

Greg Gibson  
Vice President, Regulatory Affairs

750 East Pratt Street, Suite 1600  
Baltimore, Maryland 21201



**This Document Contains Proprietary Information**

10 CFR 50.4  
10 CFR 52.79

January 31, 2011

UN#11-014

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016  
Response to Request for Additional Information for the  
Calvert Cliffs Nuclear Power Plant, Unit 3,  
RAI No. 281, Part 1: Introduction and Interfaces

- References:
- 1) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI 281 PFPB 5278" email dated December 2, 2010
  - 2) UniStar Nuclear Energy Letter UN#10-304, from Greg Gibson to Document Control Desk, U.S. NRC, Response to Request for Additional Information for the Calvert Cliffs Nuclear Power Plant, Unit 3, RAI 281, Foreign Ownership, dated December 7, 2010

The purpose of this letter is to respond to the request for additional information (RAI) identified in the NRC e-mail correspondence to UniStar Nuclear Energy (Reference 1). This RAI addresses ownership and corporate organizational structure for Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3, as discussed in Part 1 of the CCNPP Unit 3 Combined License Application (COLA), Revision 7.

Reference 2 stated that a response to RAI 281, Question 01-13, would be provided by January 31, 2011. Enclosures 1 through 6 provide our response to Question 01-13, and include revised COLA content. A Licensing Basis Document Change Request has been initiated to incorporate these changes into a future revision of the COLA.

Our response to Question 01-13 does not include any new regulatory commitments. The information provided in Enclosure 6 has been identified as proprietary. We request that it be withheld from public disclosure in accordance with 10 CFR 2.390(a)(4). An affidavit providing the basis for this request for withholding is provided in Enclosure 7.

D096  
NRO

If there are any questions regarding this transmittal, please contact me at (410) 470-4205, or Mr. Wayne A. Massie at (410) 470-5503.

*I declare under penalty of perjury that the foregoing is true and correct.*

Executed on January 31, 2011

A handwritten signature in black ink, appearing to read 'Greg Gibson', with a long horizontal flourish extending to the right.

Greg Gibson

- Enclosures:
- 1) Response to NRC Request for Additional Information 281, Question 01-13, Calvert Cliffs Nuclear Power Plant, Unit 3, COLA Part 1, General Information
  - 2) Calvert Cliffs Nuclear Power Plant, Unit 3, COLA Part 1, General Information, Page Markups (NON-PROPRIETARY)
  - 3) Calvert Cliffs Nuclear Power Plant, Unit 3, COLA Part 2, Final Safety Analysis Report, Appendix 1A, Negation Action Plan (NON-PROPRIETARY)
  - 4) Calvert Cliffs Nuclear Power Plant, Unit 3, COLA Part 2, Final Safety Analysis Report, Page Markups (NON-PROPRIETARY)
  - 5) Calvert Cliffs Nuclear Power Plant, Unit 3, COLA Part 3, Environmental Report, Page Markups (NON-PROPRIETARY)
  - 6) Calvert Cliffs Nuclear Power Plant, Unit 3, COLA Parts 1, 2, and 3, Page Markups (PROPRIETARY)
  - 7) Affidavit Requesting the Withholding of Enclosure 6 from Public Disclosure in Accordance with 10 CFR 2.390(a)(4)

cc: Surinder Arora, NRC Project Manager, U.S. EPR Projects Branch  
Laura Quinn, NRC Environmental Project Manager, U.S. EPR COL Application  
Getachew Tesfaye, NRC Project Manager, U.S. EPR DC Application (w/o enclosure)  
Charles Casto, Deputy Regional Administrator, NRC Region II (w/o enclosure)  
Silas Kennedy, U.S. NRC Resident Inspector, CCNPP, Units 1 and 2  
U.S. NRC Region I Office

**Enclosure 1**

**Response to NRC Request for Additional Information 281, Question 01-13,  
Calvert Cliffs Nuclear Power Plant, Unit 3,  
COLA Part 1, General Information**

**(NON-PROPRIETARY)**

**RAI No. 281**

**Question 01-13**

Follow-up to RAI 263, Question 01-12

On July 13, 2007, UniStar Nuclear Operating Services, LLC (UniStar) and Constellation Generation Group (Constellation) applied for a reference combined license for Calvert Cliffs Unit 3 Nuclear Project. On November 3, 2010, on behalf of UniStar, counsel for Calvert Cliffs Unit 3 Nuclear Project filed a letter with the Atomic Safety and Licensing Board panel indicating that Electricite de France (EDF), a foreign business entity, had acquired Constellation's 50 percent interest in UniStar. On November 4, 2010, Constellation filed a Schedule 13D with the United States Securities and Exchange Commission confirming that this transaction between Constellation and EDF had been completed on November 3, 2010.

Prior to this transaction the U.S. Nuclear Regulatory Commission (NRC) issued request for additional information (RAI) 263, Question 01-12 (ML102640034) that requested, among other items, clarifying information on foreign ownership, control and domination. Given the information discussed above, the staff intends to request the following information:

In view of the fact that EDF is a foreign entity and apparently now possesses 100% ownership of UniStar, please justify how UniStar complies with the requirements of 10 CFR § 50.38, "Ineligibility of Certain Applicants."

**Response**

10 CFR § 50.38, "Ineligibility of Certain Applicants," establishes eligibility requirements for entities who would apply for and obtain a license, and precludes entities that the Commission knows or has reason to believe are owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, from applying for and obtaining a license.

UniStar Nuclear Energy, LLC (UNE) has established a Negation Action Plan (the Plan) that provides requirements and guidance to ensure negation of potential foreign ownership, control or domination (FOCD) over the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 licenses held by Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC. A copy of the Plan is provided as Enclosure 3. The Plan implements measures to fully negate FOCD with respect to matters involving the nuclear safety, security, and reliability of CCNPP Unit 3 throughout the design, construction and operation of CCNPP Unit 3. The same measures negate potential foreign influence.

The Plan describes the controls implemented to assure that the governance of UniStar Nuclear Energy, LLC (UNE) and the licensed activities undertaken by Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC are not subject to FOCD within the meaning 10 CFR 50.38 and Section 103.d of the Atomic Energy Act of 1954, as amended (Section 103.d of the Act).

The Plan has been developed using the guidance provided by the NRC's "Final Standard Review Plan on Foreign Ownership, Control, or Domination," 64 FR 52355 (September 28, 1999) (FOCD SRP). Defense-in-depth is provided through a number of measures in order to ensure that there is U.S. control over matters relating to nuclear safety, security and reliability,

including most significantly the UNE security programs and UNE safety programs, including Quality Assurance. These measures effectively negate the risk that UNE's foreign owned parent companies might exercise control, domination, or influence over matters that are required to be under U.S. control pursuant to the terms of 10 CFR 50.38 and Section 103.d of the Act.

UNE owns and controls both UniStar Nuclear Operating Services, LLC and Calvert Cliffs 3 Nuclear Project, LLC, as well as intermediary subsidiaries and other UNE subsidiaries involved in the development of CCNPP Unit 3. UniStar Nuclear Operating Services, LLC is responsible for the operation of CCNPP Unit 3. Calvert Cliffs 3 Nuclear Project, LLC owns CCNPP Unit 3 and is responsible for providing the funding for construction, operation and decommissioning of CCNPP Unit 3.

The negation measures are implemented primarily through the terms of the Second Amended and Restated Limited Liability Company Agreement of UniStar Nuclear Energy, LLC (the UNE LLC Agreement) dated as of November 3, 2010. Additional requirements and further details regarding implementation of the negation measures are included in this Plan. These measures flow through to the actions of the licensee subsidiaries, which are subject to the ultimate control and direction of UNE. Each licensee subsidiary and intermediary subsidiary is a limited liability company managed by its members (in the case of Calvert Cliffs 3 Nuclear Project, LLC) or its member (in the case of all other subsidiaries), and not a Board, with the effect that UNE personnel are responsible for managing the affairs of the licensee subsidiaries.

The terms of the UNE LLC Agreement provide that a Security Subcommittee of the UNE Board has the exclusive right to exercise the Board's authority over the matters that are required to be under U.S. control. The Security Subcommittee is made up of U.S. citizens, the majority of whom must be independent directors, who are not employed by UNE, its parent companies or any of their affiliates. In addition, a Nuclear Advisory Committee (NAC), that is made up of a group of independent U.S. citizens who are experienced in national security and nuclear safety matters, provide an oversight function to advise UNE regarding its ongoing compliance with the FOCD restrictions imposed by U.S. law and NRC regulation. If necessary, the NAC can alert the U.S. Government regarding issues involving potential non-compliance with the applicable requirements.

UNE's security programs, including its Safeguards Information Program, assure that only authorized persons are provided access to security related information in accordance with applicable program requirements, and the Plan provides measures to assure that interpretation and implementation of those program requirements are administered under U.S. control. UNE does not possess or control access to restricted data or classified national security information. Rather, it has certain personnel who have obtained security clearances through the U.S. Nuclear Regulatory Commission. These personnel provide contract services to UNE, and they have obtained their security clearances through their employer companies. Thus, to the extent that these personnel may possess or control any restricted data or classified national security information now or in the future, they do so or would do so subject to the requirements of security programs controlled by their employer companies and not controlled by UNE. UNE will not interfere with the administration of such programs by other companies, and UNE will require that its personnel comply with all applicable requirements relating to such information.

Changes to the Plan may only be made upon the recommendation of UNE's Chief Executive Officer (CEO) and approval of the UNE Security Subcommittee. However, any proposed change that would result in a decrease in the effectiveness of the Plan will not be implemented without the prior approval of the NRC. The Plan is now incorporated as an Appendix to Chapter 1 of the CCNPP Unit 3 Final Safety Analysis Report, and The Plan is therefore subject to the same reporting requirements that are applicable to the FSAR.

Certain FOCD negation measures described in the Plan have been implemented in the UNE LLC Agreement, because it provides for the governance of UNE. UNE will notify NRC prior to implementing any material changes to the FOCD negation measures in the UNE LLC Agreement.

Enclosure 3 provides an update to Part 1, General Information, of the CCNPP Unit 3 Combined License, Application (COLA) that reflects the post-transaction ownership and corporate organization structure for CCNPP Unit 3. Conforming changes for COLA Part 2, Final Safety Analysis Report, and Part 3, Environmental Report, reflecting the post-transaction ownership and corporate organization structure are provided in Enclosures 4 and 5, respectively. The financial projections provided in COLA Part 1 have also been updated to reflect the most recent update to the CCNPP Unit 3 DOE Loan Guarantee application and are provided in Enclosure 6.

#### **COLA Impact**

Changes to the CCNPP Unit 3 COLA that are identified in Enclosures 2 through 6 will be incorporated in a future COLA revision.

**Enclosure 2**

**Calvert Cliffs Nuclear Power Plant, Unit 3,  
COLA Part 1, General Information  
Page Markups**

**(NON- PROPRIETARY)**

# **Calvert Cliffs Nuclear Power Plant Unit 3**

## **Combined License Application**

### **Part 1: General Information**

Revision 7a |  
January 2011 |

This COLA Part is completely Site Specific.



This page intentionally left blank.

## Table of Contents

<b>1.0</b>	<b>General Information .....</b>	<b>1-1</b>
1.1	Applicants .....	1-2
1.1.1	Description of Business or Operation .....	1-2
1.1.2	Organization and Management .....	1-2
1.1.3	Requested Licenses and Authorized Uses .....	1-11
1.2	Financial Qualification .....	1-13
1.3	Decommissioning Funding Assurance .....	1-15
1.3.1	Decommissioning Cost Estimate .....	1-15
1.3.2	Decommissioning Fund .....	1-15
1.3.3	Decommissioning Costs and Funding – Status Reporting .....	1-17
1.3.4	Recordkeeping Plans Related to Decommissioning Funding .....	1-17
1.4	Foreign Ownership, Control, or Domination .....	1-19
1.5	Restricted Data and Classified National Security Information .....	1-20
1.6	References .....	1-21
<b>A-1</b>	<b>Trust Fund Agreement .....</b>	<b>A-1-1  </b>
<b>A-2</b>	<b>Example Certificate of Events .....</b>	<b>A-2-1</b>
<b>A-3</b>	<b>Example Certificate of Resolution - Calvert Cliffs 3 Nuclear Project .....</b>	<b>A-3-1  </b>
<b>A-4</b>	<b>Example Acknowledgment .....</b>	<b>A-4-1  </b>

## List of Tables

Table 1.0-1— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement <sup>a</sup> Base Case .....	1-22
Table 1.0-2— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Statement of Operating Cash Flow ...	1-23
Table 1.0-3— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Project Cost .....	1-24
Table 1.0-4— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement <sup>a</sup> Sensitivity: Cost of Borrowing Increased 200 Basis Points .....	1-25
Table 1.0-5— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement <sup>a</sup> Sensitivity: 10% Reduction in Projected Market Prices .....	1-26
Table 1.0-6— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement <sup>a</sup> Sensitivity: 10% Reduction in Capacity Factor .....	1-27
Table 1.0-7— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement <sup>a</sup> Sensitivity: Receipt of Production Tax Credits .....	1-28
Table 1.0-8— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement <sup>a</sup> Sensitivity: 10% Higher Capital Cost .....	1-29
Table 1.0-9— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement 6 Month Regulatory Delay .....	1-30

## List of Figures

Figure 1.0-1— Organizational Structure .....	1-31
--	------

## **1.0 GENERAL INFORMATION**

This part of the Combined License (COL) Application for the Calvert Cliffs Nuclear Power Plant Unit 3 addresses the requirements of 10 CFR 50.33, "Content of applications; general information," (CFR, 2007a) and provides details of the applicant's corporate identity and location, applicant's ownership organization, the type of licenses being applied for, the applicant's financial qualifications, decommissioning funding assurance, foreign ownership, control, or domination information, and agreement limiting access to classified information.

## 1.1 APPLICANTS

The co-applicants for the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 are Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC. The former will be the owner and the latter will be the operator. Applicants' names, addresses, and principal offices are as follows:

Calvert Cliffs 3 Nuclear Project, LLC.  
750 East Pratt Street  
Baltimore, MD 21202

UniStar Nuclear Operating Services, LLC.  
750 East Pratt Street  
Baltimore, MD 21202

The principal business location for UniStar Nuclear Operating Services, LLC is 750 East Pratt Street, Baltimore, MD 21202. The principal business location for Calvert Cliffs 3 Nuclear Project, LLC is the Calvert Cliffs Nuclear Power Plant site located at or near 1650 Calvert Cliffs Parkway, Lusby, MD 20657.

### 1.1.1 Description of Business or Operation

#### 1.1.1.1 Calvert Cliffs 3 Nuclear Project, LLC

Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs 3 Nuclear Project) is a limited liability company and is an indirect subsidiary (through UniStar Nuclear Holdings, LLC (UniStar Nuclear Holdings) and UniStar Project Holdings, LLC (UniStar Project Holdings), which operate as holding companies) of UniStar Nuclear Energy, LLC (UniStar Nuclear Energy) (see Figure 1.0-1). UniStar Nuclear Energy is owned by EDF Inc. EDF Inc. is an indirect subsidiary of (through E.D.F. International S.A.) of Électricité de France S.A.

Calvert Cliffs 3 Nuclear Project has been formed to be a licensee and owner of CCNPP Unit 3. Calvert Cliffs 3 Nuclear Project is organized under the laws of the State of Delaware pursuant to the First Amended and Restated Operating Agreement of Calvert Cliffs 3 Nuclear Project, LLC dated April 22, 2010, by UniStar Project Holdings, LLC and GSS Holdings (CCNP 3), Inc.

#### 1.1.1.2 UniStar Nuclear Operating Services

UniStar Nuclear Operating Services, LLC (UniStar Nuclear Operating Services) is a limited liability company and is an indirect subsidiary (through UniStar Nuclear Holdings, which operates as a holding company) of UniStar Nuclear Energy. UniStar Nuclear Energy is owned by EDF Inc. EDF Inc. is an indirect subsidiary of Électricité de France S.A. (through E.D.F. International S.A.).

UniStar Nuclear Operating Services has been formed to be a licensee and to operate U.S. EPR nuclear power plants in the United States. UniStar Nuclear Operating Services is organized under the laws of the State of Delaware pursuant to the First Amended and Restated Operating Agreement of UniStar Nuclear Operating Services dated January 12, 2011, by UniStar Nuclear Holdings. UniStar Nuclear Operating Services will operate CCNPP Unit 3.

### 1.1.2 Organization and Management

A simplified organizational chart depicting the relationship between the applicants and their parent companies is provided in Figure 1.0-1. The organization and management of each of the business entities depicted on the chart are discussed below.

**1.1.2.1 Électricité de France S.A.**

Électricité de France S.A. (EDF), through its subsidiaries, is a major electricity producer based in France. EDF is the largest nuclear plant owner and most experienced nuclear operator in the world. EDF is also the largest utility in France, where nuclear power provides approximately 80% of the electricity.

EDF is a Société Anonyme organized under the laws of France and is governed by a Board of Directors. EDF is a public company listed on the NYSE-Euronext Paris stock exchange. As of January 1, 2011, the French State held approximately 84.5 percent of the shares of EDF and is the only shareholder with an interest greater than 5 percent. It holds its shares through the Agence des Participations de l'Etat (APE), the French Government Shareholding Agency within the French Ministry of Economy. Members of the public, including institutional investors and individual shareholders, own approximately 13.1 percent of EDF's shares, while employees own approximately 2.4 percent. In accordance with French law, the French State will hold at least 70% of the capital and voting rights of EDF.

The business and affairs of EDF are managed by its Board of Directors. EDF's Board of Directors is made up of 18 members appointed for 5 years:

- ◆ 6 members elected by General Shareholders' Meeting;
- ◆ 6 French government representatives;
- ◆ 6 employee representatives.

The Chairman is appointed by the French Council of Ministers following the proposal of the Board of Directors. The Chairman of the Board is Henri Proglio. Mr. Proglio is a citizen of France. His address is: 22-30, avenue de Wagram, 75832 Paris Cedex 08, Paris, France.

The other directors of EDF are as follows:

Mireille Faugère (citizen of France)  
 Philippe Crouzet (citizen of France)  
 Michael Jay of Ewelme (citizen of United Kingdom)  
 Bruno Lafont (citizen of France)  
 Pierre Mariani (citizen of France)  
 Pierre-Marie Abadie (citizen of France)  
 Jean-Dominique Comolli (citizen of France)  
 Yannick d'Escatha (citizen of France)  
 Phillip Josse (citizen of France)  
 Pierre Sellal (citizen of France)  
 Philippe Van de Maele (citizen of France)  
 Christine Chabauty (citizen of France)  
 Alexandre Grillat (citizen of France)  
 Phillipe Maissa (citizen of France)  
 Philippe Pesteil (citizen of France)  
 Jean-Paul Rignac (citizen of France)  
 Maxime Villota (citizen of France)

The Chairman of the Board of Directors, who holds the title of Chairman and President, is in charge of the management of the Company.

The names, titles, addresses, and citizenship of the principal executives and officers of EDF are as follows:

Name	Title	Address	Citizenship
Henri Proglio	President	22-30, avenue de Wagram 75382 Paris Cedex 08 (France)	France
Pierre Lederer	Senior Executive Vice President	22-30, avenue de Wagram 75382 Paris Cedex 08 (France)	France
Marianne Laigneau	Senior Executive Vice President	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France
Jean-Louis Mathias	Senior Executive Vice President	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France
Hervé Machenaud	Senior Executive Vice President	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France
Alain Tchernonog	General Secretary	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France
Thomas Piquemal	Chief Financial Officer	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France
Vincent de Rivaz	Chief Executive of EDF Energy	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France
Denis Lépée	Secretary to Executive Committee	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France

#### 1.1.2.2 E.D.F. International S.A.

E.D.F. International S.A. (E.D.F. International) is a wholly-owned subsidiary of EDF. E.D.F. International is a holding company for the international activities of Électricité de France S.A.. The principal business activities of E.D.F. International are investment and management of holdings in any and all entities business related to electric power, including: acquisition, construction, operation or transfer of assets in the energy sector; and purchase or sale of capacity in any type of energy infrastructure.

