

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD PANEL

In the Matter of  
South Texas Project Nuclear Operating Co.  
Application for the South Texas Project  
Units 3 and 4  
Combined Operating License

Docket Nos. 52-012, 52-013  
July 1, 2013

**PREFILED DIRECT TESTIMONY OF MICHAEL F. SHEEHAN, Ph.D.  
ON BEHALF OF INTERVENORS SUSTAINABLE ENERGY AND  
ECONOMIC DEVELOPMENT COALITION (SEED), SUSAN DANCER,  
THE SOUTH TEXAS ASSOCIATION FOR RESPONSIBLE ENERGY,  
PUBLIC CITIZEN, DANIEL A. HICKL AND BILL WAGNER REGARDING  
CONTENTION FC-1**

**I. INTRODUCTION**

**A. Qualifications**

**Q. PLEASE STATE YOUR NAME AND ADDRESS FOR THE RECORD.**


A. My name is Michael F. Sheehan. My address is Sheehan & Sheehan Economics LLC, 33126 Callahan Road, Scappoose, Oregon, 97056.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

A. I am a partner in the firm of Sheehan & Sheehan Economics LLC.

**Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.**

A. I hold BS, MA and Ph.D. degrees in economics from the University of California at Riverside and a Juris Doctorate degree from the College of Law at the University of

United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of:	NUCLEAR INNOVATION NORTH AMERICA LLC (South Texas Project Units 3 and 4)
	ASLBP #: 09-885-08-COL-BD01
	Docket #: 05200012   05200013
	Exhibit #: INT000056-00-BD01
	Admitted: 1/6/2014
	Rejected:
	Other:
	Identified: 1/6/2014 Withdrawn: Stricken:

Iowa. I taught for a number of years at the Graduate Program in Urban and Regional Planning at the University of Iowa specializing in public utility policy and planning, planning economics, energy planning and development finance. I have testified as an expert witness in a number of cases before state public utility commissions, and in a number of cases before the ASLB on nuclear issues. I am the co-author of a report on the New Mexico uranium industry which focused in part on the issue of foreign dominance in the nuclear fuel industry. Further details of my qualifications are set forth in my resume as attached to Intervenors' Initial Statement of Position, filed concurrently with this testimony.

#### **B. Purpose of Testimony**

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to present an analysis of the level of control or domination Toshiba exercises, or has the power to exercise, either directly or indirectly, over the applicant in this case, Nuclear Innovation North America, LLC (NINA or Applicant).

**Q. WHAT MATERIALS HAVE YOU REVIEWED IN THE COURSE OF YOUR EVALUATION.**

A. A list of the materials I have reviewed is set forth in the attached Exhibit INT000058; however, not each source listed was used or relied upon in my testimony.

#### **C. Statute and Rule on Foreign Ownership, Control or Domination**

**Q. ARE YOU FAMILIAR WITH THE STATUTE AND RULE DEALING**

**WITH THE PROHIBITION OF FOREIGN OWNERSHIP, CONTROL OR DOMINATION OF NUCLEAR FACILITIES?**

A. Yes. The relevant statute is set forth at 42 USC 2133(d):

“No license may be issued to an alien or any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.”

And the NRC’s rule is set forth at 10 CFR 50.38:

“Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license.”

**II. REVIEW OF THE FACTS**

**A. The Major Corporate Participants  
in the STP 3 and 4 Projects**

**Q. WHO ARE THE MAJOR CORPORATE PARTICIPANTS IN THE STP 3 & 4 PROJECTS?**

A. The major participants in the projects to license and construct STP 3 & 4 are Nuclear Energy Inc. (NRG), Toshiba Corp., Nuclear Innovation North America LLC (NINA), CPS Energy (CPS), and The Shaw Group.

