare as follows:

1. I am a Senior Staff Scientist with the Global Security Program at the Union of Concerned Scientists, 1825 K Street, NW, Suite 800, Washington, D.C. 20006. My education and experience are described in my curriculum vitae, which is included as Attachment 1 to my declaration.

2. I am an expert in the technical analysis of safety, security and environmental issues related to nuclear facilities. I hold a Ph.D., a master's degree in science, and a bachelor's degree in physics. For over fifteen years, I have conducted research on security and environmental issues associated with the management of nuclear materials and the operation of nuclear power plants. My research has included the safety and environmental risks posed by the proposed designs for the next generation of U.S. reactors, including the Economic and Simplified Boiling Water Reactor ("ESBWR"), the Advanced Pressurized Water Reactor 1000 (AP1000) and the U.S. Evolutionary Power Reactor (U.S. EPR). Recently, I published an article on this topic in the Bulletin of the Atomic Scientists. A list of my publications is included in my attached curriculum vitae.

3. I am generally familiar with the safety features of the GE-Hitachi Corporation's ESBWR design certification application. I am also generally familiar with the ESBWR severe accident analysis contained in the GE-Hitachi design certification application and the Victoria combined construction permit and operating license application ("COLA"). In addition, I am generally familiar with the NRC's regulations for the safe design and operation of nuclear power plants.

4. The proposed ESBWR design relies primarily on natural forces such as gravity to provide emergency water in the event of a loss of coolant instead of on "active" equipment such as motor-driven pumps. GE boasts that it has been able to eliminate "eleven systems" from previous designs," and that the ESBWR design has "25 percent fewer pumps, valves, and motors." GE-Hitachi Fact Sheet, posted at http://ge.ecomagination.com/site/products/esgw/html. GE asserts that the design's passive safety systems "reduce the number of active systems, increasing safety" to the point that "[i]t is 11 times more likely for the largest asteroid near the earth to impact the

earth over the next 100 years than for an ESBWR operational event to result in the release of fission products to the environment." *Id.*

5. However, the "passive" safety systems used by the ESBWR design are based on largely unproven technologies and are more complex and problematic than represented by GE-Hitachi in its public relations materials. While such systems may sound good in theory because passive safety systems can work without AC electric power or operator intervention, in reality they are not that simple. One problem is that gravity provides a much weaker driving force for coolant flow than the suction provided by pumps. This means that that it is harder to predict whether a passive system will work as well as an active system under the full range of potential dangers, including a terrorist attack or severe weather event. It is also misleading to refer to the ESBWR as a "passively safe" design because operator intervention is sometimes needed. For instance, the NRC's draft safety evaluation report of Rev. 4 of the ESBWR design certification application points out that "during shut-down, the plant relies on operator actions for accident mitigation more than it does during power operation. Several systems have no automatic actuation and rely on operators to initiate ..." Safety Evaluation Report, Chapter 19, Probabilistic Risk Assessment and Severe Accident Evaluation at 19-91 (May 11, 2008) (ADAMS Accession No. ML081400527).

6. Another potential problem with the ESBWR design is that it has a relatively small and weak pressure suppression containment, which are more vulnerable to failure than large-volume containments in the event of ex-vessel steam explosions or accumulation of non-compressible gases during an uncontrolled core-melt.

7. A third safety concern with the ESBWR is that none of the active backup safety systems are required to be "safety-grade," *i.e.,* they do not have to meet the same rigorous reliability standards set by the NRC for primary safety systems. While this may effectively cut costs, it also increases the chance that backup systems will not work when they are needed. This is a problem because the ESBWR may actually violate the NRC's severe accident safety goals if these backup systems are not available.

8. Given the uncertainties associated with these novel and largely untested safety features, many questions remain concerning the safety of the ESBWR design. For example, in the realm of severe accidents and PRA alone, several dozen open items remain unresolved in the NRC staff's ESBWR design certification review, many related to risk-important issues such as the regulatory treatment of non-safety related systems and the effectiveness of the Basemat Internal Melt and Coolability (BiMAC) device, which is intended to stabilize reactor core debris during a severe accident in which the core melts and breaches the reactor vessel. NRC Staff Presentation to the Advisory Committee on Reactor Safeguards, ESBWR Design Certification Review, Chapters 19 and 19A (October 2, 2008).

9. Given the extensive list of staff open items on the ESBWR design certification application, it is likely that the ESBWR design will undergo several further iterations before the design certification rulemaking is initiated. In my judgment, it is illogical to

require TSEP to formulate contentions on the Victoria COLA before the ESBWR design is finalized and certified. As a general matter, it is not possible to assess the safety of the proposed ESBWR at the Victoria site until numerous fundamental design questions have been resolved. Many of my concerns regarding the impact of the proposed Victoria plant on public health and safety are integrally related to questions of fundamental plant design and the details of the PRA based on that design. The outcome of the rulemaking with respect to these fundamental questions could lead to additional design changes that could have a significant impact on contentions challenging the adequacy of aspects of the COLA itself, including operational procedures, technical specifications, and the physical security plan. For instance, important questions remain regarding the impact of severe hurricane-force winds on the currently proposed ESBWR design. The vulnerability of the plant at the Victoria site to such events will depend on whether and how the final design is modified to address the risk of severe hurricane-force winds. Similarly, the ESBWR design certification application has unresolved issues regarding the regulatory treatment of non-safety systems. Until those open issues are resolved, it will be difficult to assess whether the site-specific procedures for operations such as outage management will be adequate. Finally, the physical protection plan for the proposed Victoria nuclear plant depends on the designation and protection of target sets, which in turn depend on the PRA for the ESBWR design. To attempt to formulate contentions on security-related features of the COLA that have a significant dependence on ESBWR design features, at this very early stage in the process for approval of the ESBWR design, is akin to shooting at a moving target.

I declare, under penalty of perjury, that the factual statements above are true and correct to the best of my knowledge, and the expressions of opinion stated above are based on my best professional judgment.

Dr. Edwin S. Lyman

Dr. Edwin S. Lyman

October 31, 2008