The business and affairs of E.D.F. International are managed by its Board of Directors. The President of the Board is Mr. Henri Proglio. Mr. Proglio is a citizen of France. The registered business address for E.D.F. International is: 20 Place de la Défense, Tour EDF, 92050 Paris La Défense Cedex (France).

Other directors of E.D.F. International are:

Dominique Lagarde (citizen of France)  
 Bruno Lescoeur (citizen of France)  
 Paul Godin (citizen of France)  
 Stéphane Tortajada (citizen of France)  
 Gérard Roth (citizen of France)  
 Bénédicte Gendry (citizen of France)



Gérard Wolf (citizen of France)  
Michel Roussin (citizen of France)

The General Manager is in charge of management of the company. The names, titles, addresses, and citizenship of the principal executives and officers of E.D.F. International are as follows:

Name	Title	Address	Citizenship
Gérard Wolf	General Manager	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France
Guillaume de Forceville	Deputy General Manager	Tour EDF, 20 Place de La Défense 92050 Paris La Défense Cedex (France)	France
Anne Collas-Thiebault	General Secretary	22-30 avenue de Wagram 75832 Paris Cedex 08 (France)	France

### 1.1.2.3 EDF Inc.

Participation in UniStar Nuclear Energy by EDF is through its subsidiary, EDF Inc., a Delaware corporation. The business and affairs of EDF Inc. are managed by its Board of Directors. The EDF Inc. Board of Directors is made up of 5 members. The President of the Board is Mr. Eric Bret. Mr. Bret is a citizen of France. The business address for EDF Inc. is 5404 Wisconsin Ave., Suite 400, Chevy Chase, MD 20815.

Other directors of EDF Inc. are:

Jean-Paul Palma (citizen of France)  
Marc Kugler (citizen of France)  
Guillaume de Forceville (citizen of France)  
Jacques Sacreste (citizen of France)

The President of the Board of Directors is in charge of the management of the Company. The names, titles, addresses, and citizenship of the principal executives and officers of EDF Inc. are as follows:

Name	Title	Address	Citizenship
Eric Bret	President	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815	France
Alexander Daniels	Secretary and Vice President Legal	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815	New Zealand
Marc Kugler	Vice President Operations and Corporate Affairs	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815	France
Corinne Delaye	Vice President, Finance and Treasurer	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815	France

Name	Title	Address	Citizenship
Michael Maschi	Vice President, Nuclear	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815	France
Daniel Leroy	Vice President, Fuel Procurement and Canada Business Development	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815	France
John Morris	Vice President, Strategy	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815	United Kingdom
Jacques Sacreste	Vice President	Tour EDF, 20 Place de la Défense, 92050 Paris La Défense Cedex, France	France
Adja Ba	Assistant Secretary	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815	Senegal

#### 1.1.2.4 UniStar Nuclear Energy, LLC

The business and affairs of UniStar Nuclear Energy are and will be managed under the direction of a Board of Directors, currently consisting of eight directors, including two independent directors. The Chairman of the Board is Mr. Steven Wolfram. Mr. Wolfram is a U.S. citizen. The business address for UniStar Nuclear Energy is 750 East Pratt Street, Baltimore, MD 21202. UniStar Nuclear Energy is registered in Delaware.

The Board of Directors is appointed by EDF Inc. The Chairman, and anyone acting for the Chairman, must be a U.S. citizen, and may be removed only by EDF Inc.

The other directors of UniStar Nuclear Energy are as follows:

Eric Bret (citizen of France)  
 Dominique Lagarde (citizen of France)  
 Matthew Poisson (citizen of France)  
 Gilles Zask (citizen of France)  
 Jacques Sacreste (citizen of France)  
 Bruce Mallet (Independent Director), citizen of U.S.  
 Neil Todreas (Independent Director), citizen of U.S.

Both the Chief Executive Officer (CEO) and Chief Nuclear Officer (CNO), who must be U.S. citizens, are nominated by the Board of Directors. The CEO is the senior executive responsible for UniStar Nuclear Energy day-to-day operations, and has senior nuclear management experience.

The names, titles, and addresses of the principal executives and officers of UniStar Nuclear Energy are as follows:

Name	Title	Address
George Vanderheyden (citizen of U.S.)	President, CEO, and Chief Nuclear Officer	750 East Pratt Street Baltimore, MD 21202
Debbie Hendell (citizen of Canada)	Secretary	750 East Pratt Street Baltimore, MD 21202

Name	Title	Address
Patrick Blandin (citizen of France)	Chief Financial Officer, Finance Vice President, and Treasurer	750 East Pratt Street Baltimore, MD 21202
Christopher Colbert (citizen of U.S.)	Senior Vice President	750 East Pratt Street Baltimore, MD 21202
Kent Miller (citizen of U.S.)	Vice President Finance and Deputy Chief Financial Officer	750 East Pratt Street Baltimore, MD 21202
Alexander Daniels (citizen of New Zealand)	Assistant Secretary	5404 Wisconsin Ave. Suite 400 Chevy Chase, MD 20815

#### 1.1.2.5 UniStar Nuclear Holdings, LLC

The business and affairs of UniStar Nuclear Holdings are managed by or under the direction of the Member. The Member of UniStar Nuclear Holdings is UniStar Nuclear Energy. The Member has full and complete authority, power, and discretion to manage the business and affairs of UniStar Nuclear Holdings and to make any and all decisions that are necessary and appropriate. UniStar Nuclear Holdings is registered in Delaware. The ownership and management structure for UniStar Nuclear Energy is discussed in Section 1.1.2.4.

The Member is authorized to elect officers for the conduct of business of UniStar Nuclear Holdings and determine their responsibilities and duties. The Member elects the officers and the Member may remove an officer at any time.

The President is a U.S. citizen, who is appointed by the Member and is the senior executive responsible for UniStar Nuclear Holdings day-to-day operations.

The names, titles, and addresses of the principal executives and officers of UniStar Nuclear Holdings are as follows.

Name	Title	Address
George Vanderheyden (citizen of U.S.)	President	750 East Pratt Street Baltimore, MD 21202
Patrick Blandin (citizen of France)	Chief Financial Officer and Treasurer	750 East Pratt Street Baltimore, MD 21202
Debbie Hendell (citizen of Canada)	Vice President and Secretary	750 East Pratt Street Baltimore, MD 21202

#### 1.1.2.6 UniStar Project Holdings, LLC

The business and affairs of UniStar Project Holdings are managed by or under the direction of the Member. The Member of UniStar Project Holdings is UniStar Nuclear Holdings. The Member has full and complete authority, power, and discretion to manage the business and affairs of UniStar Project Holdings and to make any and all decisions that are necessary and appropriate. UniStar Project Holdings is registered in Delaware. The ownership and management structure for UniStar Nuclear Holdings is discussed in Section 1.1.2.5.

The Member is authorized to elect officers for the conduct of business of UniStar Project Holdings and determine their responsibilities and duties. The Member elects the officers and the Member may remove an officer at any time.

The President is a U.S. citizen, who is appointed by the Member and is the senior executive responsible for UniStar Project Holdings day-to-day operations.

The names, titles, and addresses of the principal executives and officers of UniStar Project Holdings are as follows.

Name	Title	Address
George Vanderheyden (citizen of U.S.)	President	750 East Pratt Street Baltimore, MD 21202
Patrick Blandin (citizen of France)	Chief Financial Officer and Treasurer	750 East Pratt Street Baltimore, MD 21202
Debbie Hendell (citizen of Canada)	Secretary	750 East Pratt Street Baltimore, MD 21202
Chris Colbert (citizen of U.S.)	Senior Vice President	750 East Pratt Street Baltimore, MD 21202

### 1.1.2.7 Calvert Cliffs 3 Nuclear Project, LLC

The business and affairs of Calvert Cliffs 3 Nuclear Project are managed by or under the direction of the Members. The Members of Calvert Cliffs 3 Nuclear Project are UniStar Project Holdings, and GSS Holdings (CCNP 3), Inc. UniStar Project Holdings is a Class A Member. GSS Holdings (CCNP 3) is a Class B Member. The Calvert Cliffs 3 Nuclear Project Operating Agreement has been amended to include a Class B Member holding a golden share (i.e., a nominal share with special voting rights, such as with respect to bankruptcy) and to incorporate separateness requirements. These changes were introduced to create the ring-fencing protections sought by lenders for Calvert Cliffs Unit 3.

Ring-fencing of Calvert Cliffs 3 Nuclear Project creates bankruptcy remoteness to protect the company's financial well-being against affiliates. This is achieved by mitigating the risk that an insolvent parent could siphon assets at times of financial distress by forcing Calvert Cliffs 3 Nuclear Project into "voluntary" bankruptcy or that a court could order "substantive consolidation" of Calvert Cliffs 3 Nuclear Project with a parent in the event of parent's insolvency. The separateness requirements also require Calvert Cliffs 3 Nuclear Project to, for example, hold itself as a separate entity and conduct business in its own name. As a result of these measures, the consent of the Class B Member is required for Calvert Cliffs 3 Nuclear Project to seek bankruptcy protection. The Class B Member otherwise has limited responsibilities and only holds a non-economic interest in Calvert Cliffs 3 Nuclear Project.

The Members have full and complete authority, power, and discretion to manage the business and affairs of Calvert Cliffs 3 Nuclear Project and to make any and all decisions that are necessary and appropriate, provided that the Class B Member's duties are limited to those expressly set forth in the Operating Agreement. Calvert Cliffs 3 Nuclear Project is registered in Delaware. The ownership and management structure for UniStar Project Holdings is discussed in Section 1.1.2.6. The ownership and management structure for GSS Holdings (CCNP 3) is discussed in Section 1.1.2.9.

The Members are authorized to elect officers for the conduct of business of Calvert Cliffs 3 Nuclear Project and determine their responsibilities and duties. The Members elect the officers and the Members may remove an officer at any time.

The President is a U.S. citizen, who is appointed by the Members and is the senior executive responsible for Calvert Cliffs 3 Nuclear Project day-to-day operations.

The names, titles, and addresses of the principal executives and officers of Calvert Cliffs 3 Nuclear Project are as follows.

Name	Title	Address
George Vanderheyden (citizen of U.S.)	President	750 East Pratt Street Baltimore, MD 21202
Didier C. Marchand (citizen of France)	Senior Vice President	750 East Pratt Street Baltimore, MD 21202
Edward P. Jarmas (citizen of U.S.)	General Manager	750 East Pratt Street Baltimore, MD 21202
Patrick Blandin (citizen of France)	Chief Financial Officer and Treasurer	750 East Pratt Street Baltimore, MD 21202
Debbie Hendell (citizen of Canada)	Secretary	750 East Pratt Street Baltimore, MD 21202

### 1.1.2.8 UniStar Nuclear Operating Services, LLC

The business and affairs of UniStar Nuclear Operating Services are managed by or under the direction of the Member. The Member of UniStar Nuclear Operating Services is UniStar Nuclear Holdings. The Member has full and complete authority, power, and discretion to manage the business and affairs of UniStar Nuclear Operating Services and to make any and all decisions that are necessary and appropriate. UniStar Nuclear Operating Services is registered in Delaware. The ownership and management structure for UniStar Nuclear Holdings is discussed in Section 1.1.2.5.

The Member is authorized to elect officers for the conduct of business of UniStar Nuclear Operating Services and determine their responsibilities and duties. The Member elects the officers and the Member may remove an officer at any time.

The President is a U.S. citizen, who is appointed by the Member and is the senior executive responsible for UniStar Nuclear Operating Services day-to-day operations.

The names, titles, addresses, and citizenship of the principal executives and officers of UniStar Nuclear Operating Services are as follows.

Name	Title	Address
George Vanderheyden (citizen of U.S.)	President and CEO	750 East Pratt Street Baltimore, MD 21202
Patrick Blandin (citizen of France)	Chief Financial Officer and Treasurer	750 East Pratt Street Baltimore, MD 21202
Debbie Hendell (citizen of Canada)	Secretary	750 East Pratt Street, Baltimore, MD 21202

### 1.1.2.9 GSS Holdings (CCNP 3), Inc.

GSS Holdings (CCNP 3), Inc. (GSS Holdings (CCNP 3)), is a Class B Member of Calvert Cliffs 3 Nuclear Project. As mandated by lenders, the Class B Member's consent is required for Calvert Cliffs 3 Nuclear Project to seek bankruptcy protection. Otherwise, GSS Holdings (CCNP 3) has limited responsibilities and only holds a non-economic interest in Calvert Cliffs 3 Nuclear Project.

The business and affairs of GSS Holdings (CCNP 3) are and will be managed under the direction of a Board of Directors, current consisting of three directors. GSS Holdings (CCNP 3), Inc., is

owned 100% by GSS Holdings, Inc. The directors of GSS Holdings (CCNP 3) are appointed by, and may only be removed by, GSS Holdings, Inc. The Board of Directors is authorized to appoint Officers for the conduct of business of GSS Holdings (CCNP 3) and determine their responsibilities and duties. GSS Holdings (CCNP 3) is a Delaware domestic Corporation.

The names, titles and addresses of the directors of GSS Holdings (CCNP 3), Inc., all of whom are U.S. citizens are as follows:

Frank B. Bilotta  
Kevin P. Burns  
Bernard J. Angelo

The President of GSS Holdings (CCNP 3) is a U.S. citizen, who is selected by the Board of Directors and is the senior executive responsible for GSS Holdings (CCNP 3) operations. The names, titles and addresses of the officers of GSS Holdings (CCNP 3), all of whom are U.S. citizens, are as follows:

Name	Title	Address
Frank B. Bilotta	President, Treasurer, and Assistant Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
Kevin P. Burns	Vice President, Asst. Treasurer, and Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
Bernard J. Angelo	Vice President, Asst. Treasurer, and Asst. Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
John L. Fridlington	Vice President, Asst. Treasurer, and Asst. Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
Timothy O'Connor	Vice President, Asst. Treasurer, and Asst. Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
Jill A. Russo	Vice President, Asst. Treasurer, and Asst. Secretary	68 South Service Rd, Ste 120 Melville, NY 11747

#### 1.1.2.10 GSS Holdings, Inc.

GSS Holdings, Inc., is owned by the following three individuals, all of whom are U.S. citizens:

	<u>Percentage Ownership</u>
Frank B. Bilotta	33.33%
Kevin P. Burns	33.33%
Bernard J. Angelo	33.34%

The business and affairs of GSS Holdings, Inc., are and will be managed under the direction of a Board of Directors, current consisting of four directors. The Board of Directors is authorized to appoint Officers for the conduct of business of GSS Holdings and determine their responsibilities and duties. GSS Holdings is a Delaware domestic Corporation.

The directors of GSS Holdings, Inc., all of whom are U.S. citizens are as follows:

Kevin P. Burns  
Bernard J. Angelo  
Catherine G. Mancusi  
Kenneth Ryan

The President of GSS Holdings is a U.S. citizen, who is selected by the Board of Directors and is the senior executive responsible for GSS Holdings operations. The names, titles and addresses of the officers of GSS Holdings, all of whom are U.S. citizens, are as follows:

Name	Title	Address
Frank B. Bilotta	President, Treasurer, and Assistant Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
Kevin P. Burns	Vice President, Asst. Treasurer, and Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
Bernard J. Angelo	Vice President, Asst. Treasurer, and Asst. Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
John L. Fridlington	Vice President, Asst. Treasurer, and Asst. Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
Timothy O'Connor	Vice President, Asst. Treasurer, and Asst. Secretary	68 South Service Rd, Ste 120 Melville, NY 11747
Jill A. Russo	Vice President, Asst. Treasurer, and Asst. Secretary	68 South Service Rd, Ste 120 Melville, NY 11747

### 1.1.3 Requested Licenses and Authorized Uses

This application is for a Class 103 combined license under 10 CFR 52 (CFR, 2007b) to construct and operate a U.S. EPR nuclear power plant unit at the CCNPP site, located near Lusby, Maryland. This U.S EPR nuclear power plant unit will be used to produce electricity for sale. The period of time for which the license for the unit is requested shall begin upon the NRC's granting of the combined license for CCNPP Unit 3 and shall expire 40 years from the date upon which the NRC makes a finding that acceptance criteria are met under 10 CFR 50.103(g) (CFR, 2007c) or allowing operation during an interim period under 10 CFR 52.103(c) (CFR, 2007c).

In addition, this application is for the necessary licenses issued under 10 CFR 30 (CFR, 2007d), 10 CFR 40 (CFR 2007e), and 10 CFR 70 (CFR, 2007f) to receive, possess, and use byproduct, source and special nuclear material. Byproduct, source, and special nuclear material shall be in the form of sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and fission detectors in amounts as required. Byproduct, source, and special nuclear material in amounts as required, without restriction to chemical or physical form, shall be for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components. Special nuclear material shall be in the form of reactor fuel, in accordance with limitations for storage and amounts required for reactor operation, as described in Part 2 of this Combined License Application.

The COLA has been generally developed with an assumed commercial operation date in 2015. This estimated date is provided for illustrative purposes only. The exact construction and startup schedules have yet to be finalized, and many potential scenarios are under evaluation. UniStar will provide construction and startup schedules after issuance of the COL once UniStar has made a final decision on the details of the construction of the plant.

The names and addresses of regulatory agencies that have jurisdiction over the rates and services incident to the proposed activity are as follows:

Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

Maryland Public Service Commission  
6 St. Paul Street, 16th floor  
Baltimore, MD 21202

Local news publications that circulate in the area around the proposed facility and that are considered appropriate to give reasonable notice of the application to those parties that might have a potential interest in the proposed facility are as follows:

Calvert Independent Newspaper  
P.O. Box 910  
Prince Frederick, MD 20678

Calvert County Recorder  
P.O. Box 485  
Prince Frederick, MD 20678

Enterprise Newspaper  
P.O. Box 700  
Lexington Park, MD 20653



## 1.2 FINANCIAL QUALIFICATION

As shown on Figure 1.0-1, both applicant organizations share common parent organizations that lead to ownership by EDF.

The participation of EDF in the applicant organizations demonstrates a strong financial ability to support the project. Current and historical financial information regarding EDF and its subsidiaries is available at <http://www.edf.com/>. That information supports the conclusion that EDF, and its subsidiaries possess, or have reasonable assurance of obtaining, the funds necessary to cover the construction and operating costs of CCNPP Unit 3 for the period of the License in accordance with 10 CFR 50.33(f)(2) (CFR, 2007a), and NUREG-1577, the Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance (NRC, 1999).

To provide financial assurance of the ability of Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services to protect public health and safety, EDF will provide, as needed, funds for the CCNPP Unit 3 project.

Projected income statements, including statements of operating cash flow and project costs, are provided in Tables 1.0-1 through 1.0-9. Tables 1.0-1 and 1.0-2 provide projected income statements and operating cash flows for CCNPP Unit 3. Table 1.0-3 provides the total project cost estimated for CCNPP Unit 3. Projected income statement sensitivity evaluations are provided, for CCNPP Unit 3, in Tables 1.0-4 through 1.0-9. These Tables have been developed with an assumed commercial operation date. This estimated date is provided for illustrative purposes only. The exact construction and startup schedules have yet to be finalized. UniStar will provide construction and startup schedules after issuance of the COL once UniStar has made a final decision on the details of the construction of the plant. The Projected income statements include an assumed annual decommissioning expense. This expense for annual deposits to a trust fund would be incurred if applicants used an alternative method of decommissioning funding assurance involving such contributions over time, rather than the "prepaid" trust fund currently planned.