**Q. WHAT ARE THE CHARACTERISTICS OF NRG AND HOW DO THEY RELATE TO THIS PROJECT?**

A. NRG Energy Inc. is a wholesale power generation company and a major player in the nuclear energy industry in the U.S. As of December 21, 2009 NRG Energy had 187

active operating fossil fuel and nuclear generation units at 44 power generation plants.<sup>1</sup> NRG also has multiple joint ventures and agreements with foreign entities, including a joint venture with Toshiba Power Systems and NINA to develop nuclear power projects in North America based on Toshiba's ABWR design.<sup>2</sup> In February 2008 NRG formed NINA to take over the development of STP 3 and 4. At the same time NRG entered into an agreement with Toshiba Corp. (Toshiba) wherein Toshiba agreed to invest up to \$300 million in NINA in return for 12% ownership of NINA, with NRG owning the remaining 88% of NINA through its subsidiary Texas Genco Holdings, Inc.<sup>3</sup>

**Q. WHAT ARE THE CHARACTERISTICS OF TOSHIBA AND HOW DO THEY RELATE TO THIS PROJECT?**

A. Toshiba is a Japanese corporation which today operates 740 companies worldwide with annual sales of more than \$68 billion.<sup>4</sup> Toshiba is a major player in nuclear power worldwide and STP 3 and 4 will be the first projects in the US to use Toshiba's ABWR, a leading edge nuclear power plant technology. Toshiba owns 100% of Toshiba America Inc., a U.S. corporation, which itself has 100% ownership of Toshiba America Nuclear Energy Corp. (TANE), a U.S. corporation which owns approximately 10% of Nuclear Innovation North America LLC (NINA), the licensee in this case.

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1 Combined Operating License Application, Rev. 9 Part 1 Information (Non-Proprietary Version) Attachment 3, p.7 of 33 (ML13115A291) Exh. INT000059.

2 Letter from D. Matthews, NRC, to M. McBurnett, "South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review.", p.7. (April 30, 2013) Exh. INT000060.

3 Combined Operating License Application, Rev. 9 Part 1 Information (Non-Proprietary Version) Attachment 3, p.5 of 33 (ML13115A291) Exh. INT000059.

4 NINA Announces Newly Developed EPC Consortium to Advance STP. Business Wire, November 29, 2010. Exh. INT000061.

**Q. WHAT ROLE DOES NINA PLAY IN THE DEVELOPMENT OF THE STP 3 & 4 PROJECTS?**

A. NINA was created by NRG to do the transition from STPNOC as license applicant to NINA for the STP 3 & 4 reactors. NINA is owned approximately 90% by NRG through its subsidiary Texas Genco Holdings, and approximately 10% by TANE. NINA is a company whose broader focus is to market and promote ABWR nuclear technology, and to develop and construct ABWR nuclear power generation facilities in the US.<sup>5</sup> As part of its participation in the STP 3 and 4 projects, Section 2.4 of the Stx Operating Agreement provides for NINA to carry out the business of developing Advanced Boiling Water Reactor (ABWR) generation projects in North America and the infrastructure to support ABWR projects.”<sup>6</sup>

**Q. WHAT ROLE DOES CPS ENERGY PLAY IN THE DEVELOPMENT AND DEPLOYMENT OF THE STP 3 & 4 PROJECTS?**

A. CPS Energy is a Texas municipal utility and an independent Board of the City of San Antonio. Today it is the nation’s largest municipally owned electric utility, serving more than 700,000 electric customers in and around San Antonio.<sup>7</sup> CPS has been a major participant and investor in the STP 3 & 4 projects, and has a 7.6% ownership interest in STP 3 and STP 4, but no ownership interest in NINA. CPS also is a co-controller of

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<sup>5</sup> Combined Operating License Application, Rev. 9 Part 1 Information (Non-Proprietary Version) Attachment 3, p.5 of 33 (ML13115A291) Exh. INT000059.

<sup>6</sup> Nuclear Innovation North America (NINA) Response to Request for Additional Information (RAI), Attachment p.5. (May 18, 2012) (ML12144A310) Exh. STP000050.

<sup>7</sup> Combined Operating License Application, Rev. 9 Part 1 Information (Non-Proprietary Version) Attachment 3, p.9 of 33 (ML13115A291) Exh. INT000059.