The projected income statements and operating cash flows for CCNPP Unit 3 presented in Tables 1.0-1 and 1.0-2 demonstrate the project's financial viability. The project's financial robustness is further evidenced by the results of sensitivity analyses presented Tables 1.0-4 through 1.0-9. The sensitivity analyses, which reflect the financial impact of various potential adverse changes to base case assumptions, including higher borrowing costs, lower market prices, lower output capacity, elimination of Production Tax Credits, and higher construction capital costs, indicate that despite being stressed under various scenarios, the project's proforma income statement continues to remain financially attractive, thus supporting a strong business case for the project.

As reflected in Table 1.0-3, the total project cost estimated for CCNPP Unit 3 is [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]. The project is expected to be financed with approximately [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] debt and [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] equity, assuming the debt is covered by either U.S. federal loan guarantees or a combination of loan guarantees from the U.S. government and foreign export credit agencies. The planned debt/equity ratio for the financing of CCNPP Unit 3 is consistent with the provisions for federal loan guarantees included in the Energy Policy Act of 2005 (PLN, 2005). The total project cost estimate does not include the amount projected to be deposited in a decommissioning trust fund, which would

be funded with an additional equity contribution unless provision could be made for financing this cost.

It is expected that, with respect to the portion of the debt guaranteed by the Department of Energy under the loan guarantee program, the source of financing will be the Federal Financing Bank, and with respect to the portion of the debt insured by export credit agencies, the source of financing will be commercial banks. As more detailed information is developed regarding cost and financing of the facility, it will be submitted to the NRC, as appropriate.

### 1.3 DECOMMISSIONING FUNDING ASSURANCE

In accordance with the Commission's regulations in 10 CFR 50.33 (CFR, 2007a) and the guidance provided in NUREG-1577, "Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance," (NRC, 1999) decommissioning financial assurance information is provided in this section. The purpose of this section is to provide reasonable assurance that Calvert Cliffs 3 Nuclear Project, the owner-licensee for CCNPP Unit 3 has a viable plan to ensure that funds will be available to decommission CCNPP Unit 3, when required. As such, this subsection and the associated Appendices constitute the decommissioning report required by 10 CFR 50.75, "Reporting and recordkeeping for decommissioning planning," paragraph (b) (CFR, 2007j).

This subsection provides (1) an estimate of total decommissioning costs and the funding methods to cover those costs, as provided in 10 CFR 50.75 (CFR, 2007j) and (2) the required financial assurance certification for decommissioning in an amount no less than that calculated in accordance with 10 CFR 50.75 (CFR, 2007j).

#### 1.3.1 Decommissioning Cost Estimate

COL applicants are required to include, as part of their application, a report containing a certification that financial assurance for decommissioning will be provided in an amount that may be more, but not less, than the amount stated in the table in 10 CFR 50.75(c)(1) (CFR, 2007j).

For CCNPP Unit 3, the minimum certification amount has been computed, using the formula provided in 10 CFR 50.75(c)(1) and (2) (CFR, 2007j) and appropriate escalation factors for energy, labor, and waste burial costs. The escalation factors for labor and energy were taken from regional data of the US Department of Labor, Bureau of Labor Statistics and the escalation factor for waste burial was taken from NUREG-1307, "Report of Waste Burial Charges" (NRC, 2010). The certification amount does not include the costs of dismantling or demolishing non-radiological systems and structures. The funding assurance covers only the removal of radiologically contaminated systems and structures, and reduction of residual radioactivity to a level that permits (1) release of the property for unrestricted use and termination of the license, or (2) release of the property under restricted conditions and termination of the license. In addition, the costs of managing and storing spent fuel on site until transfer to the U.S. Department of Energy for permanent disposal are not included. The minimum certification amounts were calculated with the NRC decommissioning funding option assuming the disposition of low level radioactive waste (LLRW) by waste vendors. The minimum certification amounts calculated in 2007 dollars is \$465 million assuming the disposition of LLRW by waste vendors for the decommissioning of CCNPP Unit 3.

Therefore, Calvert Cliffs 3 Nuclear Project, the owner-licensee, certifies that financial assurance for decommissioning CCNPP Unit 3 will be provided in the amount of at least \$465 million (in 2010 dollars) consistent with the minimum funding amount requirements established by 10 CFR 50.75(c) (CFR, 2007j).

#### 1.3.2 Decommissioning Fund

Calvert Cliffs 3 Nuclear Project, the owner-licensee, intends to utilize the prepayment method (funds deposited in a dedicated trust account), as provided in 10 CFR 50.75(e)(1), to provide reasonable assurance of decommissioning funding as required by 10 CFR 50.75 (CFR, 2007j). The funding amount for the trust fund will be based on the amount necessary based upon the formula amount calculated in accordance with 10 CFR 50.57(c), assuming a two percent real rate of return over the remaining license term and an assumed 7 year period of immediate

dismantlement as authorized by 10 CFR 50.75(e)(1)(i), to satisfy the estimated amount of funds to be necessary for decommissioning.

To satisfy decommissioning funding requirements, EDF shall deposit funds in a decommissioning trust fund meeting the requirements of 10 CFR 50.75(e)(1)(i). Finalization of the specific financial instruments to be utilized will be completed, and signed originals of those instruments will be provided to the NRC, prior to initial loading of fuel at CCNPP Unit 3 in accordance with the schedule in 10 CFR 50.75(e)(3) (CFR, 2007j).

Calvert Cliffs 3 Nuclear Project intends that the trust fund will contain, but not be limited to, the following attributes:

- ◆ The account will be segregated from licensee assets and outside the administrative control of the licensee and its subsidiaries or affiliates.
- ◆ The external sinking fund will be in the form of a trust.
- ◆ The trust will contain provisions to assure satisfaction of NRC requirements, including each of those set forth in 10 CFR 50.75(h)(1)(ii) with respect to licensees which are non-electric utilities, including:
  - ◆ No fund investment in securities or other obligations of the licensee or any other owner or operator of any nuclear power reactor or their affiliates, subsidiaries successors or assigns, or in a mutual fund in which at least 50 percent of the fund is invested in the securities of a licensee or parent company.
  - ◆ The trustee be obligated at all times to adhere to a standard of care set forth in the trust, which either shall be the standard of care, whether in investing or otherwise, required by State or Federal law or one or more State or Federal regulatory agencies.
  - ◆ Calvert Cliffs 3 Nuclear Project, its affiliates, and its subsidiaries will be prohibited from being engaged as investment manager for the funds or from giving day-to-day management direction of the funds' investments or direction on individual investments by the funds.
  - ◆ The trust, escrow account, Government fund, or other account used to segregate and manage the funds may not be amended in any material respect without written notification to the NRC.

Except for withdrawals being made under § 50.82(a)(8) for decommissioning, or for payments of ordinary administrative costs, no funds shall be withdrawn from the trust without 30 day advance written notice to the NRC.

Unexecuted example copies of a trust agreement, and related documentation are provided in Appendices A-1 through A-4. Prior to initial fuel loading at CCNPP Unit 3, the applicable executed copy of the trust agreement for the external sinking fund will also be submitted to the NRC. Executed documentation will be submitted to NRC no later than 30 days after the NRC publishes a notice of intended operation for CCNPP Unit 3 in the Federal Register under 10 CFR 52.103 (a) (CFR, 2007c).

Accordingly, Calvert Cliffs 3 Nuclear Project certifies that financial assurance for decommissioning will be provided no later than 30 days after the NRC publishes a notice of

intended operation for CCNPP Unit 3 in the Federal Register under 10 CFR 52.103(a) (CFR, 2007c) in the amount which may be more, but not less, than the amount stated in the table in 10 CFR 50.75(c)(1) (CFR, 2007j), adjusted using a rate equal to that stated in 10 CFR 50.75(c)(2) (CFR, 2007j) using the methods described herein, or as otherwise permitted by 10 CFR 50.75(e) (1) after having provided prior written notice to the NRC Staff of any proposed change(s) in the method of providing decommissioning funding assurance. Calvert Cliffs 3 Nuclear Project intends to provide continuous decommissioning funding assurance from the time period beginning 30 days after the NRC publishes the notice of intended operation for CCNPP Unit 3 to the completion of decommissioning and termination of the license.

### **1.3.3 Decommissioning Costs and Funding – Status Reporting**

In accordance with 10 CFR 50.75(e) (CFR, 2007j), Calvert Cliffs 3 Nuclear Project will, two years before and one year before the scheduled date for initial loading of fuel, submit a report containing a certification updating the information described in 10 CFR 50.75(b)(1) (CFR, 2007j), including a copy of the financial instruments to be used.

Additionally, in accordance with 10 CFR 50.75(f)(1) (CFR, 2007j), Calvert Cliffs 3 Nuclear Project will periodically report on the status of decommissioning funding for CCNPP Unit 3. This report will include, as a minimum, updates to the amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c) (CFR, 2007j); the amount accumulated to the end of the calendar year preceding the date of the report; a schedule of the annual amounts remaining to be collected; the assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections; any contracts upon which Calvert Cliffs 3 Nuclear Project is relying pursuant to 10 CFR 50.75 (e)(1)(v) (CFR, 2007j); any modifications occurring to the current method of providing financial assurance since the last submitted report; and any material changes to the trust agreement. These updates will take into account changes resulting from inflation or site-specific factors, such as changes in facility conditions or expected decommissioning procedures.

### **1.3.4 Recordkeeping Plans Related to Decommissioning Funding**

In accordance with 10 CFR 50.75(g) (CFR, 2007j), Calvert Cliffs 3 Nuclear Project will retain records, until the termination of the license, of information important to the safe and effective decommissioning of CCNPP Unit 3. These records will include the following.

1. Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records may be limited to instances when significant contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records will include any known information on identification of involved nuclides, quantities, forms, and concentrations.
2. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, appropriate records of available information shall be substituted concerning these areas and locations.

3. Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.
4. Records of:
  - a. The licensed site area, as originally licensed, which will include a site map and any acquisition or use of property outside the originally licensed site area for the purpose of receiving, possessing, or using licensed materials;
  - b. The licensed activities carried out on the acquired or used property; and
  - c. The release and final disposition of any property recorded in item a above, the historical site assessment performed for the release, radiation surveys performed to support release of the property, submittals to the NRC made in accordance with 10 CFR 50.83 (CFR, 2007k), and the methods employed to ensure that the property met the radiological criteria of subpart E of 10 CFR Part 20 (CFR, 2007l) at the time the property was released.

In addition, the financial assurance instruments, signed by the individuals authorized to act for the appropriate parties, shall be maintained in records and available for inspection until termination of the license.

**1.4 FOREIGN OWNERSHIP, CONTROL, OR DOMINATION**

The co-applicants, Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services are owned and controlled by UniStar Nuclear Energy, which is an indirect parent holding company for these companies. As shown in Figure 1.0-1, the ultimate parent holding company for UniStar Nuclear Energy is EDF. UniStar Nuclear Energy has implemented a CCNPP Unit 3 Negation Action Plan (Plan) to provide requirements and guidance to ensure negation of potential foreign ownership, control or domination (FOCD) over the CCNPP Unit 3 licenses held by Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services. The measures undertaken in the Plan provide the basis to conclude that Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services will not be owned, dominated, or controlled by foreign interests within the meaning of the Atomic Energy Act, and that issuance of a COL would not be inimical to the common defense and security.

The Plan is provided as Appendix 1A of Final Safety Analysis Report Chapter 1, and implements measures to fully negate FOCD with respect to matters involving the nuclear safety, security, and reliability of CCNPP Unit 3 throughout the design, construction and operation of CCNPP Unit 3. The Plan describes the controls implemented to assure that the governance of UniStar Nuclear Energy and the licensed activities undertaken by Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services are not subject to FOCD within the meaning 10 CFR 50.38 and Section 103.d of the Atomic Energy Act of 1954, as amended (Section 103.d of the Act) .

The Plan was developed using the guidance provided by the NRC's "Final Standard Review Plan on Foreign Ownership, Control, or Domination," 64 FR 52355 (September 28, 1999) (FOCD SRP). Defense-in-depth is provided through a number of measures in order to assure that there is U.S. control over matters relating to nuclear safety, security and reliability, including most significantly the security programs and safety programs, including Quality Assurance. These measures effectively negate the risk that the foreign owned parent companies might exercise control, domination, or influence over matters that are required to be under U.S. control pursuant to the terms of 10 CFR 50.38 and Section 103.d of the Act.

**1.5 RESTRICTED DATA AND CLASSIFIED NATIONAL SECURITY INFORMATION**

The combined license application for CCNPP Unit 3 does not contain any Restricted Data or other Classified National Security Information, nor does it result in any change in access to any Restricted Data or Classified National Security Information. In addition, it is not expected that activities conducted in accordance with the proposed combined license will involve such information. However, in the event that such information does become involved, and in accordance with 10 CFR 50.37, "Agreement limiting access to Classified Information," (CFR, 2007g), EDF, E.D.F. International, EDF Inc., UniStar Nuclear Energy, UniStar Nuclear Holdings, UniStar Project Holdings, Calvert Cliffs 3 Nuclear Project, UniStar Nuclear Operating Services, GSS Holdings (CCNP 3), Inc., and GSS Holdings, Inc. agree that they will not permit any individual to have access to, or any facility to possess, Restricted Data or classified National Security Information until the individual and/or facility has been approved for such access under the provisions of 10 CFR Part 25, "Access Authorization," (CFR, 2007h) and/or 10 CFR 95, "Facility Security Clearance and Safeguarding of National Security Information and Restricted Data," (CFR, 2007i).



**1.6 REFERENCES**

**CFR, 2007a.** Title 10 Code of Federal Regulations, Part 50.33, Content of applications; general information, 2007.

**CFR, 2007b.** Title 10 Code of Federal Regulations, Part 52, Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants, 2007.

**CFR, 2007c.** Title 10 Code of Federal Regulations, Part 52.103, Operation under a combined license, 2007.

**CFR, 2007d.** Title 10 Code of Federal Regulations, Part 30, Rules of General Applicability to Domestic Licensing of Byproduct Material, 2007.

**CFR, 2007e.** Title 10 Code of Federal Regulations, Part 40, Domestic Licensing of Source Material, 2007.

**CFR, 2007f.** Title 10 Code of Federal Regulations, Part 70, Domestic Licensing of Special Nuclear Material, 2007.

**CFR, 2007g.** Title 10 Code of Federal Regulations, Part 50.37, Agreement Limiting Access to Classified Information, 2007.

**CFR, 2007h.** Title 10 Code of Federal Regulations, Part 25, Access Authorization for Licensee Personnel, 2007.

**CFR, 2007i.** Title 10 Code of Federal Regulations, Part 95, Facility Security Clearance and Safeguarding of National Security Information and Restricted Data, 2007.

**CFR, 2007j.** Title 10 Code of Federal Regulations, Part 50.75, Reporting and recordkeeping for decommissioning planning, 2007.

**CFR, 2007k.** Title 10 Code of Federal Regulations, Part 50.83, Release of part of a power reactor facility or site for unrestricted use, 2007.

**CFR, 2007l.** Title 10 Code of Federal Regulations, Part 20, Standards for Protection Against Radiation, 2007.

**NRC, 1999.** Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance, NUREG-1577, Revision 1, U.S. Nuclear Regulatory Commission, February 1999.

**NRC, 2003.** Assuring the Availability of Funds for Decommissioning Nuclear Reactors, Regulatory Guide 1.159, Revision 1, U.S. Nuclear Regulatory Commission, October 2003.

**NRC, 2010.** Report of Waste Burial Charges, NUREG-1307, Revision 14, U.S. Nuclear Regulatory Commission, November 2010.

**PLN, 2005.** Public Law No. 109-58. Energy Policy Act of 2005, August 2005.

**Table 1.0-1— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement<sup>a</sup> Base Case**  
[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

(\$ Millions)	2007	2008	2009	2010	2011
Revenue					
Market	1,000	1,000	1,000	1,000	1,000
Total Revenues	1,000	1,000	1,000	1,000	1,000
Operating Expenses					
Nuclear Fuel <sup>b</sup>	100	100	100	100	100
O&M, Non-Outage	50	50	50	50	50
O&M, Refueling Outage	50	50	50	50	50
Property Taxes	50	50	50	50	50
Decommissioning Expenses <sup>c</sup>	50	50	50	50	50
Depreciation	50	50	50	50	50
Total Operating Expense	400	400	400	400	400
Operating Income	600	600	600	600	600
Other income/(expense)					
Interest Expense <sup>d</sup>	50	50	50	50	50
Interest Income <sup>e</sup>	50	50	50	50	50
Total other income/(expense)	0	0	0	0	0
Pretax Income	600	600	600	600	600
Income Taxes <sup>f</sup>	100	100	100	100	100
Net Income After-Tax	500	500	500	500	500

**Footnotes**

- Base Case assumes leverage of approximately 70% Debt/30% Equity with an estimated weighted average 6% interest rate.
- Includes DOE disposal fees.
- Includes the amortization and accretion of the Asset Retirement Obligation (ARO) asset and liability, respectively. The ARO is modeled as 100% the NRC minimum.
- Includes interest expense and amortization of debt fees.
- Includes interest income earned from the decommissioning trust fund, and debt service reserve, property tax and major maintenance reserve records.
- Base case assumes no receipt of Production Tax Credits.

**Table 1.0-2— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Statement of Operating Cash Flow**  
 [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

(\$ Millions)	2011	2012	2013	2014	2015
Revenue					
Market	1,000	1,000	1,000	1,000	1,000
Total Revenues	1,000	1,000	1,000	1,000	1,000
Operating Costs					
Nuclear Fuel <sup>a</sup>	1,000	1,000	1,000	1,000	1,000
O&M, Non-Outage	100	100	100	100	100
O&M, Refueling Outage	100	100	100	100	100
Property Taxes	100	100	100	100	100
Decommissioning Trust Contributions <sup>b</sup>	100	100	100	100	100
Total Operating Costs	1,400	1,400	1,400	1,400	1,400
Capital Project Expenditures <sup>c</sup>	100	100	100	100	100
Operating Cash Flows Before					
Income Taxes & Financing Costs	100	100	100	100	100

**Footnotes**

- Includes DOE disposal fees and nuclear fuel cash costs.
- Contributions made to fund the decommissioning trust fund, modeled at a rate of 10% the NRC minimum.
- Includes recurring/maintenance capital expenditures and outage capital.

**Table 1.0-3— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Project Cost**

[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

(\$ Millions)	[ ] <sup>a</sup>
Uses:	
Plant Cost	[ ]
Transmission	[ ]
Initial Fuel Load	[ ]
Interest During Construction (capitalized) <sup>b</sup>	[ ]
Other Financing Charges <sup>c</sup>	[ ]
Total Capital Project Cost	[ ]
Sources:	
Debt	[ ]
Equity	[ ]
Total Capital Project Cost	[ ]

**Footnotes**

- Cumulative projected debt, equity, and financing balances as of Commercial Operation Date (COD).
- Includes ECA commitment fees and Coface premium.
- Includes debt service reserve account funding, and other financing costs.

**Table 1.0-4— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement<sup>a</sup> Sensitivity:  
Cost of Borrowing Increased 200 Basis Points**

[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

(\$ Millions)	{} {} {} {} {}
Revenue	
Market	{} {} {} {} {}
Total Revenues	{} {} {} {} {}
Operating Expenses	
Nuclear Fuel <sup>b</sup>	{} {} {} {} {}
O&M, Non-Outage	{} {} {} {} {}
O&M, Refueling Outage	{} {} {} {} {}
Property Taxes	{} {} {} {} {}
Decommissioning Expenses <sup>c</sup>	{} {} {} {} {}
Depreciation	{} {} {} {} {}
Total Operating Expense	{} {} {} {} {}
Operating Income	{} {} {} {} {}
Other income/(expense)	
Interest expense <sup>d</sup>	{} {} {} {} {}
Interest income <sup>e</sup>	{} {} {} {} {}
Total other income/(expense)	{} {} {} {} {}
Pretax Income	{} {} {} {} {}
Income Taxes <sup>f</sup>	{} {} {} {} {}
Net Income After-Tax	{} {} {} {} {}

#### Footnotes

- Base Case assumes leverage of approximately {} Debt/{} Equity with an estimated weighted average {} interest rate.
- Includes DOE disposal fees.
- Includes the amortization and accretion of the Asset Retirement Obligation (ARO) asset and liability, respectively. The ARO is modeled as {} the NRC minimum.
- Includes interest expense and the amortization of debt fees.
- Includes interest income earned from the decommissioning trust fund, and debt service reserve, property tax and major maintenance reserve accounts.
- Base case assumes no receipt of Production Tax Credits.