STPNOC, the proposed operator of STP 3 & 4.<sup>8</sup>

**Q. WHAT ROLE DOES THE SHAW GROUP PLAY IN THE DEVELOPMENT AND DEPLOYMENT OF THE STP 3 & 4 PROJECTS?**

A. The Shaw Group, Inc. is a major nuclear energy plant engineering and construction entity.<sup>9</sup> In November 2010 NINA announced the award of the STP 3 & 4 Engineering, Procurement and Construction (EPC) contract to a consortium of TANE (Toshiba) and The Shaw Group.<sup>10</sup>

**B. Chronology**

**Q. WHAT WERE THE MAJOR EVENTS IN THE RECENT HISTORY OF THE STP 3 & 4 PROJECT?**

A. The dates of major events are as follows:

**September 20, 2007:** STP Nuclear Operating Company (STPNOC) Submitted a combined license application (COL) for South Texas Project (STP) Units 3 and 4.<sup>11</sup>

**March 1, 2010:** CPS reduced its ownership interest in the projects to 7.625% and announces NINA 3 and NINA 4 will be responsible for arranging for the financing and equity contributions necessary to complete development and construction of STP 3 & 4. CPS Energy states is not responsible for any further funding

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<sup>8</sup> Letter from D. Matthews, NRC, to M. McBurnett, “South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review.” p.6. (April 30, 2013) Exh. INT000060.

<sup>9</sup> NINA Announces Newly Developed EPC Consortium to Advance STP. Business Wire, November 29, 2010. Exh. INT000061.

<sup>10</sup> Letter from D. Matthews, NRC, to M. McBurnett, “South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review.” p.11 (April 30, 2013) Exh. INT000060.

<sup>11</sup> Id. at p.1.

obligations until commercial operation.<sup>12</sup>

**November 29, 2010:** EPC contract awarded to Toshiba & Shaw.<sup>13</sup>

**November 29, 2010:** Shaw enters into a \$100M revolving credit facility with NINA to be used in financing the EPC contract for STP 3 & 4. Shaw 8-K Dec 3, 2010.<sup>14</sup>

**January 24, 2011:** Nuclear Innovation North America (NINA) became the lead applicant and assumed responsibility for design, construction and licensing of STP Units 3 and 4.<sup>15</sup>

**March 2011:** Fukushima

**March 21, 2011:** NRG announces that it is significantly reducing its participation in STP 3 & 4 following events at Fukushima.

**April 19, 2011:** NRG announces that it is withdrawing any further financial participation in NINA's development of STP 3 & 4. NRG 10-Q, for the quarter ending March 31, 2011, p.12.

**May 5, 2011:** NRG announces that it ceased to have a controlling financial interest in NINA at the end of the first quarter of 2011. NRG 10-Q, for the quarter ending March 31, 2011, p.12.

**December 13, 2011:** NRC Staff Letter determining that NINA was subject to

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12 Combined Operating License Application, Rev. 9 Part 1 Information (Non-Proprietary Version) Attachment 3, p.12 of 33 (ML13115A291) Exh. INT000059.

13 Letter from D. Matthews, NRC, to M. McBurnett, "South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review." p.11 (April 30, 2013) Exh. INT000060.

14 Id. p.17.

15 Id. at p.1.

FOCD.

**October 19, 2012:** Shaw reports “that it had impaired the loans granted to NINA and that it “has not and does not plan to make additional investments in ABWR related projects.”<sup>16</sup> October 19, 2012 10K.

**February 13, 2013:** Shaw acquired by Chicago Bridge & Iron Company (CB&I), a Netherlands limited liability company. NRC Staff determines that Shaw therefore meets the definition of a “foreign entity” per the SRP.<sup>17</sup>

**April 30, 2013:** NRC Staff Letter determining that NINA is subject to FOCD.

### **C. The Financial Structure of the Projects**

#### **Q. HOW IS THE FINANCING OF THE PROJECTS ARRANGED?**

A. Financing of the project has changed dramatically over time. As of March 2011 NRG’s equity investment in the project was approximately \$466 million.<sup>18</sup> NRG has since announced that while “it would cooperate with and support its current partners and any prospective future partners in attempting to develop STP 3 & 4 successfully, NRG was withdrawing from further financial participation in NINA’s development of STP 3 &

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16 Letter from D. Matthews, NRC, to M. McBurnett, “South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review.” p.17 (April 30, 2013) Exh. INT000060.

17 Ibid, p.9.

18 Letter from Kirkland B. Andrews, Executive Vice President and Chief Financial Officer, NRG Energy Inc. to SEC, dated June 14, 2012, regarding NRG Energy, Inc. Form 10-K for the fiscal year ended December 31, 2011 Filed February 28, 2012 File No. 001-1589, pp 4-5 (June 14, 2012) (available at <http://www.sec.gov/Archives/edgar/data/1013871/000110465912043513/filename1.htm>). Exh. NRC000121.



4.<sup>19</sup> Similarly, as noted above, CPS Energy states is not responsible for any further funding obligations until STP 3 and 4 are in commercial operation.<sup>20</sup> Another investor was The Shaw Group. As discussed in Shaw’s 8-K, dated December 3, 2010, Shaw had entered into a \$100 million revolving credit facility with NINA on November 29, 2010, to be used in financing of the EPC contract for STP 3 & 4.<sup>21</sup> Yet in its October 19, 2012 10-K filing Shaw reported “that it had impaired the loans granted to NINA and that it “has not and does not plan to make additional investments in ABWR related projects.”<sup>22</sup> This leaves Toshiba as the single remaining investor willing to continue financing the projects.

#### **D. Organizational Structure**

**Q. GIVEN THAT ALL THE OTHER INVESTORS IN THE TWO PROJECTS HAVE NOW BACKED OUT, WHERE DOES THAT LEAVE TOSHIBA?**

A. Toshiba now wears a number of hats in and around the two projects. First, it has a 100% interest in its local subsidiary, Toshiba America Nuclear Energy Corp. (TANE). Second, TANE has an approximately 10% ownership interest in Nuclear Innovation North America (NINA) which owns the majority interest in STP 3 & 4. The other 90% of the ownership of NINA is NRG Energy. TANE’s 10% ownership interest entitles TANE to a director position on NINA’s three person board, and the right to name the chief

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<sup>19</sup> NRG, Inc., Quarterly Report (Form 10-Q), page 12 (May 5, 2011) Exh. NRC000129.

<sup>20</sup> Combined Operating License Application, Rev. 9 Part 1 Information (Non-Proprietary Version) Attachment 3, p.12 of 33 (ML13115A291) Exh. INT000059.

<sup>21</sup> Letter from D. Matthews, NRC, to M. McBurnett, “South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review.” p.17 (April 30, 2013) Exh. INT000060.

<sup>22</sup> Ibid, p.17.

financial officer of NINA.<sup>23</sup> Moreover, under the NINA Operating Agreement Toshiba has the right to approve the annual budget and operating plans of NINA.<sup>24</sup> Thus Toshiba has a powerful position on the inside of NINA just based on its 10% equity in NINA.

**Q. WHERE DOES NINA GET ITS FUNDING?**

A. Since, as described above, all the other funders of the STP 3 and 4 have backed out, virtually all the funding available now is being provided by Toshiba. Toshiba has become the banker for the projects. The bad or unwilling financial position of the other major players is manifest in the various supplements and amendments to the Credit Agreement<sup>25</sup>, with NINA and its subsidiaries as “borrowers” and TANE as the “sole lender.” [REDACTED]

[REDACTED] [REDACTED]

[REDACTED]<sup>27</sup>

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23 Third Amended and Restated Operating Agreement of Nuclear Innovation North America, LLC, at § 5.2, p.21 Exh. STP000043.

24 Letter from Kirkland B. Andrews, Executive Vice President and Chief Financial Officer, NRG Energy Inc. to SEC, dated June 14, 2012, regarding NRG Energy, Inc. Form 10-K for the fiscal year ended December 31, 2011 Filed February 28, 2012 File No. 001-1589, p.4 (June 14, 2012) (available at <http://www.sec.gov/Archives/edgar/data/1013871/000110465912043513/filename1.htm>). Exh. NRC000121.

25 Amended and Restated TANE Credit Agreement (Nov. 29, 2010) (ML12138A120) Exh. NRC000132.

26 Third Supplement to the Credit Agreement, p. 1 (August 31, 2011) Exh. NRC000141.

27 Letter from D. Matthews, NRC, to M. McBurnett, “South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review.” pp.18-20 (April 30, 2013) Exh. INT000060.