**Table 1.0-5— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement<sup>a</sup> Sensitivity:  
10% Reduction in Projected Market Prices**

[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

(\$ Millions)	{}	{}	{}	{}	{}
Revenue					
Market	{}	{}	{}	{}	{}
Total Revenues	{}	{}	{}	{}	{}
Operating Expenses					
Nuclear Fuel <sup>b</sup>	{}	{}	{}	{}	{}
O&M, Non-Outage	{}	{}	{}	{}	{}
O&M, Refueling Outage	{}	{}	{}	{}	{}
Property Taxes	{}	{}	{}	{}	{}
Decommissioning Expenses <sup>c</sup>	{}	{}	{}	{}	{}
Depreciation	{}	{}	{}	{}	{}
Total Operating Expense	{}	{}	{}	{}	{}
Operating Income	{}	{}	{}	{}	{}
Other income/(expense)					
Interest expense <sup>d</sup>	{}	{}	{}	{}	{}
Interest income <sup>e</sup>	{}	{}	{}	{}	{}
Total other income/(expense)	{}	{}	{}	{}	{}
Pretax Income	{}	{}	{}	{}	{}
Income Taxes <sup>f</sup>	{}	{}	{}	{}	{}
Net Income After-Tax	{}	{}	{}	{}	{}

#### Footnotes

- Base Case assumes leverage of approximately {} Debt/{} Equity with an estimated weighted average {} interest rate.
- Includes DOE disposal fees.
- Includes the amortization and accretion of the Asset Retirement Obligation (ARO) asset and liability, respectively. The ARO is modeled as {} the NRC minimum.
- Includes interest expense and the amortization of debt fees.
- Includes interest income earned from the decommissioning trust fund, and debt service reserve, property tax and major maintenance reserve accounts.
- Base case assumes no receipt of Production Tax Credits.

**Table 1.0-6— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement<sup>a</sup> Sensitivity:  
10% Reduction in Capacity Factor**

[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

(\$ Millions)	{} {} {} {} {}
Revenue	
Market	{} {} {} {} {}
Total Revenues	{} {} {} {} {}
Operating Expenses	
Nuclear Fuel <sup>b</sup>	{} {} {} {} {}
O&M, Non-Outage	{} {} {} {} {}
O&M, Refueling Outage	{} {} {} {} {}
Property Taxes	{} {} {} {} {}
Decommissioning Expenses <sup>c</sup>	{} {} {} {} {}
Depreciation	{} {} {} {} {}
Total Operating Expense	{} {} {} {} {}
Operating Income	{} {} {} {} {}
Other income/(expense)	
Interest expense <sup>d</sup>	{} {} {} {} {}
Interest income <sup>e</sup>	{} {} {} {} {}
Total other income/(expense)	{} {} {} {} {}
Pretax Income	{} {} {} {} {}
Income Taxes <sup>f</sup>	{} {} {} {} {}
Net Income After-Tax	{} {} {} {} {}

#### Footnotes

- Base Case assumes leverage of approximately {} Debt/{} Equity with an estimated weighted average {} interest rate.
- Includes DOE disposal fees.
- Includes the amortization and accretion of the Asset Retirement Obligation (ARO) asset and liability, respectively. The ARO is modeled as {} the NRC minimum.
- Includes interest expense and the amortization of debt fees.
- Includes interest income earned from the decommissioning trust fund, and debt service reserve, property tax and major maintenance reserve accounts.
- Base case assumes no receipt of Production Tax Credits.

**Table 1.0-7— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement<sup>a</sup> Sensitivity:  
Receipt of Production Tax Credits**

[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

(\$ Millions)	{}	{}	{}	{}	{}
Revenue					
Market	{}	{}	{}	{}	{}
Total Revenues	{}	{}	{}	{}	{}
Operating Expenses					
Nuclear Fuel <sup>b</sup>	{}	{}	{}	{}	{}
O&M, Non-Outage	{}	{}	{}	{}	{}
O&M, Refueling Outage	{}	{}	{}	{}	{}
Property Taxes	{}	{}	{}	{}	{}
Decommissioning Expenses <sup>c</sup>	{}	{}	{}	{}	{}
Depreciation	{}	{}	{}	{}	{}
Total Operating Expense	{}	{}	{}	{}	{}
Operating Income	{}	{}	{}	{}	{}
Other income/(expense)					
Interest expense <sup>d</sup>	{}	{}	{}	{}	{}
Interest income <sup>e</sup>	{}	{}	{}	{}	{}
Total other income/(expense)	{}	{}	{}	{}	{}
Pretax Income	{}	{}	{}	{}	{}
Income Taxes <sup>f</sup>	{}	{}	{}	{}	{}
Net Income After-Tax	{}	{}	{}	{}	{}

#### Footnotes

- Base Case assumes leverage of approximately {} Debt/{} Equity with an estimated weighted average {} interest rate.
- Includes DOE disposal fees.
- Includes the amortization and accretion of the Asset Retirement Obligation (ARO) asset and liability, respectively. The ARO is modeled as {} the NRC minimum.
- Includes interest expense and the amortization of debt fees.
- Includes interest income earned from the decommissioning trust fund, and debt service reserve, property tax and major maintenance reserve accounts.
- Production Tax Credits assumed are based on receiving {} of the maximum megawatt allocation.



**Table 1.0-8— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement<sup>a</sup> Sensitivity:  
10% Higher Capital Cost**

[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

(\$ Millions)	{}	{}	{}	{}	{}
Revenue					
Market	{}	{}	{}	{}	{}
Total Revenues	{}	{}	{}	{}	{}
Operating Expenses					
Nuclear Fuel <sup>b</sup>	{}	{}	{}	{}	{}
O&M, Non-Outage	{}	{}	{}	{}	{}
O&M, Refueling Outage	{}	{}	{}	{}	{}
Property Taxes	{}	{}	{}	{}	{}
Decommissioning Expenses <sup>c</sup>	{}	{}	{}	{}	{}
Depreciation	{}	{}	{}	{}	{}
Total Operating Expense	{}	{}	{}	{}	{}
Operating Income	{}	{}	{}	{}	{}
Other income/(expense)					
Interest expense <sup>d</sup>	{}	{}	{}	{}	{}
Interest income <sup>e</sup>	{}	{}	{}	{}	{}
Total other income/(expense)	{}	{}	{}	{}	{}
Pretax Income	{}	{}	{}	{}	{}
Income Taxes <sup>f</sup>	{}	{}	{}	{}	{}
Net Income After-Tax	{}	{}	{}	{}	{}

#### Footnotes

- Base Case assumes leverage of approximately {} Debt/{} Equity with an estimated weighted average {} interest rate.
- Includes DOE disposal fees.
- Includes the amortization and accretion of the Asset Retirement Obligation (ARO) asset and liability, respectively. The ARO is modeled as {} the NRC minimum.
- Includes interest expense and the amortization of debt fees.
- Includes interest income earned from the decommissioning trust fund, and debt service reserve, property tax and major maintenance reserve accounts.
- Base case assumes no receipt of Production Tax Credits.

**Table 1.0-9— Calvert Cliffs Nuclear Power Plant Unit 3 Projected Income Statement 6 Month Regulatory Delay**

[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]

A specific sensitivity was not calculated for the 6-month non-regulatory delay scenario as it is believed that the 10% Higher Capital Cost Sensitivity (Table 1.0-8) conservatively bounds the 6-month non-regulatory delay scenario.

A 6-month delay is a scenario whereby the start of operations would be postponed for 6 months due to non-regulatory reasons.

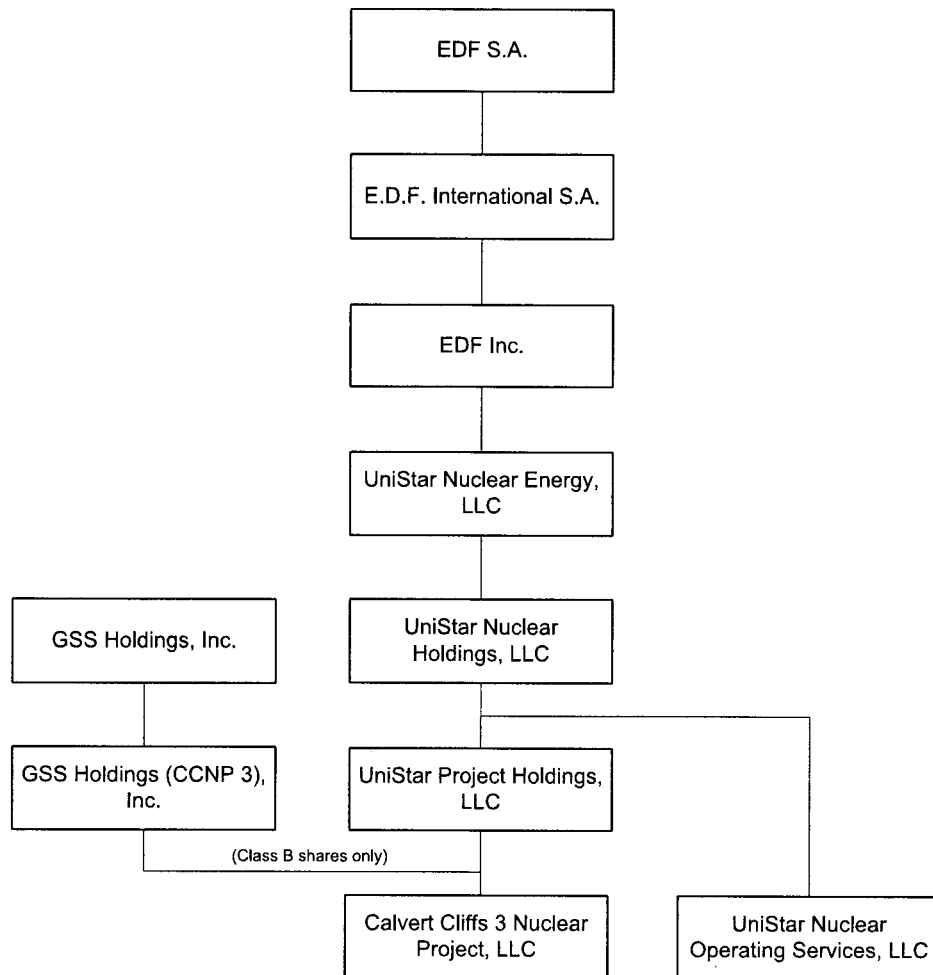
A 6-month non-regulatory delay would increase the Interest During Construction (IDC) and would incur additional operating costs (primarily labor and property tax). Operating costs incurred prior to Commercial Operation Date (COD) are capitalized and financed along with other construction costs.

The incremental capitalized interest and capitalized Operating and Maintenance (O&M) costs are estimated as follows.

**(\$ Millions)**

Total Base Case Capital Cost (from Table 1.0-3)	[ ]
Additional Interest on debt (from Table 1.0-3)	
([ ] * [ ] interest rate * 1/2 year)	[ ]
Additional Capitalized Operating Costs	
(Fixed O&M Cost includes: labor, overhead, property taxes, and insurance)	[ ]
Total 6-Month Non-Regulatory Delay Capital Cost	[ ]

The total capital cost would increase from [ ] to approximately [ ] (an increase of [ ]), which is significantly less than the [ ] total capital cost derived from the 10% Higher Capital Cost Sensitivity.

**Figure 1.0-1— Organizational Structure**

**A-1 TRUST FUND AGREEMENT** |

TRUST AGREEMENT, the Agreement entered into as of (date) by and between EDF Inc., a Delaware limited liability company, herein referred to as the "Grantor," and (name and address of an appropriate State or Federal government agency or an entity that has the authority to act as trustee and whose trust operations are regulated or examined by a State or Federal agency), the "Trustee;"

WHEREAS, the U.S. Nuclear Regulatory Commission (NRC), an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, has promulgated regulations in Title 10, Chapter 1 of the Code of Federal Regulations, Part 50. These regulations, applicable to the Grantor, require that a holder of, or an applicant for, a Part 50 license provide assurance that funds will be available when needed for required decommissioning activities; and

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee.

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

- a. The term "Grantor" means the NRC licensees who enter into this Agreement and any successors or assigns of the Grantor.
- b. The term "Trustee" means the trustee who enters into this Agreement and any successor Trustee.

Section 2. Costs of Decommissioning. This Agreement pertains to the costs of decommissioning the facility identified in License Number (insert license number) issued pursuant to 10 CFR Part 50.

Section 3. Establishment of Fund. The Grantor and Trustee hereby establish a Standby Trust Fund (the Fund) for the benefit of (insert the Grantor or other appropriate beneficiary such as a State agency or the NRC, but only to the extent the provisions of 31 U.S.C. 3302(b) would not be applicable). The Grantor and the Trustee intend that no third party shall have access to the Fund except as provided herein. (Modification of this provision to cover sale-leaseback agreements should be made contingent upon continued dedication of the trust to provide funds for decommissioning.)

Section 4. Payments Constituting the Fund. Payments made to the Trustee for the Fund shall consist of cash, securities, or other liquid assets acceptable to the Trustee. The Fund is established initially as consisting of property acceptable to the Trustee. Such property and any other property subsequently transferred to the Trustee are referred to as the "Fund," together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided.

Section 5. Payment for Required Activities Specified in the Plan. The Trustee shall make payments from the Fund to the Grantor or to a decommissioning contractor of the Grantor as the Grantor may designate upon presentation to the Trustee of the following:

- a. A certificate duly executed by the (Authorized Officers) of the Grantor attesting to the occurrence of the events, and in the form set forth in the attached Specimen Certificate (see certificate following standby trust), and
- b. A certificate attesting to the following conditions;

(1) that decommissioning is proceeding pursuant to an NRC-noticed plan, and

(2) that the funds withdrawn will be expended for activities undertaken pursuant to that Plan.

Notwithstanding the foregoing, except for payments for administrative costs (including taxes) and other incidental expenses of the Fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the Fund, no disbursements or payments from the Fund shall be made: (1) unless 30 working days prior written notice of such disbursement or payment has been made to the NRC or (2) if the Trustee receives written notice of an objection from the NRC's Director of the Office of Nuclear Reactor Regulation or the Director of the Office of Nuclear Material Safety and Safeguards, as applicable. Except that, the foregoing shall not apply if the Grantor is making a withdrawal pursuant to 10 CFR 50.82(a)(8).

In the event of the Grantor's default or inability to direct decommissioning activities, the Trustee shall: (1) make payments from the Fund as the NRC or State agency shall direct, in writing, to provide for the payment of the costs of required activities covered by this Agreement; (2) make disbursements to the Grantor or other persons as specified by the NRC, or State agency, from the Fund for expenditures for required activities in such amounts as the NRC, or State agency, shall direct in writing; and (3) refund to the Grantor such amounts remaining after the license has been terminated or as the NRC or State Agency specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 6. Trust Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge its duties with respect to the Fund in the best interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- a. Securities or other obligations of the grantor, or any other owner or operator of any nuclear power reactor, or any of their affiliates, subsidiaries, successors, or assigns, as defined in the Investment Company Act of 1940, as amended (15 U. S. C. 80A-2(a)), or in a mutual fund in which at least 50 percent of the fund is invested in the securities of an NRC licensee of a nuclear power plant, or a parent company whose subsidiary is an owner or operator of a foreign or domestic nuclear power plant shall not be acquired or held. Investments tied to market indices or other non-nuclear-sector collective, commingled, or mutual funds (i.e., a mutual fund in which less than 50 percent of the fund is invested in the securities of a licensee or a parent company whose subsidiary is an owner or operator of a foreign or domestic nuclear power plant) may be acquired or held, provided, however, that no more than 10 percent of trust assets may be indirectly invested in securities of any entity owning or operating one or more nuclear power plants.

- b. For a reasonable time, not to exceed 60 days, the Trustee is authorized to hold uninvested cash, awaiting investment or distribution, without liability for the payment of interest thereon.
- c. Any person directing investments made in the trusts shall adhere to the (applicable State-specific investment standard and/or the "prudent investor" standard as specified in 18 CFR 35.32(a)(3) of the Federal Energy Regulatory Commission regulations or any successor regulation thereto (the "Prudent Investor Standard"); and
- d. The Grantor, its affiliates, and its subsidiaries are prohibited from acting as investment manager for the funds or from giving day-to-day management direction of the funds' investments or direction on individual investments by the funds except that the Grantor, or an affiliate or subsidiary may act as an investment manager in the case of passive fund management of trust funds where management is limited to investment tracking market indices.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

- a. To transfer from time to time any or all of the assets of the fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- b. To purchase shares in any investment company registered under the Investment Company Act of 1940 (15 U.S.C. 80A-1 et seq.), including one that may be created, managed, underwritten, or to which investment advice is rendered, or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- a. To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale, as necessary, for prudent management of the Fund;
- b. To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- c. To register any securities held in the Fund in its own name, or in the name of a nominee, and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, to reinvest interest and dividends payments and funds from matured and redeemed instruments, to file proper forms concerning securities held in the Fund in a timely fashion with appropriate government agencies, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee or such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the U.S. Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

- d. To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee; and
- e. To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund may be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee may be paid from the Fund.

Section 10. Annual Valuation. After payment has been made into this Standby Trust Fund, the Trustee shall annually furnish to the Grantor a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value within a reasonable time of such statement. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor shall constitute a conclusively binding assent by the Grantor, barring the grantor from asserting any claim or liability against the Trustee with respect to the matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting on the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. Upon 90 days notice to the Grantor, the Trustee may resign; upon 90 days notice to the Trustee, the Grantor may replace the Trustee; but such resignation or replacement shall not be effective until the Grantor has either appointed a successor Trustee and this successor accepts the appointment or implements another financial assurance mechanism specified in Title 10, Chapter I, Code of Federal Regulations, Section 50.75(e). The successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor Trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor Trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor Trustee or for instructions. The successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are signatories to this agreement or such other designees as the Grantor may designate in writing. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. If the NRC or State agency issues orders, requests, or instructions to the Trustee in the event of Grantor default, these shall be in writing, signed by the NRC, State agency, or their designees, and the Trustee shall act and shall be fully protected in acting, in accordance with

such orders requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor, the NRC, or State agency, hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the NRC, or State agency, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee and, if applicable, the NRC or State agency, or by the Trustee and the NRC or State agency if the Grantor ceases to exist. Notwithstanding any provision herein to the contrary, this Agreement cannot be modified in any material respect without first providing 30 working days prior written notice to the NRC's Director of the Office of Nuclear Reactor Regulation or the Director of the Office of Nuclear Material Safety and Safeguards, as applicable. This Agreement may not be amended if the trustee receives written notice of objection from the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Materials Safety and Safeguards, as applicable, within the notice period.

Section 16. Termination. This trust agreement shall continue until terminated at the written agreement of the Grantor, the Trustee and, if applicable, the NRC or State agency, or by the Trustee and the NRC or State agency if the grantor ceases to exist. Upon termination of the trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor or its successor, or transferred to another financial assurance mechanism specified in 10 CFR 50.75(e), as appropriate.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this trust, or in carrying out any directions by the Grantor, the NRC, or State agency, issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the trust fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of (insert name of State).

Section 19. Interpretation and Severability. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement. If any part of this agreement is invalid, it shall not affect the remaining provisions which will remain valid and enforceable.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by the respective officers duly authorized and the incorporate seals to be hereunto affixed and attested as of the date first written above.

ATTEST:

Calvert Cliffs 3 Nuclear Project, LLC  
(Signature of representative of Grantor)  
(Title)



(Title)

(Seal)

ATTEST:

(Insert name of Trustee)

(Signature of representative of Trustee)

(Title)

(Title)

(Seal)

**A-2 EXAMPLE CERTIFICATE OF EVENTS**

(Insert name and address of trustee)

Attention: Trust Division

Gentlemen:

In accordance with the terms of the Agreement with you dated \_\_\_\_\_, we, \_\_\_\_\_, (Authorized Officers) of Calvert Cliffs 3 Nuclear Project, LLC, hereby certify that the following events have occurred:

1. Calvert Cliffs 3 Nuclear Project, LLC has begun the decommissioning of Calvert Cliffs Nuclear Power Plant Unit 3 located at the Calvert Cliffs Nuclear Power Plant site in Lusby, Maryland (hereinafter called the decommissioning). |
2. The plans and procedures for the commencement and conduct of the decommissioning have been noticed and approved by the U.S. Nuclear Regulatory Commission, or its successor, on \_\_\_\_\_ (copy of approval attached).
3. The Member of Calvert Cliffs 3 Nuclear Project, LLC has adopted the attached resolution authorizing the commencement of the decommissioning. |

\_\_\_\_\_  
(Authorized Officer)

Calvert Cliffs 3 Nuclear Project, LLC |

\_\_\_\_\_  
Date

**A-3      EXAMPLE CERTIFICATE OF RESOLUTION - CALVERT CLIFFS 3 NUCLEAR PROJECT**

I, \_\_\_\_\_, do hereby certify that I am (Authorized Officer) of Calvert Cliffs 3 Nuclear Project, LLC, a Maryland limited liability company, and that the resolution listed below was duly adopted at a meeting of this Company's member on \_\_\_\_\_, 20 \_\_\_\_.

IN WITNESS WHEREOF, I have hereunto signed my name and affixed the seal of this Company this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
(Authorized Officer)

RESOLVED, that UniStar Project Holdings, LLC and GSS Holdings (CCNP 3), Inc. hereby authorizes the President, or such other employee of the Company as he may designate, to commence decommissioning activities at Calvert Cliffs Nuclear Power Plant Unit 3 in accordance with the terms and conditions described to the Company's members at this meeting and with such other terms and conditions as the President shall approve with and upon the advice of Counsel.

**A-4      EXAMPLE ACKNOWLEDGMENT** |

## ACKNOWLEDGMENT

(The following is an example of the acknowledgment that should accompany the trust agreement for a standby trust fund or trust fund.)

STATE OF \_\_\_\_\_

To Wit \_\_\_\_\_

CITY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, before me, a notary public in and for the city and State aforesaid, personally appeared \_\_\_\_\_, and she/he did depose and say that she/he is the (title), of (financial institution), Trustee, which executed the above instrument; and that she/he signed her/his name thereto by like order.

\_\_\_\_\_  
(Signature of notary public)

My Commission Expires: \_\_\_\_\_ (Date)

**Enclosure 3**

**Calvert Cliffs Nuclear Power Plant, Unit 3,  
COLA Part 2, Final Safety Analysis Report, Appendix 1A  
Negation Action Plan**

**(NON- PROPRIETARY)**

**FSAR: Chapter 1.0, Appendix 1A**

**Calvert Cliffs  
Nuclear Power Plant  
Unit 3**

**Negation Action Plan**

**Foreign Ownership, Control  
or Domination**

Rev. 0  
January 2011

## **Table of Contents**

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
<b>2.0</b>	<b>Governance of UniStar Nuclear Energy, LLC .....</b>	<b>2</b>
<b>2.1</b>	<b>Board of Directors .....</b>	<b>2</b>
<b>2.2</b>	<b>Security Subcommittee.....</b>	<b>3</b>
<b>2.2</b>	<b>Executive Personnel.....</b>	<b>6</b>
<b>2.3</b>	<b>Nuclear advisory Committee.....</b>	<b>7</b>
<b>3.0</b>	<b>Summary .....</b>	<b>9</b>
<b>4.0</b>	<b>Implementing Documents .....</b>	<b>10</b>

## **1A      NEGATION ACTION PLAN**



**1A.1 INTRODUCTION**

- (a) The following Negation Action Plan (the Plan) provides requirements and guidance to ensure negation of potential foreign ownership, control or domination (FOCD) over the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 licenses held by Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC. This Plan implements measures to fully negate FOCD with respect to matters involving the nuclear safety, security, and reliability of CCNPP Unit 3 throughout the design, construction and operation of CCNPP Unit 3. The same measures negate potential foreign influence.
- (b) The Plan describes the controls implemented to assure that the governance of UniStar Nuclear Energy, LLC (UNE) and the licensed activities undertaken by Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC are not subject to FOCD within the meaning 10 CFR 50.38 and Section 103.d of the Atomic Energy Act of 1954, as amended (Section 103.d of the Act).
- (c) This Plan has been developed using the guidance provided by the NRC's "Final Standard Review Plan on Foreign Ownership, Control, or Domination," 64 FR 52355 (September 28, 1999) (FOCD SRP). Defense in depth is provided through a number of measures in order to ensure that there is U.S. control over matters relating to nuclear safety, security and reliability, including most significantly the UNE security programs and UNE safety programs, including Quality Assurance. These measures effectively negate the risk that UNE's foreign owned parent companies might exercise control, domination, or influence over matters that are required to be under U.S. control pursuant to the terms of 10 CFR 50.38 and Section 103.d of the Act.
- (d) UNE owns and controls both UniStar Nuclear Operating Services, LLC and Calvert Cliffs 3 Nuclear Project, LLC, as well as intermediary subsidiaries and other UNE subsidiaries involved in the development of CCNPP Unit 3. UniStar Nuclear Operating Services, LLC is responsible for the operation of CCNPP Unit 3. Calvert Cliffs 3 Nuclear Project, LLC owns CCNPP Unit 3 and is responsible for providing the funding for construction, operation and decommissioning of CCNPP Unit 3.
- (e) The negation measures are implemented primarily through the terms of the Second Amended and Restated Limited Liability Company Agreement of UniStar Nuclear Energy, LLC (the UNE LLC Agreement) dated as of November 3, 2010. Additional requirements and further details regarding implementation of the negation measures are included in this Plan. These measures flow through to the actions of the licensee subsidiaries, which are subject to the ultimate control and direction of UNE. Each licensee subsidiary and intermediary subsidiary is a limited liability company managed by its members (in the case of Calvert Cliffs 3 Nuclear Project, LLC) or its member (in the case of all other subsidiaries), and not a Board, with the effect that UNE personnel are responsible for managing the affairs of the licensee subsidiaries.
- (f) The terms of the UNE LLC Agreement provide that a Security Subcommittee of the UNE Board has the exclusive right to exercise the Board's authority over the matters that are required to be under U.S. control. The Security Subcommittee is made up of U.S. citizens, the majority of whom must be independent directors, who are not employed by UNE, its parent companies or any of their affiliates. In addition, a Nuclear Advisory Committee (NAC), that is made up of a group of independent U.S. citizens who are experienced in national security and nuclear safety matters, provide an oversight function to advise UNE regarding its ongoing compliance with the FOCD

restrictions imposed by U.S. law and NRC regulation. If necessary, the NAC can alert the U.S. Government regarding issues involving potential non-compliance with the applicable requirements.

- (g) UNE's security programs, including its Safeguards Information Program, assure that only authorized persons are provided access to security related information in accordance with applicable program requirements, and this Plan provides measures to assure that interpretation and implementation of those program requirements are administered under U.S. control. UNE does not possess or control access to restricted data or classified national security information. Rather, it has certain personnel who have obtained security clearances through the U.S. Nuclear Regulatory Commission. These personnel provide contract services to UNE, and they have obtained their security clearances through their employer companies. Thus, to the extent that these personnel may possess or control any restricted data or classified national security information now or in the future, they do so or would do so subject to the requirements of security programs controlled by their employer companies and not controlled by UNE. UNE will not interfere with the administration of such programs by other companies, and UNE will require that its personnel comply with all applicable requirements relating to such information.
- (h) Upon acceptance of this Plan, changes to this Plan may only be made upon the recommendation of UNE's Chief Executive Officer (CEO) and approval of the UNE Security Subcommittee. However, any proposed change that would result in a decrease in the effectiveness of this Plan will not be implemented without the prior approval of the NRC. This Plan also will be subject to the reporting requirements applicable to the FSAR.
- (i) Certain FOCD negation measures described in this Plan have been implemented in the UNE LLC Agreement, because it provides for the governance of UNE. UNE will notify NRC prior to implementing any material changes to the FOCD negation measures in the UNE LLC Agreement.

**1A.2 GOVERNANCE OF UNISTAR NUCLEAR ENERGY, LLC**

- (a) UNE is a single member limited liability company, owned by EDF Inc., which is a Delaware corporation (formerly known as EDF Development, Inc.). EDF Inc. is a wholly owned subsidiary of EDF International, S.A., which in turn is wholly owned by Électricité de France, S.A. (EDF). EDF is a Société Anonyme organized under the laws of France and is governed by a Board of Directors. EDF is a public company listed on the NYSE-Euronext Paris stock exchange. As of January 1, 2011, the French State held approximately 84.5 percent of the shares of EDF and is the only shareholder with an interest greater than 5 percent. It holds its shares through the Agence des Participations de l'Etat (APE), the French Government Shareholding Agency within the French Ministry of Economy. Members of the public, including institutional investors and individual shareholders, own approximately 13.1 percent of EDF's shares, while employees own approximately 2.4 percent.

**1A.2.1 UNE BOARD OF DIRECTORS**

- (a) The business and affairs of UNE are and will be managed under the direction of a Board of Directors (Board), consisting of eight directors (including a director to act as Chairman), who are appointed by EDF Inc. The Chairman presides over the meetings of the Board, and in his absence, the CEO presides over Board meetings and otherwise fulfills the functions of the Chairman. The Chairman, and anyone acting for the Chairman, must be a U.S. citizen. All directors are appointed for a one year term, ending January 31 of each calendar year. However, directors may be reappointed year after year.
- (b) The UNE LLC Agreement also provides that two of eight directors appointed must be independent directors, who are U.S. citizens. These directors are independent because they may not be officers or employees of UNE, or EDF Inc. or any of its affiliated companies, and neither the directors nor their immediate family members have a material relationship with UNE or its parent companies, such as by being an executive officer or employee, by receiving pension benefits or other compensation for prior service, or by being an executive officer of another company that receives significant revenue from UNE or its affiliates. In accordance with generally accepted practices, the independent directors receive compensation from UNE for their services as directors.
- (c) If any independent director acquires any material ownership or other economic interest in EDF or its affiliated companies, this will be reported to UNE and to the NRC. It is possible that independent directors may have investment holdings such as in mutual funds or other similar types of pooled investments that themselves may make a wide range of investments that could include investments in issuances of EDF. Given the impracticality of monitoring and/or limiting such investments, it is UNE's intention that such investments would not be considered "material." Direct holdings in securities, bonds or other issuances of EDF or its affiliates would be considered material and reportable.
- (d) Significantly, the Chairman and the two independent U.S. citizen directors serve on a Security Subcommittee, which has been assigned "exclusive authority" to vote upon and decide for the Board matters relating to nuclear safety, security or reliability. The details of this authority are described further below in Section 2.2 of this Plan.
- (e) The Board has reserved authority for itself to decide various matters, notwithstanding any delegations of authority to the CEO and other officers. Ordinarily, the Board as a

whole would decide these matters which are listed in Section 3.1(g) of the UNE LLC Agreement. However, this reserved authority is itself subject and subordinate to the exclusive authority of the Security Subcommittee. Thus, if U.S. control must be exercised over a Section 3.1(g) matter, such matter would be decided by the Security Subcommittee.

- (f) The Board also has delegated significant authority to the CEO, and the details of this authority are described further below in Section 2.3 of this Plan. It also benefits from the advice and oversight of the members of the Nuclear Advisory Committee, who have substantial expertise in national security and nuclear safety matters, the details of which are described further below in Section 2.4 of this Plan.

#### **1A.2.2 SECURITY SUBCOMMITTEE**

- (a) The UNE LLC Agreement provides for a broad delegation of exclusive authority to the Security Subcommittee, in order to assure that the U.S. citizen directors, including the Security Subcommittee's majority of independent directors, have the ultimate authority to make the corporate decisions for UNE regarding: (1) any matter that is to be brought before the Board, where U.S. legal and regulatory requirements direct that the matter must be decided under U.S. control; or (2) any matter that ordinarily might be decided by corporate officers, but where there is a concern that decision-making regarding the matter may be subject to foreign control or influence, and U.S. legal and regulatory requirements direct that the matter must be decided under U.S. control. The Board and Security Subcommittee delegate authority over the day-to-day management of the affairs of UNE to its executive personnel. However, as discussed further below, the UNE governance is structured to ensure that the required U.S. control over matters of safety, security and reliability are not circumvented by having such issues decided without consultation with and oversight by the Security Subcommittee, whenever necessary.
- (b) Section 3.1(d)(iii) of the UNE LLC Agreement provides that the Security Subcommittee has and shall exercise the exclusive authority of the Board to vote and decide the following matters:
  - A. Any matter that, in view of U.S. laws or regulations, requires or makes it reasonably necessary to assure U.S. control;
  - B. Any matter relating to nuclear safety, security or reliability, including, but not limited to, the following matters:
    - 1) Implementation or compliance with any NRC generic letter, bulletin, order, confirmatory order or similar requirement issued by the NRC;
    - 2) Prevention or mitigation of a nuclear event or incident or the unauthorized release of radioactive material;
    - 3) Placement or restoration of the plant in a safe condition following any nuclear event or incident;
    - 4) Compliance with the Atomic Energy Act of 1954 (as in effect from time to time), the Energy Reorganization Act of 1974 (as in effect from time to time), or any NRC rule;
    - 5) The obtaining of, or compliance with, a specific license issued by the NRC and its technical specifications;

- 6) Conformance with a specific Final Safety Analysis Report, or other licensing basis document; and
  - 7) Implementation of security plans and procedures, control of security information, control of special nuclear material, administration of access to controlled security information, and compliance with government clearance requirements regarding access to restricted data;
  - C. Any other issue reasonably determined by a majority of the members of the Security Subcommittee in office, in their prudent exercise of discretion, to be an exigent nuclear safety, security or reliability issue; and
  - D. Appointment of any successor CEO of the Company and, if one is appointed, Chief Nuclear Officer of the Company, in each case as nominated by the Board.
- (c) The provisions of Section 3.1(d)(iii)(C) make clear that this broad authority includes the authority for the Security Subcommittee to decide that a matter involves an issue that must be decided under U.S. control and therefore must be brought before and decided by the Security Subcommittee.
- (d) In order to assure that control would be exercised by U.S. citizens who are independent from EDF Inc. and its affiliated companies, Section 3.1(d)(iv) of the UNE LLC Agreement provides that the attendance and participation of the two independent U.S. citizen directors is required to constitute the required quorum for the Security Subcommittee to conduct business.
- (e) The ordinary affairs of UNE are managed day-to-day by the company's executive personnel and managers and supervisors. The Board and the Security Subcommittee have delegated authority to the company's executive personnel, but such delegation is subject to limitations including the ultimate authority of the Board and the Security Subcommittee to make decisions for UNE when necessary. In order to assure that such day-to-day issues do not fall subject to FOCD in a way that would circumvent the intended U.S. control and authority of the Security Subcommittee, the UNE LLC Agreement provides for a variety of mechanisms by which such issues could be raised and put before the Security Subcommittee, if necessary. Section 3.1(d)(v) of the UNE LLC Agreement provides that a Special Meeting of the Security Subcommittee shall be conducted where a request is made that a matter be considered by the Security Subcommittee. Such a request (requiring a Special Meeting for consideration of the matter) may be made by: (A) the CEO; (B) any member of the Security Subcommittee; (C) the NAC; or (D) the Board.
- (f) Thus, if a circumstance were to arise where an officer or manager had questions about potential foreign control, domination or influence over a matter, the issue could simply be raised within the UNE organization for further review and consideration. Ultimately, the CEO would be in a position to assess whether the matter was being properly decided free from any inappropriate foreign control, domination or influence, or if the concern should be referred so that the matter would be brought before the Security Subcommittee. The CEO's role in this regard is described further below in Section 2.3.
- (g) In order to underscore the special role undertaken by the Security Subcommittee, the UNE LLC Agreement provides that each member execute a certificate acknowledging the protective measures undertaken by UNE, as reflected in this Plan. The certificate provides as follows:

By execution of this Certificate, I acknowledge the protective measures that have been taken by UniStar Nuclear Energy LLC ("UNE") through adoption and implementation of the provisions of Section 3.1(d) of its Second Amended and Restated Limited Liability Company Agreement dated as of November 3, 2010 ("Agreement"), in order to protect against and negate the potential of any foreign ownership, control or domination of UNE within the meaning of Section 103 of the Atomic Energy Act of 1954, as amended.

I further acknowledge that the United States Government has placed its reliance on me as a United States citizen to exercise all of the responsibilities provided for in Section 3.1(d) of the Agreement; to assure that members of the UNE Board of Directors, the officers of UNE, and the employees of UNE comply with the provisions of the Section 3.1(d) of the Agreement; and to assure that the Nuclear Regulatory Commission is advised of any violation of, attempt to violate, or attempt to circumvent any of the provisions of Section 3.1(d) of the Agreement, of which I am aware.

- (h) Each of the current members of the Security Subcommittee has executed the required certificate. In addition, the terms of the UNE LLC Agreement provided in Section 3.1(d)(i) that the CEO would exercise the authority of the Security Subcommittee during an interim period that began on November 3, 2010. The CEO at that time, George Vanderheyden, therefore executed a certificate substantially similar to the certificates executed by the members of the Security Subcommittee, and he was delegated with the authority of the Security Subcommittee until the independent directors were appointed and Security Subcommittee held its first meeting on December 3, 2010. Although the CEO is not a member of the Security Subcommittee, under this Plan UNE will require that any successor CEO also execute a similar certificate acknowledging the CEO's special role and special duties to the U.S. government regarding FOCD matters.

### 1A.2.3 EXECUTIVE PERSONNEL

- (a) The CEO of UNE is nominated by the Board, but both the CEO and Chief Nuclear Officer (CNO) must be approved by the Security Subcommittee in accordance Section 3.1(d)(iii)(D) of the LLC Agreement. The CEO, and anyone acting for the CEO, must be a U.S. citizen. The CEO may be, but need not be, a director. Currently, the CEO is the CNO, and therefore, the CNO is a U.S. citizen. In the future, if the CNO were a person other than the CEO, this Plan requires that the CNO also be a U.S. citizen.
- (b) Section 3.2(b) of the UNE LLC Agreement provides that, subject to the control of the Board, the CEO "shall have general charge and control of all [of UNE's] business and affairs and shall have all the powers and shall perform all of the duties incident to the office of CEO." To the extent authority regarding the affairs of UNE is further delegated by the Board to the CEO and other executive personnel, the CEO assures that U.S. control is maintained over nuclear safety, security and reliability issues. UNE programs governing security issues, safeguards information, or access to security information are overseen by U.S. citizen managers who report to the CEO. Access and participation in these programs by foreign persons are only be permitted in full compliance with all program requirements, and oversight of these programs and determinations regarding such requirements are and will be subject to U.S. authority and control, because the CEO exercises management authority over such programs, subject only to the ultimate authority of the Security Subcommittee.