**Q. HOW ELSE HAS TOSHIBA BEEN INVOLVED IN THE FINANCING OF THE PROJECTS?**

A. Toshiba is not only the “banker” for NINA but was also, together with the Shaw Group, awarded the Amended and Restated Master Engineering Procurement and Construction Agreement contract by NINA in November 2010. (EPC).<sup>28</sup> The EPC contract is the contract for the design and construction of STP 3 & 4, which will be completed by TANE and Shaw acting in conjunction with subcontractors including Westinghouse Electric. Toshiba and Shaw will have overall responsibility for design and configuration control. Westinghouse Electric (a Toshiba subsidiary) will provide engineering services, including design of instrumentation and controls.<sup>29</sup>

**Q. HOW DOES THE TANE CREDIT AGREEMENT INTERACT WITH TOSHIBA’S POSITION AS THE HOLDER OF THE EPC CONTRACT?**

A. First, Section 7.02(c) of the Credit Agreement specifies that a condition precedent to all loans is that the EPC contract with Toshiba be in full force and effect.<sup>30</sup> The purpose of the Credit Agreement is to fund the EPC contract and related activities. The Credit Agreement identifies Toshiba as both the lender as well as the contractor on the EPC contract.<sup>31</sup> Toshiba as lender transfers its loan amounts to NINA, which then transfers payments to Toshiba as EPC contractor for services and equipment.

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28 Id. at p.11.

29 Id. at p.15.

30 Id. at p.16. See also the Amended and Restated Credit Agreement, p.36 (Nov. 29, 2010) (ML12138A120) Exh. NRC000132.

31 Amended and Restated Credit Agreement, Id at p.1 (Nov. 29, 2010) (ML12138A120) Exh. NRC000132.

### III. ANALYSIS

#### A. THE STANDARD SET FORTH IN 10 CFR 50.38

**Q. WHAT IS THE STANDARD SET FORTH BY THE NRC FOR THE DETERMINATION OF WHETHER AN APPLICANT IS SUBJECT TO FOREIGN CONTROL OR DOMINATION STANDARD?**

A. 10 CFR 50.38 reads as follows:

Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license.

The NRC's Final Standard Review Plan (SRP) sets forth the following five factors to consider in determining whether the applicant is foreign owned, controlled, or dominated:

1. Whether any foreign interests have management positions such as directors, officers, or executive personnel in the applicant's organization.
2. Whether any foreign interest controls, or is in a position to control, the election, appointment, or tenure of any of the applicant's directors, officers, or executive personnel.
3. Whether the applicant is indebted to foreign interests or has contractual or other agreements with foreign entities that may affect control of the applicant.
4. Whether the applicant has interlocking directors or officers with foreign corporations.
5. Whether the applicant has foreign involvement not otherwise covered by items 1-4 above.

#### B. REVIEW OF THE FACTS IN THE

## CONTEXT OF SRP FACTORS 1-5

**Q. WHO IS THE APPLICANT IN THIS CASE?**

A. Nuclear Innovation North America LLC (NINA) became the lead applicant for the licensing of STP 3 and 4 as of January 24, 2011.

**Q. AS TO FACTOR 1: DO ANY FOREIGN INTERESTS HAVE MANAGEMENT POSITIONS SUCH AS DIRECTORS, OFFICERS, OR EXECUTIVE PERSONNEL IN THE APPLICANT'S ORGANIZATION.**

A. Yes. Toshiba America Nuclear Energy Corp. (TANE) is a US corporation owned by Toshiba America Inc., also a US corporation. Toshiba America Inc. is in turn a wholly owned subsidiary of Toshiba Corp., a Japanese corporation. Both TANE and Toshiba America Inc. are owned and controlled by Toshiba, a foreign corporation. TANE has a 10% ownership interest in NINA. This ownership interest allows TANE to appoint a member of the board of directors of NINA, and also to appoint NINA's chief financial officer (CFO).<sup>32</sup>

**Q. AS TO FACTOR 2: WHETHER ANY FOREIGN INTEREST CONTROLS, OR IS IN A POSITION TO CONTROL, THE ELECTION, APPOINTMENT, OR TENURE OF ANY OF THE APPLICANT'S DIRECTORS, OFFICERS, OR EXECUTIVE PERSONNEL?**

A. Pursuant to Section 5.2 of NINA's Operating Agreement TANE, based on its 10% ownership interest in NINA, has a right to name one of the corporation's three directors, and also to name the NINA's CFO.