- (c) In addition, the CNO ensures U.S. control and oversight of nuclear safety issues through control of the Quality Assurance (QA) Program. Currently, the CEO and CNO are the same person. If the CNO were a different person, the CNO would report directly to and be responsible to the CEO. Through QA audits UNE assures that contractors and subcontractors to it and its subsidiaries conduct nuclear safety related activities in accordance with the QA Program, without regard to whether such activities are undertaken by U.S. citizens or by foreign persons, and without regard to whether such activities are performed within the United States or in another country. The requirements of the QA Program assure that all activities are performed consistent with U.S. requirements imposed upon a licensee or applicant for a license. The QA Program also governs activities internal to UNE and its subsidiaries or affiliates. As such, overall control of the QA Program and imposition of QA Program requirements as required by U.S. law and regulation assures that ultimate U.S. control over nuclear safety is maintained without regard to where activities are performed or who performs them.
- (d) In the event that any foreign control, domination or influence may be exercised with the potential to disrupt this U.S. control over nuclear safety, security and reliability issues, the CEO would assure U.S. control by taking one or more of the following actions: (1) raising the U.S. control issue with the foreign persons involved and resolving the matter to the satisfaction of the CEO; (2) consulting with the NAC to obtain advice regarding whether or not U.S. control is required and, if so, regarding the appropriate options to consider for resolving the matter consistent with the requirements of the U.S. government; and (3) referring the matter for resolution by the Security Subcommittee. If a matter is referred to the Security Subcommittee by the NAC or the CEO, Section 3.1(d)(v) of the UNE LLC Agreement requires that the Security Subcommittee conduct a special meeting to consider the matter. It is expected that the Security Subcommittee would first decide whether or not the matter is one that must be decided under U.S. control and, if so, the Security Subcommittee would vote and decide the matter for the UNE Board.
- (e) The CEO and certain other UNE personnel currently maintain security clearances with the U.S. government, which authorize their access to certain classified national security information under certain circumstances. These security clearances are maintained through other companies, which maintain and control their existing programs to assure compliance with applicable U.S. security requirements and restrict access to such information to only those persons who have been specifically cleared by the U.S. government. The actions of the personnel involved and possession and control of such classified information is controlled by such other companies and their applicable programs. These programs are not controlled by UNE, but rather the companies that control these programs are subject to ongoing oversight by the U.S. government regarding control of these programs free from foreign control, domination or influence. UNE will assure that its personnel comply with all applicable requirements, and it will not provide any direction to its personnel that conflict with their applicable obligations to other companies and their programs regarding such classified information.
- (f) In the future, if it becomes necessary or desirable for UNE to maintain its own independent Facility Security Clearance for purposes of governing security clearances to be issued to UNE personnel, UNE would undergo appropriate security reviews prior to being given control (as a corporation) over restricted data or classified national security information. UNE would comply with the requirements of

the National Industrial Security Operating Manual, DoD 5220.22-M (February 28, 2006), including the specific applicable requirements relating to foreign ownership, control and influence (FOCI) and submission of the required "Certificate Regarding Foreign Interests" using Standard Form 328 (SF 328). Currently, however, UNE does not exercise any control over access to restricted data or classified national security information.

#### **1A.2.4 NUCLEAR ADVISORY COMMITTEE**

- (a) Since December 2005, UNE and its subsidiaries have benefitted from the oversight of the Nuclear Advisory Board, which was renamed the Nuclear Advisory Committee ("NAC") in November 2010. The NAC members serve in a non-voting capacity to provide transparency to the NRC and other U.S. governmental authorities regarding FOCD matters impacting UNE. The NAC members serve two year terms and may be reappointed by the Board. In addition to routine advice, the NAC members prepare an annual report to the Board advising on whether UNE is subject to FOCD and whether the Security Subcommittee has been able to exercise its decision-making authority. The NAC also advises whether additional measures should be taken to ensure that UNE and its subsidiaries are in compliance with U.S. laws and regulations regarding FOCD. These reports are available for inspection by the U.S. Nuclear Regulatory Commission.
- (b) UNE has adopted a Charter for the NAC, and the Charter itself has been reviewed from time to time to include revisions and improvements upon the advice of the NAC. The principal purposes of the NAC are to:
  - ◆ Provide transparency to the U.S. Nuclear Regulatory Commission and other U.S. government authorities regarding the implementation of the provisions of Section 3.1(d) of UNE LLC Agreement providing for authority of the Security Subcommittee over certain matters in order to protect against and negate the potential for any foreign ownership, control or domination of UNE within the meaning of Section 103 of the Atomic Energy Act of 1954, as amended.
  - ◆ Advise and make recommendations to the Board whether measures additional to those already in place should be taken to ensure that: (i) UNE is in compliance with U.S. laws and regulations regarding foreign ownership, control, domination or influence including those related to non-proliferation and fuel cycle matters, and (ii) action by a foreign government or foreign corporation could not adversely affect or interfere with the reliable and safe operations of the nuclear assets of the UNE, its subsidiaries, and affiliates ("i)" and "(ii)" collectively, the "FOCD Matters"), and to provide reports and supporting documentation to the Board relating to such FOCD Matters on at least an annual basis, no later than November 30 of each year.
- (c) The NAC provides ongoing independent assessment of FOCD matters and provides advice to the CEO and the Board regarding FOCD matters. The NAC is available for consultations with the CEO or Security Subcommittee members at any time. However, the NAC also conducts regularly scheduled meetings not less frequently than quarterly.
- (d) As of January 1, 2011, the members of the NAC, all of whom are U.S citizens serving two year terms that commenced on January 1, 2011, are as follows:



John Gordon (Chairman)  
James K. Asseltine  
Richard A. Meserve  
John J. Hamre  
Robert I. Hanfling

- (e) The NAC members have substantial expertise in national security and nuclear safety matters are a valuable resource to UNE and its senior management in assuring compliance with FOCD requirements. In addition, the same members of the NAC also serve as a NAC for CENG and bring this experience as an additional benefit to the NAC functions for UNE.

**1A.3 SUMMARY**

- (a) This Plan includes a robust set of mechanisms that provide defense in depth to assure that UNE and its licensee subsidiaries are governed through U.S. control over nuclear safety, security and reliability matters, so that no such entity either is or is expected in the future to be under FOCD within the meaning of 10 CFR 50.38 and Section 103.d of the Act. Under the terms of the UNE LLC Agreement, the ultimate decision making authority of UNE regarding nuclear safety, security and reliability matters has been delegated to the Security Subcommittee, which itself is controlled by independent U.S. citizen directors.
- (b) Recognizing that day to day decision making is delegated to executive personnel, the Plan contemplates that a U.S. citizen CEO will assure U.S. control over matters that require U.S. control. The Plan includes a requirement that the CEO acknowledge a special duty to the U.S. government. In addition, the appointment of any successor CEO must be approved by the Security Subcommittee, which provides additional assurance that the CEO will function as part of the team of U.S. citizens exercising a special duty to the U.S. government to assure compliance with respect to FOCD matters. Significantly, the CEO has access to the expert advice and resources of the NAC and has been given specific authority to refer a matter to the Security Subcommittee, requiring that Security Subcommittee consider the matter in a Special Meeting. This assures that even though matters may be delegated to executive personnel, influence over delegated matters cannot be used to circumvent the requirement for U.S. control and the ultimate authority of the Security Subcommittee.
- (c) Finally, the NAC performs an ongoing monitoring function to assess FOCD issues and surface any potential concerns regarding FOCD matters. In addition, the expert resources of the NAC provide a pathway for continuous enhancement and improvement of the mechanisms to assure that any potential inappropriate FOCD is negated. This ongoing role provides further assurance that the required U.S. control of UNE and of the NRC licenses is maintained consistent with the provisions of 10 CFR 50.38 and Section 103.d of the Act.

**1A.4 IMPLEMENTING DOCUMENTS**

- 4.1** Calvert Cliff Nuclear Power Plant, Unit 3, Negation Action Plan, dated January 2011.
- 4.2** Calvert Cliff Nuclear Power Plant, Unit 3, COLA Part 1 – Administrative and Financial Information, Section 1.4
- 4.3** Calvert Cliff Nuclear Power Plant, Unit 3, COLA Part 2, FSAR, Section 1.4.1
- 4.4** Second Amended and Restated Limited Liability Company Agreement of UniStar Nuclear Energy, LLC, dated as of November 3, 2010.
- 4.5** First Amended and Restated Charter, Independent Nuclear Advisory Committee, UniStar Nuclear Energy, LLC, approved December 14, 2010
- 4.6** Certificates of Steve Wolfram, Bruce Mallett, Neil Todreas, and George Vanderheyden

**Enclosure 4**

**Calvert Cliffs Nuclear Power Plant, Unit 3,  
COLA Part 2, Final Safety Analysis Report  
Page Markups**

**(NON- PROPRIETARY)**

## **1.4 IDENTIFICATION OF AGENTS AND CONTRACTORS**

This section of the U.S. EPR FSAR is incorporated by reference with the following supplements.

### **1.4.1 Applicant – Program Manager**

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC are applying for a combined license for CCNPP Unit 3. The owner of the proposed project is Calvert Cliffs 3 Nuclear Project, LLC. The operator of the proposed project is UniStar Nuclear Operating Services, LLC. The contact with the NRC during the licensing process is UniStar Nuclear Energy, LLC. UniStar Nuclear Energy, LLC owns and controls Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC. The measures taken to address the potential for foreign, ownership domination, control or influence of UniStar Nuclear Energy, LLC are addressed in the Negation Action Plan provided as Appendix 1A.

Sections 1.4.1.1 and 1.4.1.2 are added as supplements to the U.S. EPR FSAR.

#### **1.4.1.1 Calvert Cliffs 3 Nuclear Project, LLC**

Calvert Cliffs 3 Nuclear Project, LLC is a limited liability company and is an indirect subsidiary (through UniStar Nuclear Holdings, LLC and UniStar Project Holdings, LLC, which operate as holding companies) of UniStar Nuclear Energy, LLC. UniStar Nuclear Energy is owned by EDF, Inc. EDF Inc. is an indirect subsidiary of (through E.D.F. International SA) of Électricité de France SA.

The principal offices of Calvert Cliffs 3 Nuclear Project, LLC are located in Baltimore, Maryland. Calvert Cliffs 3 Nuclear Project, LLC is organized under the laws of the State of Delaware pursuant to the First Amended and Restated Operating Agreement of Calvert Cliffs 3 Nuclear Project, LLC dated April 22, 2010 by UniStar Project Holdings, LLC and GSS Holdings (CCNP 3), Inc. Calvert Cliffs 3 Nuclear Project, LLC will be one of the licensees and will own CCNPP Unit 3.

#### **1.4.1.2 UniStar Nuclear Operating Services, LLC**

UniStar Nuclear Operating Services, LLC has been formed to be a licensee and to operate U.S. EPR nuclear power plants in the United States. The principal offices of UniStar Nuclear Operating Services, LLC are located in Baltimore, Maryland.

UniStar Nuclear Operating Services, LLC is organized under the laws of the State of Delaware pursuant to the First Amended and Restated Operating Agreement of UniStar Nuclear Operating Services, LLC dated January 12, 2011 by UniStar Nuclear Holdings, LLC. This entity will be one of the licensees for, and will provide the operating services for, CCNPP Unit 3.

### **1.4.2 Other Contractors and Participants**

The U.S. EPR FSAR includes the following COL Item in Section 1.4.2:

A COL applicant that references the U.S. EPR design certification will identify the prime agents or contractors for the construction and operation of the nuclear power plant.

This COL Item is addressed as follows:

Design responsibility for the U.S. EPR nuclear power plant resides with AREVA NP Inc. (AREVA NP) for the portions of the facility included in the design certification application. AREVA NP has headquarters in Lynchburg, Virginia, and major design organizations in Lynchburg,

This area will be conspicuously posted and administrative procedures, including security patrols will be imposed to control access to the area. Section 2.1.2.1 provides additional discussion regarding the control of access to the EAB.

## **2.1.2 Exclusion Area Authority and Control**

Sections 2.1.2.1 through 2.1.2.4 are added as a supplement to the U. S. EPR FSAR.

### **2.1.2.1 Authority**

The CCNPP site was originally comprised of a number of parcels which were recombined and subdivided into a north parcel and a south parcel. The owner of the north parcel, which includes the CCNPP Units 1 and 2, is Calvert Cliffs Nuclear Power Plant, LLC (a Constellation Energy Nuclear Group, LLC company). The owners of the south parcel, which includes CCNPP Unit 3, are Calvert Cliffs 3 Nuclear Project, LLC, and other UniStar Nuclear Energy, LLC subsidiaries. This division is shown on Figure 2.1-6. Calvert Cliffs 3 Nuclear Project, LLC, UniStar Nuclear Energy, LLC subsidiaries, and Calvert Cliffs Nuclear Power Plant, LLC, for their respective parceled areas within the CCNPP Unit 3 EAB, own the land, including mineral rights. These areas exclude the portion that extends into the Chesapeake Bay. Calvert Cliffs 3 Nuclear Project, LLC, UniStar Nuclear Energy, LLC, and Calvert Cliffs Nuclear Power Plant, LLC, for their respective parceled areas within the CCNPP Unit 3 EAB, possess the authority to determine all activities including the exclusion and removal of personnel and property. Calvert Cliffs 3 Nuclear Project, LLC, UniStar Nuclear Energy, LLC, and Calvert Cliffs Nuclear Power Plant, LLC, for their respective parceled areas within the CCNPP Unit 3 EAB, will exercise dominion and control in the event of an emergency to afford protection of public health and safety. Control of access to the CCNPP Unit 3 EAB within the CCNPP site boundary is provided by posting the boundary and performing security patrols.

Access to the portion of the CCNPP Unit 3 EAB that extends into the Chesapeake Bay will be controlled through the use of buoys with postings that define the restrictions for the area. The United States Coast Guard (USCG) installs and maintains these buoys for the CCNPP site. The access restrictions for the portion of the CCNPP Unit 3 EAB that extends into the Chesapeake Bay are enforced by the USCG and the Maryland Department of Natural Resources police.

### **2.1.2.2 Control of Activities Unrelated to Plant Operations**

No activities unrelated to plant operation are planned within the CCNPP Unit 3 EAB. No person or entity can reside, build, or conduct other activities without approval from Calvert Cliffs 3 Nuclear Project, LLC, UniStar Nuclear Operating Services, LLC, and Calvert Cliffs Nuclear Power Plant, LLC for their respective parceled areas within the CCNPP Unit 3 EAB. However, in the event that an activity unrelated to plant operation is conducted within the CCNPP Unit 3 EAB, plant security will be notified prior to commencement of the activity to ensure that all individuals engaged in the activity may be evacuated in the event of an emergency.

### **2.1.2.3 Arrangements for Traffic Control**

No state or county roads or railways traverse the CCNPP Unit 3 EAB. The waters of the Chesapeake Bay are the only public thoroughfare that traverses the EAB. The USCG and the Maryland Department of Natural Resources police enforce the access restrictions for the portion of the CCNPP Unit 3 EAB that extends into the Chesapeake Bay. The major shipping lane of the Chesapeake Bay lies outside of the CCNPP Unit 3 EAB.

### 13.1 ORGANIZATIONAL STRUCTURE OF APPLICANT

This section of the U.S. EPR FSAR is incorporated by reference with the following supplements.

The U.S. EPR FSAR includes the following COL Item in Section 13.1:

A COL applicant that references the U.S. EPR design certification will provide site-specific information for management, technical support and operating organizations. The operating organization describes the structure, functions and responsibilities established to operate and maintain the plant.

This COL Item is addressed as follows:

The organizational structure, functional responsibilities, and levels of authority and interfaces are described in the following sections including the offsite and onsite functions.

Implementing documents assign more specific responsibilities and duties, and define the organizational interfaces involved in conducting activities and duties.

The organizational structure is consistent with the Human System Interface (HSI) design assumptions used in the design of the U.S. EPR as described in the U.S. EPR FSAR Chapter 18.

Sections 13.1.1 through 13.1.4 are added as a supplement to the U.S. EPR FSAR.

#### 13.1.1 Management and Technical Support Organization

{Calvert Cliff 3 Nuclear Project, LLC, is a Delaware limited liability company developing the Calvert Cliffs Nuclear Power Plant Unit 3 (CCNPP Unit 3). UniStar Nuclear Operating Services, LLC will serve as the operator of CCNPP Unit 3 and is the Operator Licensee.

Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC are owned by EDF Inc., which is an indirect subsidiary (through E.D.F. International S.A.) of Électricité de France, S. A. (EDF). Calvert Cliffs 3 Nuclear Project, LLC, as the owner and licensee, will develop and operate CCNPP Unit 3 through contractual relationships with UNE and its affiliates (see Figure 13.1-1).

EDF, as the parent organization of UNE has significant experience in the design, construction, and operation of commercial nuclear power facilities in France. EDF operates fifty-eight nuclear plants in France and is currently constructing a fifty-ninth (59) unit (the second Evolutionary Power Reactor (EPR) world-wide) at Flamanville, France.

The roles of Nuclear Steam Supply System (NSSS) designer/supplier and architect engineer (AE) are combined in a Project Delivery Consortium (Consortium) formed by the collaboration of AREVA NP (AREVA) and Bechtel Power Corporation (Bechtel). The Consortium is complemented by the turbine-generator supplier, Alstom, a major world supplier in energy and transportation equipment. Together, the Consortium has significant experience designing and constructing commercial nuclear power projects in the U.S. and throughout the world.

Each of the organizations involved in the CCNPP Unit 3 project have excellent reputations in the power industry and have significant commercial nuclear power experience.

EDF, one of the leaders in the energy market in Europe, is an integrated energy company active in generation; transmission; distribution; energy supply; and trading. EDF has a worldwide installed capacity of 128,190 megawatts, from a wide variety of energy sources including nuclear, thermal, and renewable energies (hydroelectric, wind, solar). In France, EDF has an installed capacity of 98,200 megawatts, including fifty-eight nuclear reactors with a total installed capacity of 63,130 megawatts. The nuclear units are located on 19 sites and have been built within three standardized fleets: 34 reactors of 900 megawatts, 20 reactors of 1,300 megawatts, and four reactors of 1,450 megawatts. In December 2007, the pouring of the first concrete for an EPR in Flamanville, France launched the construction of the fourth EDF fleet series.

EDF's position as a world leader in the nuclear sector is based on its unique expertise as architect, turnkey supplier and owner-operator. EDF has developed skills throughout the energy production cycle covering a power plant's entire service life from design and construction, including associated engineering, through operation of the plant and decommissioning. As a nuclear owner-operator, EDF is recognized for its excellent safety record and is ranked as a world leader in the nuclear industry.

While UNE is a recently created entity and has not been in existence for as long as its parent organizations, its experience is comparable since it shares common personnel and management practices. CCNPP Unit 3 directly benefits from the leadership, knowledge, and experience of its parent companies, which have recruited multiple senior leadership staff and dozens of engineers and other technical experts experienced in nuclear power plant design, construction, and operation to oversee the CCNPP Unit 3 project.

#### **13.1.1.1 Design, Construction and Operating Responsibilities**

The President and Chief Executive Officer of UNE has overall responsibility for functions involving design, construction, testing, and operation of CCNPP Unit 3. The highest priority and primary responsibility of the UNE staff is nuclear safety. Decision making is conducted in a conservative manner with the emphasis on safety regularly communicated to appropriate personnel by direct management interface, training, and company directives. Lines of authority within and among the organizations having design, construction, and operating responsibilities are clearly established.

##### **13.1.1.1.1 Design and Construction Responsibilities**

UNE has engaged a Consortium to design and construct CCNPP Unit 3. The Consortium principals and their subcontractors are responsible for the site related engineering studies (such as meteorology, hydrology, seismology, demography, etc.), the design of the CCNPP Unit 3 ancillary systems (including fire protection), site layout and related environmental and security provisions, and the development of safety analysis reports. Oversight of Consortium activities, including review and approval of site design features, Human Factor Engineering



The program includes fire protection procedures and pre-fire plans, fire brigade and station personnel training, and inspections, testing, and maintenance of fire protection systems. The engineer responsible for fire protection has overall program responsibility, including fire protection system performance and monitoring. The Fire Marshall is responsible for fire brigade training and readiness, fire brigade equipment readiness, and coordination with Emergency Planning personnel for drills involving offsite response.