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<sup>32</sup> Third Amended and Restated Operating Agreement of Nuclear Innovation North America, LLC, at § 5.2, Exh. STP000043.

**Q. AS TO FACTOR 3: IS THE APPLICANT INDEBTED TO FOREIGN INTERESTS OR HAS IT CONTRACTUAL OR OTHER AGREEMENTS WITH FOREIGN ENTITIES THAT MAY AFFECT CONTROL OF THE APPLICANT?**

A. NINA, the applicant, is owned by NRG Energy, Inc. (through its subsidiary Texas Genco Holdings, Inc.), with approximately 90% of the shares of NINA. The remaining ownership interest in NINA is held by TANE. NRG Energy, Inc. has been a major investor in NINA and the STP 3 & 4 projects in the past, but NRG has since announced that while, it would cooperate with and support its current partners and any prospective future partners in attempting to develop STP 3 & 4 successfully, **NRG was withdrawing from further financial participation in NINA’s development of STP 3 & 4.**<sup>33</sup>

(Emphasis added).

As of that date, the only entity willing to provide further financial support to the projects was TANE, controlled by Toshiba, and TANE has indeed provided well over half a billion dollars in loans and equity investments to further the licensing process and EPC contract expenditures. Moreover, the NINA board at a meeting in April 2011, granted Toshiba the option to “convert all newly funded debt into equity.”<sup>34</sup>

**Q. AS TO FACTOR 4: DOES THE APPLICANT HAVE INTERLOCKING**

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<sup>33</sup> NRG, Inc., Quarterly Report (Form 10-Q), page 12 (May 5, 2011) Exh. NRC000129.

<sup>34</sup> Letter from D. Matthews, NRC, to M. McBurnett, “South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review.” pp.12,18 (As to Toshiba’s equity and loans through March 2011) (April 30, 2013) Exh. INT000060.

**DIRECTORS OR OFFICERS WITH FOREIGN CORPORATIONS?**

A. As noted in response to Factor 1, TANE appoints a member of NINA's board of directors and also NINA's chief financial officer. In this case TANE has appointed Kiyoshi Okamura, a Japanese citizen, to be its appointed member of NINA's board. According to Toshiba's 2012 Annual Report, Okamura is also Executive Officer and Corporate Vice President of Toshiba Corporation.<sup>35</sup>

**Q. AS TO FACTOR 5: DOES THE APPLICANT HAVE FOREIGN INVOLVEMENT NOT OTHERWISE COVERED BY FACTORS 1-4?**

A. Yes. Toshiba through TANE has a right under the terms of NINA's Operating Agreement to approve NINA's annual budget and operating plans.<sup>36</sup> [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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<sup>35</sup> Id. at pp.11-12.

<sup>36</sup> Letter from Kirkland B. Andrews, Executive Vice President and Chief Financial Officer, NRG Energy Inc. to SEC, dated June 14, 2012, regarding NRG Energy, Inc. Form 10-K for the fiscal year ended December 31, 2011 Filed February 28, 2012 File No. 001-1589, p.4 (June 14, 2012) (available at <http://www.sec.gov/Archives/edgar/data/1013871/000110465912043513/filename1.htm>). Exh. NRC000121.

<sup>37</sup> Third Amended and Restated Operating Agreement of Nuclear Innovation North America, LLC, p.22 Exh. STP000043.