#### **13.1.1.1.2.10.8 Emergency Coordination**

The site emergency response organization is described in the Emergency Plan. The organization is matrixed from various site departments. Emergency Response personnel have the experience, training (including drills), and ability to implement the actions required to protect the health and safety of the public in the event of an emergency. The emergency planning staff is responsible for ensuring required numbers of qualified personnel are available to respond to plant emergencies, that emergency facilities are maintained and available, and that adequate equipment and supplies are available. Additionally, the emergency planning staff is responsible for coordination with offsite agencies participating in emergency responses (including the necessary agreements) and for coordinating onsite with the Fire Marshall for fire brigade activities.

#### **13.1.1.1.2.10.9 Outside Contractual Assistance**

In the event that specific, high levels of expertise are needed or certain skills and knowledge are better obtained under vendor contracts (such as major turbine maintenance), the services of outside consultants or contractors will be used, with proper UniStar Nuclear Operating Services, LLC oversight and control, to provide or supplement the technical staff.

#### **13.1.1.2 Organizational Arrangement**

Figure 13.1-3 shows the UNE corporate management structure. This figure delineates the relationships between the affiliated companies, including the relationship between the nuclear oriented parts to the non-nuclear parts of UNE. Figure 13.1-4 shows the UniStar Nuclear Operating Services, LLC site organization structure.

Recruiting and staffing plans are subject to change over time due to variations in construction and testing schedules and the availability of personnel for hire with the requisite qualifications. Table 13.1-1 shows the initial estimated number of positions required for each function.

Though located on a common site with CCNPP Units 1 and 2, CCNPP Unit 3 is owned and operated by separate entities. Organizations are not shared. To the extent that certain minimal resources are shared, the interaction is governed by service level agreements or other similar contractual mechanisms.

#### **13.1.1.2.1 Corporate Organization**

The framework necessary to develop, design, license, finance, contract for construction, prepare for ownership, and operate CCNPP Unit 3 is made up of a group of affiliated companies, each with clearly delineated responsibilities and lines of accountability for specific phases of the CCNPP Unit 3 project. UNE and its affiliated companies are managed as a single, cohesive entity with clear management expectations that the high levels of safety and quality are maintained throughout all phases of the project. Figure 13.1-1 shows the general relationships between UNE, its affiliated companies, and the Calvert Cliffs 3 Nuclear Project, LLC (owner licensee of CCNPP Unit 3).

maintaining standardized fleet operating procedures and programs. The Vice President - Operations Support supports plant operation and maintenance through fleet chemistry, RP, work management, maintenance, and operations personnel, including provision of fleet-wide maintenance services for standard equipment where appropriate.

#### **13.1.1.2.1.5.3 Vice President - Administrative Services**

The Vice President - Administrative Services reports to the CNO and provides fleet level non-nuclear support. Among these are financial and accounting support, human resources, corporate communications, document control, and industrial safety.

#### **13.1.1.2.1.5.4 Director - Quality and Performance Improvement**

The Director - Quality and Performance Improvement reports directly to the CNO and is responsible for developing and maintaining the quality assurance program, evaluating compliance to the program, and managing the resources providing fleet and vendor oversight. The functions associated with the corrective action program and performance improvement assessments report to this position.

During the design and construction phases, the Director - Quality and Performance Improvement provides oversight of project management and engineering and procurement activities and conducts audits and surveillances of the Consortium and other vendors and suppliers. By reporting to the CNO, the Director - Quality and Performance Improvement is completely independent of the Senior Vice President - UNE Procurement and Engineering and the Senior Vice President - Services. This reporting arrangement also ensures independence from the UniStar Nuclear Operating Services, LLC corporate organization structure and the site structure under the Site Vice President.

#### **13.1.1.2.1.5.5 Site Vice President - CCNPP Unit 3**

This onsite position reports to the CNO and is described in Section 13.1.2.2.1.

#### **13.1.1.2.2 Relationship of Nuclear Organization to the Non-Nuclear Organization**

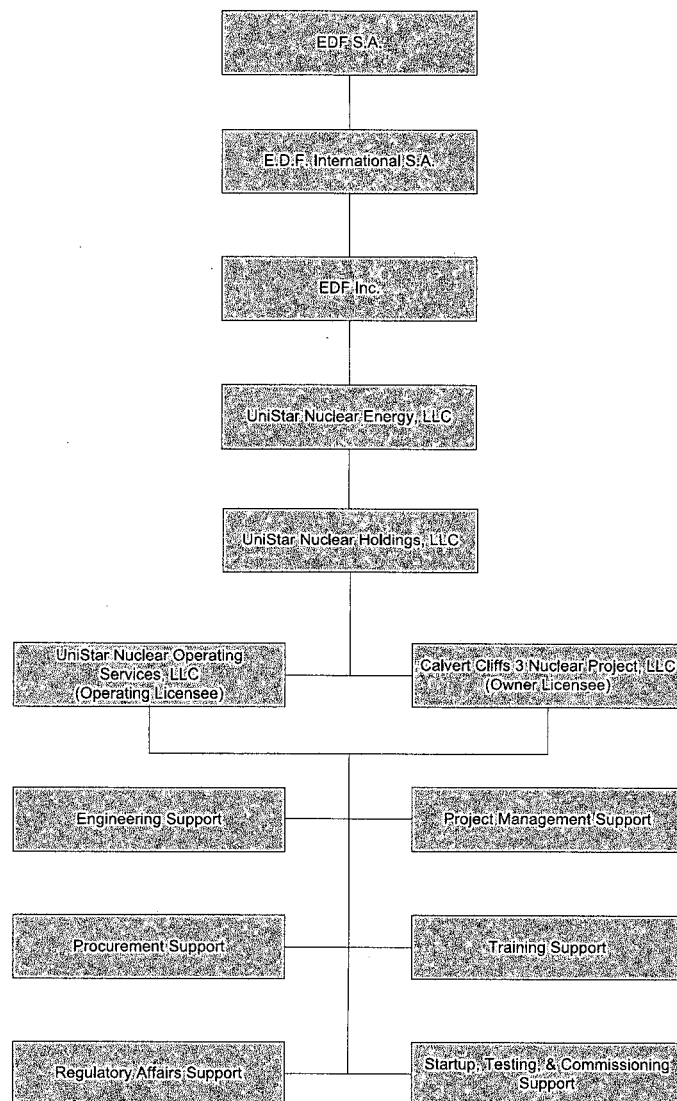
UniStar Nuclear Energy, LLC is owned by EDF Inc., which is an indirect subsidiary (through E.D.F. International S.A.) of Électricité de France SA (see Figure 13.1-3). CCNPP Unit 3 is operated as a merchant plant with no direct ties to a non-regulated utility.

UNE is comprised of five general organizational areas: training and infrastructure; procurement and engineering; services including project management, regulatory affairs, and testing, startup, and commissioning; an independent operating organization; and non-nuclear corporate services such as finance, legal, and human resources. Throughout the project life-cycle, the design, construction, testing, training, and operation activities report through vice presidents to the President and CEO of UNE. Non-nuclear support functions report separately to the President and CEO.

Upon receipt of nuclear fuel onsite, the CNO assumes primary responsibility for nuclear safety. Within UniStar Nuclear Operating Services, LLC non-nuclear support is provided through the Vice President of Administrative Services.

#### **13.1.1.2.3 Provisions of Technical Support for Operation**

UNE is organized into five principal areas, each with specific functions supporting the design, construction, testing, and operation of CCNPP Unit 3. Primary operational responsibility lies with UniStar Nuclear Operating Services, LLC the Operator Licensee of CCNPP Unit 3. UniStar

**Figure 13.1-1— {UniStar Ownership and Technical Support}**

## 18.1 HUMAN FACTORS ENGINEERING PROGRAM MANAGEMENT

This section of the U.S. EPR FSAR is incorporated by reference with the following supplements.

The U.S. EPR FSAR includes the following COL Item in Section 18.1:

A COL applicant that references the U.S. EPR design will execute the NRC approved HFE program as described in this section.

This COL Item is addressed as follows:

{UniStar Nuclear Operating Services, LLC} shall execute the NRC approved Human Factors Engineering (HFE) program as described in U.S. EPR FSAR Section 18.1.

### 18.1.1 Human Factors Engineering Program Goals, Assumptions and Constraints, and Scope

#### 18.1.1.1 Goals

No departures or supplements.

#### 18.1.1.2 Assumptions and Constraints

No departures or supplements.

#### 18.1.1.3 Applicable U.S. EPR Facilities

The U.S. EPR FSAR includes the following COL Item in Section 18.1.1.3:

A COL applicant that references the U.S. EPR design certification will be responsible for HFE design implementation for a new Emergency Operations Facility (EOF) and/or Operational Support Center (OSC) and changes resulting from the addition of the U.S. EPR to an existing EOF and/or OSC.

This COL Item is addressed as follows:

{The CCNPP site has an existing Emergency Operations Facility (EOF) for CCNPP Units 1 and 2. The existing EOF will be modified to accommodate an interface from CCNPP Unit 3. A description of the EOF is provided in the CCNPP Unit 3 Emergency Plan. The CCNPP Unit 3 Emergency Plan is provided in Part 5 of the COL application. Modifications to the existing EOF will be consistent with the U.S. EPR HFE Program described in U.S. EPR FSAR Chapter 18 and NUREG-0696 (NRC, 1981). These modifications will be evaluated using the U.S. EPR HFE Design Implementation process described in U.S. EPR FSAR Chapter 18. This process will verify the operability of the EOF features for CCNPP Unit 3 and ensure no degradation has occurred to the CCNPP Units 1 and 2 features in the EOF. Specifically, the plan will verify that the design changes to the existing EOF consider the effects on personnel performance and that the changes will provide the necessary support to provide reasonable assurance of effective implementation of the CCNPP Unit 3 Emergency Plan. Also, the modified EOF as-built design will be verified to conform to the verified and validated design that results from the HFE design process. This verification will be addressed through site-specific ITAAC provided in Part 10 of the COL application. The Operational Support Center (OSC) will be designed specifically for CCNPP Unit 3 and will not be shared with CCNPP Units 1 and 2. The OSC will be designed consistent with the U.S. EPR HFE Program Management plan referenced in U.S. EPR FSAR Chapter 18.}

**Enclosure 5**

**Calvert Cliffs Nuclear Power Plant, Unit 3,  
COLA Part 3, Environmental Report  
Page Markups**

**(NON- PROPRIETARY)**

### 1.2.1 Ownership and Applicant

Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC are applying for a combined license for the proposed nuclear power plant. The owner of the proposed project is Calvert Cliffs 3 Nuclear Project, LLC. The operator of the proposed project is UniStar Nuclear Operating Services, LLC. The contact with the NRC during the licensing process is Unistar Nuclear Holdings, LLC.

Calvert Cliffs 3 Nuclear Project, LLC is a limited liability company and is an indirect subsidiary (through UniStar Nuclear Holdings, LLC and UniStar Project Holdings, LLC, which operate as holding companies) of UniStar Nuclear Energy, LLC. UniStar Nuclear Energy is owned by EDF, Inc. EDF Inc. is an indirect subsidiary of (through E.D.F. International SA) Électricité de France SA.

The principal offices of Calvert Cliffs 3 Nuclear Project, LLC are located in Baltimore, Maryland. Calvert Cliffs 3 Nuclear Project, LLC is organized under the laws of the United States of Delaware pursuant to the First Amended and Restated Operating Agreement of Calvert Cliffs 3 Nuclear Project, LLC dated April 22, 2010 by UniStar Project Holdings, LLC and GSS Holdings (CCNP 3), Inc. Calvert Cliffs 3 Nuclear Project, LLC will be one of the licensees and will own CCNPP Unit 3.

UniStar Nuclear Operating Services, LLC has been formed to be a licensee and to operate U.S. Evolutionary Power Reactor (EPR) nuclear power plants in the United States. The principal offices of UniStar Nuclear Operating Services, LLC are located in Baltimore, Maryland. UniStar Nuclear Operating Services, LLC is organized under the laws of the State of Delaware pursuant to the First Amended and Restated Operating Agreement of UniStar Nuclear Operating Services, LLC dated January 12, 2011 by UniStar Nuclear Holdings, LLC, the predecessor to UniStar-Nuclear Holdings. UniStar-Nuclear Operating Services, LLC will be one of the licensees and will operate CCNPP, Unit 3.

### 1.2.2 Site Location

The proposed new nuclear power plant is located south of the existing nuclear power plant on the CCNPP site. The CCNPP site consists of 2,070 acres (838 hectares) in Calvert County, Maryland, on the west bank of Chesapeake Bay, approximately halfway between the mouth of the bay and its headwaters at the Susquehanna River. The site is approximately 40 mi (64 km) southeast of Washington D.C. and 7.5 mi (12 km) north of Solomons Island, Maryland. Figure 1.2-1 and Figure 1.2-2 illustrate the location of the CCNPP site.

### 1.2.3 Reactor Information

The proposed nuclear power plant consists of one pressurized water reactor steam electric system of the AREVA U.S. EPR design. The rated core thermal power is 4,590 MWt. The rated and design gross electrical output is 1,710 MWe. The rated and design net electrical output is approximately 1,562 MWe. Submittal of the U.S. EPR Final Safety Analysis Report for the design certification of the U.S. EPR was completed in December 2007.

### 1.2.4 Cooling System Information

The two major cooling systems interacting with the environment are the Circulating Water System and the Essential Service Water System. Figure 1.2-3 provides a simplified diagram of these two systems.

## **2.2 LAND**

### **2.2.1 The Site and Vicinity**

A map depicting the land use within the Calvert Cliffs Nuclear Power Plant (CCNPP) site is presented in Figure 2.2-1. Land use categories for this map are consistent with the land use classification codes listed in "USGS Land Use and Land Cover Data" (USGS, 1986).

The Calvert Cliffs campus has been divided into an approximately 962 acre North Parcel and an approximately 1,108 acre South Parcel. Calvert Cliffs Nuclear Power Plant, LLC (a Constellation Energy Group, LLC company) has retained ownership of the North Parcel, where CCNPP Units 1 and 2 are located. The approximately 726 acre portion of the South Parcel upon which CCNPP Unit 3 is to be constructed, and the remaining portion of the South Parcel, consisting of approximately 382 acres, are owned by Calvert Cliffs 3 Nuclear Project, LLC, and other UniStar Nuclear Energy, LLC subsidiaries.

The areas devoted to major uses of the land within the CCNPP site are summarized in Table 2.2-1. The Table is consistent with USGS land use categories. A map showing major land uses in the vicinity within 8 miles (13 km) of the project is presented in Figure 2.2-2 with land uses classified consistent with the 1997 USGS land use/cover categories (USGS, 1986). Major land uses in the 8 mi (13 km) vicinity of the project are summarized in Table 2.2-2. The vicinity is defined as the area encompassed within a radius of 8 mi (13 km) surrounding the plant site. A topographical map of the CCNPP site is presented in Figure 2.2-3.

Critical areas at the CCNPP site include the Chesapeake Bay Critical Area (CBCA) and a Critical Area Buffer (CAB). The CBCA is a zone encompassing all land within 1,000 ft (305 m) of the Mean High Water Line of tidal waters or the landward edge of tidal wetlands and all waters of and lands under the Chesapeake Bay and its tributaries. The Critical Area Buffer is a zone encompassing the first 100 ft (30 m) of inshore land within the 1,000 ft (305 m) CBCA. The CBCA was enacted by the State of Maryland (CALCO, 2006a) in 1984 and adopted by Calvert County (CALCO, 2004) in 1988. All applicable State and County regulations and ordinances pertaining to the CBCA will be complied with during the construction and operation of CCNPP Unit 3. The CBCA setback is indicated on Figure 2.2-1.

Calvert County is one of Maryland's 16 counties located in the Maryland Coastal Zone. The Federal Coastal Zone Management Act (CZMA) was enacted in 1972 establishing a Federal Coastal Zone Management Program. The CZMA, as discussed in Section 1.3, requires that Federal actions which are reasonably likely to affect any land or water use, or natural resource of a state's coastal zone be conducted in a manner consistent with the state's federally approved Coastal Zone Management Program. For activities requiring Federal permitting, the state would be notified directly by the Federal agency involved or by the applicant for input into the project approval process. The State of Maryland CZMP, managed by the Maryland Department of the Environment (MDE) is a comprehensive and coordinated program with specific goals, objectives, and policies developed for the management of uses and activities which have direct, and potentially significant, effect on coastal resources (MDE, 2004).

There are no known claims by Native Americans on lands within the site boundary or within the 8 mi (13 km) radius of the CCNPP site. Federal lands in Calvert County include the U.S. Naval Recreation Center at Solomons in the southern portion of the county. The recreational area is comprised of 295 acres (119 hectares) on the Patuxent River. The Recreation Center serves Defense Department employees from the Patuxent River Naval Air Station, active duty

## 3.2 REACTOR POWER CONVERSION SYSTEM

### 3.2.1 General

Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs 3 Nuclear Project) and UniStar Nuclear Operating Services (UNOS), LLC propose construction and operation of a new nuclear power plant to be designated Calvert Cliffs Nuclear Power Plant (CCNPP) Unit No. 3 located directly adjacent to the existing Calvert Cliffs site, on property that was formerly a part of the existing Calvert Cliffs site, but is now owned by the Calvert Cliffs 3 Nuclear Project. Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services are applying for a combined license for the proposed nuclear power plant.

Calvert Cliffs 3 Nuclear Project, LLC is a limited liability company and is an indirect subsidiary (through UniStar Nuclear Holdings, LLC and UniStar Project Holdings, LLC, which operate as holding companies) of UniStar Nuclear Energy, LLC. UniStar Energy is owned by EDF Inc. EDF Inc. is an indirect subsidiary of (through E.D.F. International SA) of Électricité de France SA. Calvert Cliffs 3 Nuclear Project will be one of the licensees and will own CCNPP, Unit 3.

UniStar Nuclear Operating Services has been formed to be a licensee and to operate Areva's advanced reactor, the U.S. Evolutionary Power Reactor (EPR), in the United States. The principal offices of UniStar Nuclear Operating Services are located in Baltimore, MD. The UniStar Operating Services is organized under the laws of the State of Delaware pursuant to the First Amended and Restated Operating Agreement of UniStar Nuclear Operating Services, LLC dated January 12, 2011 by UniStar Nuclear Holdings, LLC. UniStar Nuclear Operating Services will be one of the licensees and will operate CCNPP, Unit 3.

The U.S. EPR design has a rated core thermal power of 4,590 MWt. The rated and design gross electrical output for the U.S. EPR is approximately 1,710 MWe. Electrical power consumption for auxiliary loads is approximately 130 MWe, with another 18 MWe required for the cooling tower fans, resulting in a rated and design net electrical output of approximately 1,562 MWe. Although the U.S. EPR is to be licensed for 40 years, the proposed operating life of the U.S. EPR is 60 years.

The U.S. EPR design is a four-loop, pressurized water reactor, with a Reactor Coolant System (RCS) composed of a reactor pressure vessel that contains the fuel assemblies, a pressurizer including ancillary systems to maintain system pressure, one reactor coolant pump per loop, one steam generator per loop, associated piping, and related control systems and protection systems. Referring to Figure 3.2-1, which provides a simplified depiction of the reactor power conversion system for the U.S. EPR, the RCS transfers the heat generated in the reactor core to the steam generators where steam is produced to drive the turbine generator. Water is utilized to remove the heat formed inside the reactor core. The reactor coolant pumps provide forced circulation of water through the RCS and a pressurizer, connected to one of the four loops, maintains the pressure within a specified range. Each of the four reactor coolant loops comprises a hot leg from the reactor pressure vessel to a steam generator, a cross-over leg from the steam generator to a reactor coolant pump, and a cold leg from the reactor coolant pump to the reactor pressure vessel. In each of the four loops, the primary water leaving the reactor pressure vessel through an outlet nozzle goes to a steam generator. The primary water flows inside the steam generator tube bundle and transfers heat to the secondary water. The primary water then goes to a reactor coolant pump before returning to the reactor pressure vessel through an inlet nozzle. The feedwater entering the secondary side of the steam generators absorbs the heat transferred from the primary side and evaporates to produce saturated steam. The steam is dried in the steam generators then routed to the turbine to



in-migrating residents would depend upon their retail purchasing patterns, but would only represent a small benefit to this revenue stream for the region and the 50 mi (80 km) radius.

Overall, although all tax revenues generated by the CCNPP Unit 3 and the related workforce would be substantial in absolute dollars, as described above, they would be relatively small compared to the overall tax base in the region and the state of Maryland. Thus, it is concluded that the overall beneficial impacts to state tax revenues would be SMALL.

#### 4.4.2.6.2 Two-County Region of Influence

In 2006, Constellation Energy paid about \$15.8 million in Calvert County property taxes (including \$10.3 million in personal property and \$5.5 million in operating real property taxes) for Units 1 and 2, and in 2007 it paid about \$16.2 million in property taxes (including \$10.6 million in personal property and \$5.6 million in operating real property taxes). As a basis for comparison, these payments may be considered to be representative for CCNPP Unit 3.

The total project capital cost estimated for CCNPP Unit 3 is [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million. Investments in planning, engineering, and an assumed limited work authorization from 2008 through 2010 would result in UniStar paying increased county total property taxes, from about [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million in 2009, to [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] in 2010. Even more substantial increases in total property tax payments would occur in subsequent years once major construction activities commence, including [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million in 2011, [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million in 2012, [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million in 2013, [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million in 2014, and [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million in 2015. The maximum of [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million would represent a significant [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] percent increase in Calvert County's \$78.8 million in annual property (real and personal) tax revenues for fiscal year 2005, and a [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] percent increase in total county revenues of [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million (see Section 2.5.2).

These increased property tax revenues would either provide additional revenues for existing public facility and service needs or for new needs generated by the power plant and associated workforce. The increased revenues could also help to maintain or reduce future taxes paid by existing non-project related businesses and residents, to the extent that project-related payments provide tax revenues that exceed the public facility and service needs created by CCNPP Unit 3. However, the payment of those taxes often lags behind the actual impacts to public facilities and services, or the time needed to plan for and provide the additional facilities or services. Thus, it is concluded that these increased power plant property tax revenues would be a LARGE economic benefit to Calvert County.

Additional county income taxes would be generated by the in-migrating residents, although the amount cannot be estimated because of the variability of investment income, retirement contributions, tax deductions taken, applicable tax brackets, and other factors. It is estimated that Calvert County would experience a \$66.5 million increase in annual wages from the direct

concluded that the potential increase in state income taxes represent a SMALL economic benefit.

Additional sales taxes also would be generated by the power plant and the in-migrating residents. It is estimated that UniStar would spend about \$9 million annually (in 2005 dollars) on materials, equipment, and outside services (excluding costs for planned outages), which would generate additional state sales and income taxes. The amount of increased sales tax revenues generated by the in-migrating residents would depend upon their retail purchasing patterns, but would only represent a SMALL benefit to this revenue stream for the state and the 50 mi (80 km) radius.

Overall, although all tax revenues generated by the CCNPP Unit 3 and the related workforce would be substantial in absolute dollars, as described above, they would be relatively small compared to the overall tax base in 50 mi (80 km) area and the State of Maryland. Thus, it is concluded that the overall beneficial impacts to state tax revenues would be SMALL.

#### **5.8.2.4.2 Two-County Region of Influence**

The facility qualifies for a 50% reduction in assessed personal property value once operation begins in 2016, reducing the personal property assessed value from [Proprietary Information Withheld Under 10 CFR 2.390- See Part 9 of the COL Application] billion (excluding financing costs) to [Proprietary Information Withheld Under 10 CFR 2.390- See Part 9 of the COL Application] billion. This would result in a drop in total property tax payments for Unit 3 to [Proprietary Information Withheld Under 10 CFR 2.390- See Part 9 of the COL Application] million in 2016, which then would slowly decline in following years as a result of taking allowances for depreciation. This would represent a [Proprietary Information Withheld Under 10 CFR 2.390- See Part 9 of the COL Application] increase in Calvert County's \$78.8 million in annual property (real and personal) tax revenues for fiscal year 2005, and a [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] increase in total county revenues of [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million (see Section 2.5.2). These increased property tax revenues would either provide additional revenues for existing public facility and service needs or for new needs generated by the power plant and associated workforce. The increased revenues could also help to maintain or reduce future taxes paid by existing non-project related businesses and residents, to the extent that project-related payments provide tax revenues that exceed the public facility and service needs created by CCNPP Unit 3. It is concluded that these increased power plant property tax revenues would be a LARGE economic benefit to Calvert County.

Additional county income taxes would be generated by the in-migrating residents, although the amount cannot be estimated because of the variability of investment income, retirement contributions, tax deductions taken, applicable tax brackets, and other factors. It is estimated that Calvert County would experience a \$19.0 million increase in annual wages from the direct workforce and \$34.4 million in indirect workforce wages, for a total of \$53.4 million. St. Mary's County would experience an estimated annual increase of \$6.4 million from the direct workforce and \$11.6 million in indirect workforce wages, for a total of \$18.0 million.

In 2005, total revenues in Calvert County were about \$174.1 million with 45.3% (78.8 million) from property taxes, 31.2% (\$54.4 million) from income taxes and 8.3% (\$14.5 million) from other taxes. In 2005, St. Mary's received approximately \$145 million in revenues. Of this \$54.1 million was raised from income taxes, or about 37% (????). At an income tax rate of 2.8%, the

In addition, scheduling planned outages for CCNPP Unit 3 at times other than when they would occur for CCNPP Units 1 and 2 should minimize the impacts of the availability and cost for hotel/motel rooms and other short-term accommodations. Thus, CCNPP Unit 3 should not affect the availability or cost of housing for low-income and minority populations. Because the operational workforce would not require significant amounts of the vacant houses or hotel/motel rooms and, thus, would not affect housing or rental prices, the power plant would have a SMALL impact on housing, would not be disproportionate compared to the general population, and would not require mitigation.

#### **5.8.3.2.3 Tax Revenues**

Finally, UniStar would pay an estimated [Proprietary Information Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million annually in property taxes (all figures are in nominal dollars) starting in 2016 when power plant operation would begin. These revenues would slowly decline in the following years as a result of taking allowances for depreciation. These new property taxes from CCNPP Unit 3 would represent a [Proprietary Information Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] increase in Calvert County's \$78.8 million in annual property (real and personal) tax revenues for fiscal year 2005, and a [Proprietary Information Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] increase in total county revenues of [Proprietary Information Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million.

UniStar also would spend about \$9 million annually on materials, equipment, and outside services (excluding costs for planned outages) which would generate additional sales taxes for the county and the state.

The CCNPP Unit 3 operational workforce would generate increased income tax, sales tax, and property tax revenues where they live and where they spend their incomes. Low-income and minority populations might benefit somewhat from these increased tax revenues, either because they might help to avoid some future tax increases or they might fund improvements to or the creation of new public facilities or services. However, the benefits of these additional tax revenues, facilities, or services would be SMALL, would not be disproportionate compared to the general population, and would not require mitigation.

#### **5.8.3.2.4 Subsistence**

Existing or traditional subsistence harvesting activities would not likely be affected by operation of CCNPP Unit 3 because these activities do not occur directly on the CCNPP site. Also, CCNPP Unit 3 would not likely affect the surrounding environment where subsistence and other harvesting activities might occur, and thus should not affect harvest rates. Thus, impacts to subsistence uses would be SMALL, would not be disproportionate compared to the general population, and would not require mitigation. Also, potential radiological releases from CCNPP Unit 3 will be a fraction of those already existing for CCNPP Units 1 and 2 combined, and the combined releases of all three units will be well below regulatory limits. Thus, there is no indication based upon the levels of releases that Unit 3 would add significantly to the total radiological releases or ingestion from subsistence harvesting activities.

#### **5.8.3.2.5 Transportation**

There is no indication that people in minority or low income census block groups lack personal vehicles or other modes of transportation. Thus, there would likely be a SMALL impact to

#### 10.4.1.4 Benefits of the Proposed Facility

Locating the proposed new nuclear facility at the existing CCNPP property will afford benefits to the local economy. The CCNPP owners will pay property taxes on the proposed new unit for the duration of the operating licenses. CCNPP owners estimate that annual property tax payments could reach approximately [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million in 2016, the year of plant startup and a maximum of [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application] million as described in Section 4.4.2.6.2. Most people consider large tax payments a benefit to the taxing entity because they support the development of infrastructure that supports further economic development and growth.

Approximately 833 people are employed at the existing CCNPP facility (BGE, 1998). It is anticipated that construction and operation of the new facility would require a skilled workforce of 363 people. New jobs within approximately a 50 mi (80 km) radius of the plant would be created by the construction and operation of the new facility. Many of these jobs would be in the service sector and could be filled by unemployed local residents, lessening demands on social service agencies in addition to strengthening the economy. It is anticipated that the new jobs would be maintained throughout the life of the plant.

Construction and operation of the new nuclear facility at CCNPP would generate an economic multiplier effect in the area. The economic multiplier effect means that for every dollar spent an additional \$0.69 of indirect economic revenue would be generated within the region of influence (BEA, 2007). The economic multiplier effect is one way of measuring direct and secondary effects. Direct effects reflect expenditures for goods, services, and labor, while secondary effects include subsequent spending in the community. The economic multiplier effect due to the increased spending by the direct and indirect labor force created as a result of the construction and operation of the new nuclear reactor unit would increase economic activity in the region, most noticeably in Calvert County.

Given concerns in the State of Maryland about climate change and carbon emissions, CCNPP Unit 3 serves an important environmental benefit need by reducing carbon emissions in the State. Upon operation, CCNPP Unit 3 would displace significant amounts of carbon compared to a coal-fired generating plant. The costs of climate change, which have been quantified, will have a significant impact on the global and national economies.

#### 10.4.2 Costs

This section summarizes estimated costs for construction and operation of CCNPP Unit 3. The information provided in this section was prepared in accordance with the guidance provided in NUREG-1555 (NRC, 1999), ESRP 10.4.2). The discussion below provides sufficient economic information to assess and predict costs and benefits.

Table 10.4-1 summarizes the benefits and costs of the proposed action. Section 10.5 summarizes the potential cumulative adverse environmental impacts at the proposed project site.

##### 10.4.2.1 Monetary - Construction

The phrase commonly used to describe the monetary cost of constructing a nuclear plant is "overnight capital cost." The capital costs are those incurred during construction, when the actual outlays for equipment and construction and engineering are expended, in other words, the cost resulting if one were to pay for 100% of the plant "overnight". Overnight costs are:

- ◆ expressed as a constant dollar amount versus actual nominal dollars,
- ◆ expressed in \$/kW, and
- ◆ for the nuclear industry, the overnight capital cost does not include inflation, financing or extraordinary site costs.

The overnight capital cost for CCNPP Unit 3, excluding contingency costs, is estimated to be [Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]. This is the unlevelized capital cost for Unit 3. The levelized capital cost for the "nth" U.S. EPR will be lower than that for CCNPP Unit 3 as a result of cost savings such as document reuse, supply chain volume savings, labor and construction sequence learning curve, and reduced spare parts inventory, that can be realized by constructing multiple EPRs.

#### 10.4.2.2 Monetary - Operation

Operation costs for CCNPP Unit 3 are in the process of being estimated. Operation costs are frequently expressed as the levelized cost of electricity, which is the price at the busbar needed to cover operating costs and annualized capital costs. Overnight capital costs account for a third of the levelized cost, and interest costs on the overnight costs account for another 25% (UC, 2004). At this time, levelized cost estimates ranging from \$31 to \$46 per MWh (\$0.031 to \$0.046 per kWh) has been selected. Factors affecting the range include choices for discount rate, construction duration, plant life span, capacity factor, cost of debt and equity and split between debt and equity financing, depreciation time, tax rates, and premium for uncertainty.

Estimates include decommissioning but, because of the effect of discounting a cost that would occur as much as 40 years in the future, decommissioning costs have relatively little effect on the levelized cost. In addition, the Energy Policy Act of 2005 instituted a production tax credit for the first advanced reactors brought on line in the U.S. (PL, 2005) would tend to lower this estimate.

#### 10.4.3 Summary

Table 10.4-1 summarizes the benefits and costs associated with the proposed construction and operation of CCNPP Unit 3. Costs that are environmental impacts are those anticipated after proposed mitigation measures are implemented. Section 10.5 addresses the environmental costs and cumulative impacts.

#### 10.4.4 References

**BEA, 2007.** Regional Input-Output Modeling System (RIMS II), Developed for Calvert County and St. Mary's County, Maryland for TetraTech NUS, General RIMS II, U.S. Department of Commerce, Bureau of Economic Analysis, Website: <http://www.bea.gov/regional/gsp/action.cfm>, Date accessed: May 17, 2007.

**BGE, 1998.** Calvert Cliffs Nuclear Plant, Units 1 and 2, Docket Numbers 50-317 and 50-318, Application for License Renewal, Letter from C. H. Cruse (Baltimore Gas and Electric) to Nuclear Regulatory Commission, April 8, 1998.

**CFR, 2007.** Title 10, Code of Federal Regulations, Part 51, Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions, 2007.

**Table 10.4-1— Benefit and Costs of the Proposed Project Summarized**[Proprietary Information - Withheld Under 10 CFR 2.390 - See Part 9 of the COL Application]  
(Page 1 of 10)

Cost Category	CCNPP Site	Thiokol Site	EASTALCO Site	Bainbridge Site
<b>INTERNAL COSTS</b>				
Construction Cost	[Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application] (It is anticipated that CCNPP Unit 3 will have a net electrical output of approximately 1,600 MWe. Using the value of [Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application] per kW results in a CCNPP Unit 3 construction cost of approximately [Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application].)	[Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application] (It is anticipated that the installed reactor will be similar to CCNPP Unit 3 (net electrical output of approximately 1,600 MWe.) Using the value of [Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application] per kW results in a construction cost of approximately [Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application].)	[Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application] (It is anticipated that the installed reactor will be similar to CCNPP Unit 3 (net electrical output of approximately 1,600 MWe. Using the value of [Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application] per kW results in a construction cost of approximately [Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application].)	[Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application] (It is anticipated that the installed reactor will be similar to the CCNPP Unit 3 (net electrical output of approximately 1,600 MWe. Using the value of [Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application] per kW results in a construction cost of approximately [Note: Proprietary Information - Withheld Under 10CFR2.390 - See Part 9 of the Cola Application].)
Operating Cost	\$0.031 to \$0.046 per kilowatt-hour	\$0.031 to \$0.046 per kilowatt-hour	\$0.031 to \$0.046 per kilowatt-hour	\$0.031 to \$0.046 per kilowatt-hour
Land	The CCNPP site is 2,070 acres (838 hectares). Co-located on the CCNPP site with CCNPP Units 1 and 2. Impact on land use is minimal compared to a new site. SMALL	620 acres (251 hectares) of space is available at the property for the new facility. Impact on land use is small to moderate compared to new site. Potential wetland issues. SMALL-MODERATE	2,200 acres (890 hectares) of space is available at the EASTALCO for the new facility. Impact on land use is small compared to new site. SMALL	1,185 acres (480 hectares) of space is available at the Bainbridge property for the new facility. Impact on land use is small to moderate compared to new site. SMALL-MODERATE
Labor	Add 363 direct new jobs, 661 indirect new jobs to the benefits. SMALL	It is assumed that similar size workforce to that which is anticipated for the proposed CCNPP facility. SMALL	It is assumed that similar size workforce to that which is anticipated for the proposed CCNPP facility. LARGE	It is assumed that similar size workforce to that which is anticipated for the proposed CCNPP facility. LARGE
Materials	Construction materials include: concrete, aggregate, rebar, conduit, cable, piping, building supplies, and tools. Operating material includes uranium	Construction materials include: concrete, aggregate, rebar, conduit, cable, piping, building supplies, and tools. Operating material includes uranium	Construction materials include: concrete, aggregate, rebar, conduit, cable, piping, building supplies, and tools. Operating material includes uranium	Construction materials include: concrete, aggregate, rebar, conduit, cable, piping, building supplies, and tools. Operating material includes uranium

**Enclosure 7**

**Affidavit**

**Requesting the Withholding of Enclosure 6 from Public  
Disclosure in Accordance with 10 CFR 2.390(a)(4)**

**(NON-PROPRIETARY)**

**Affidavit of Gregory T. Gibson**  
(Page 1 of 2)

Gregory T. Gibson, being duly sworn, hereby deposes and states as follows:

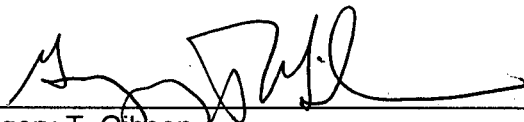
1. My name is Gregory T. Gibson. I am the Vice President, Regulatory Affairs for UniStar Nuclear Energy, LLC (UniStar).
2. I have been authorized by UniStar to execute this affidavit in support of UniStar's request to withhold proprietary information identified in UniStar's letter to the NRC UN#11-014, "UniStar Nuclear Energy, Docket No. 52-016, "Calvert Cliffs Nuclear Power Plant Unit 3, RAI No. 281, Part 1: Introduction and Interfaces" hereafter referred to as the Proprietary Information, from public disclosure in accordance with the Nuclear Regulatory Commission (NRC) regulations appearing at 10 CFR 2.390(a)(4).
3. Proprietary Information is being submitted as proprietary and confidential information as part of Enclosure 6 to UniStar's letter UN #11-014 from Greg Gibson to the NRC Document Control Desk.
4. The Proprietary Information includes detailed financial information regarding costs and taxes associated with the construction and operation of the proposed U.S. EPR nuclear power plant at the Calvert Cliffs Nuclear Power Plant, Unit 3 Site (i.e. CCNPP Unit 3).
5. The Proprietary Information was prepared with the explicit understanding that the information itself would be treated as proprietary and confidential. The information should therefore be withheld from public disclosure. Indeed, UniStar has refrained from publicly disclosing this information. To the best of my knowledge and belief, the Proprietary Information has not otherwise been knowingly made available in any public source.
6. If the Proprietary Information was publicly disclosed, UniStar would suffer irreparable and incalculable harm. Specifically, UniStar's competitors would gain valuable insight into otherwise unavailable business strategies, plans, and financial details. By knowing the details included in the Proprietary Information, UniStar's competitors would obtain an unfair commercial advantage that would significantly affect UniStar's ability to compete. In addition, the success of the UniStar's future plans is governed in large part by the cost and tax information, and thus to publicly disclose this information as reflected in the Proprietary Information would result in substantial harm to the competitive position of UniStar.
7. Financial information by its nature is treated as confidential. The specific financial details in the Proprietary Information have not been publicly released for the reasons set forth above. Accordingly, withholding the Proprietary Information from disclosure will not adversely affect the public.
8. A redacted version of the Proprietary Information has been provided. This version is for public disclosure.



**Affidavit of Gregory T. Gibson**  
(Page 2 of 2)

9. The Proprietary Information is being submitted to the NRC in confidence. This Proprietary Information is of a sort customarily held in confidence by UniStar, and in fact has been held in confidence and not otherwise previously publicly released.

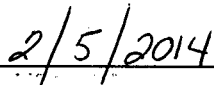
Further Affiant sayeth not.

  
\_\_\_\_\_  
Gregory T. Gibson  
Vice President, Regulatory Affairs  
UniStar Nuclear Energy, LLC

Subscribed and sworn to before me,  
Notary Public, this 31st day of January, 2011:

  
\_\_\_\_\_

My Commission expires:

  
\_\_\_\_\_

**MELANIE DIANE FRAILER**  
**NOTARY PUBLIC**  
**ANNE ARUNDEL COUNTY, MARYLAND**  
**MY COMMISSION EXPIRES 2/5/2014**