Further, in November 2010 NINA announced the award of the STP 3 & 4 Engineering, Procurement and Construction (EPC) contract to a consortium of TANE (Toshiba) and The Shaw Group, with Westinghouse Electric, another entity with majority Toshiba control, providing the majority of engineering and technical work in the South Texas 3 and 4 project licensing effort.<sup>38</sup>

**Q. CAN YOU SUMMARIZE THE FACTS RELATING TO YOUR ANALYSIS OF FACTORS 1-5?**

A. Yes. There are positive answers to all the questions posed by the factors: As to factors 1, 2 and 4, Toshiba has a right to appoint NINA's chief financial officer, as well as the right to name a director to the three director board of NINA. The person it has appointed is Kiyoshi Okamura, the Executive Officer and Corporate Vice President of Toshiba Corporation, and thus one third of the NINA board is interlocked directly with Toshiba Corporation.

As to factor 3, indebtedness to foreign interests and agreements with foreign entities that may affect control of NINA, Toshiba is the only entity providing ongoing financing for the projects. All U.S. investors have ceased providing funding, and don't appear to be making payments on the loans provided by Toshiba. Toshiba thus has a dominant position as financier of the projects, and the holder of a large amount of NINA's outstanding debt. Therefore, and not surprisingly, Toshiba and its partner The Shaw

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38 Letter from D. Matthews, NRC, to M. McBurnett, "South Texas Project Units 3 and 4 Combined License Application Foreign Ownership, Control or Domination Review." pp.12 (April 30, 2013) Exh. INT000060.



Group, have been awarded the EPC contract to continue with the licensing of the projects, and if licensed, to provide construction, technology, etc. with Toshiba's subsidiary Westinghouse Electric being a major beneficiary under the contract. The Shaw Group is also a subsidiary of a European corporation.

As to factor 5, Toshiba also has the right to approve NINA's annual budget and operating plans. Toshiba is also the beneficiary of [REDACTED]

[REDACTED] Thus it would appear that all the SRP factors clearly indicate foreign control and domination of NINA, the license applicant.

### **C. ANALYSIS OF THE APPLICANT'S PROPOSED NEGATION ACTION PLAN (NAP)**

#### **Q. IF THE APPLICANT APPEARS TO BE SUBJECT TO FOREIGN DOMINATION OR CONTROL WHAT DOES THE STANDARD REVIEW PLAN (SRP) RECOMMEND?**

A. The SRP sets forth six examples of measures that may be sufficient to negate foreign control or domination:

1. Modification or termination of loan agreements, contracts, and other understandings with foreign interests.
2. Diversification or reduction of foreign source income;
3. Demonstration of financial viability independent of foreign interests;
4. Elimination or resolution of problem debt;
5. Assignment of specific oversight duties and responsibilities to board members; and,

6. Adoption of special board resolutions.

**Q. WHAT ARE THE ELEMENTS OF THE NEGATION ACTION PLAN (NAP) PROPOSED BY NINA?**

A. The proposed plan has two key parts: A Security Committee and a Nuclear Advisory Committee (NAC).

**Q. WHAT WOULD BE THE ROLE OF THE SECURITY COMMITTEE?**

A. The Security Committee would consist of the Chairman of the NINA board of directors and two independent member directors, all three having to be U.S. citizens. The Security Committee would be assigned “exclusive authority” to decide for the Board all matters coming before the Board that relate to nuclear safety, security or reliability.

**Q. WHAT WOULD BE THE ROLE OF THE NUCLEAR ADVISORY COMMITTEE?**

A. The Nuclear Advisory Committee would have independent oversight over the design, construction and operation of STP 3 and 4, and any matter related to nuclear safety, quality, security or reliability. NRG asserts that the Advisory Committee will provide transparency to the NRC and other U.S. government authorities regarding any potential for foreign control or domination of NINA or STPNOC during the period that NINA is the licensee responsible for design and construction and the period that STPNOC is acting as licensee for operation of the plants. The Advisory Committee would have a charter and be composed of at least three independent individuals, all U.S. citizens, none of whom are officers, directors or employees of any of NINA, STPNOC or

any of the STP owners or their affiliates.

**Q. HOW DOES THE PROPOSED NAP SOLVE THE PROBLEM OF THE CONTROL OR DOMINATION OF THE LICENSEE BY FOREIGN CORPORATIONS?**

A. The problem is the financial domination of the licensee by Toshiba through its subsidiaries and affiliates. As shown above, Toshiba is part owner of the licensee, has a third of the positions on its board of directors, has a right to approve the budget and operating plans, and appoints the applicant's Chief Financial Officer. This is all on the inside. On the outside Toshiba is supplying all the licensee's current funding through various and ongoing loans, many of which have been in default, such defaults having been waived at intervals by an optionally helpful Toshiba. And NRG, the entity with the 90% ownership interest in NINA, has declared that it does not have financial control of NINA. Also on the outside Toshiba has also benefitted from its position as funder of the STP 3 and 4. The same entity it finances (NINA) has awarded it and its subsidiary Westinghouse Electric the [REDACTED] EPC contract. The creation of the two committees proposed by the NAP don't address any of this domination and control.

**Q. HOW DOES THE PROPOSED NAP COMPARE WITH THE SIX EXAMPLES SET FORTH IN THE SRP?**

A. The first example suggests: "Modification or termination of loan agreements, contracts, and other understandings with foreign interests." The proposed NAP does not mention any modification of the "loan agreements, contracts, and other understandings" with Toshiba, that would in any way reduce its dominance on both the inside and outside

of NINA.

The second example suggests: “Diversification or reduction of foreign source income.” Loan revenue from Toshiba is the only “revenue” being received by the applicant NINA. All the other investors have stated they will not provide any further financing. Without Toshiba the project collapses.

The third example suggests: “Demonstration of financial viability independent of foreign interests.” The other investors have backed out and no new ones have come forward. There would need to be a source of substantial income independent of Toshiba and there isn’t any.

The fourth example suggests: “Elimination or resolution of problem debt.” There is no alternative source of funding to refinance the current and future loan obligations to Toshiba.

The Fifth example: “Assignment of specific oversight duties and responsibilities to board members.” It is not clear how this would remove the comprehensive financial control and domination currently exercised by Toshiba in its functions as set forth above. Given its funding power and contractual rights, any threat to Toshiba could lead at any time to the collapse of the project and the loss of the previous investments of other parties.

The Sixth example suggests: “Adoption of special board resolutions.” It is not clear what such resolutions could be that would eliminate Toshiba’s control and domination while not leading at any time to the collapse of the project and the loss of the

previous investments of other parties.

In sum, the proposed NAP doesn't appear to have addressed the problem of the type of control and domination in the current situation, and it is not clear what could remove Toshiba's "domination and control" without posing a serious threat to ongoing financial participation by Toshiba.

**Q. WHAT IS YOUR CONCLUSION WITH RESPECT TO THE NAP MEASURES?**

A. Given the clear control and domination by Toshiba, the proposed superficial NAP is clearly offered by NINA and Toshiba in the hope that it would be accepted while leaving Toshiba's dominant position and funding intact.

**IV. CONCLUSIONS**

**Q. WHAT DO YOU CONCLUDE WITH RESPECT TO WHETHER TOSHIBA HAS CONTROL OR DOMINATION OF THE APPLICANT?**

A. For all the reasons set forth above, clearly Toshiba, a foreign corporation, exercises control and domination over the license applicant in this case.

**Q. WOULD THE PROPOSED NAP NEGATE TOSHIBA'S CONTROL AND DOMINATION OF THE APPLICANT?**

A. The provisions of the proposed NAP under the circumstances in this case would have no significant impact on Toshiba's control and domination.

June 30, 2013

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

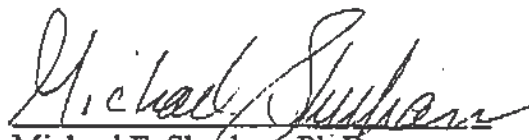
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of: )  
)  
SOUTH TEXAS PROJECT NUCLEAR ) Docket Nos: 52-012, 52-013  
OPERATING CO. )  
Application for the South Texas Project )  
Units 3 and 4 Combined Operating )  
License )  
\_\_\_\_\_ )

AFFIDAVIT OF MICHAEL F. SHEEHAN, Ph.D.  
CONCERNING HIS PREFILED DIRECT TESTIMONY  
ON CONTENTION FC-1

I, Michael F. Sheehan, do declare under penalty of perjury that my statements in the "Prefiled Direct Testimony of Michael F. Sheehan, Ph.D. on Contention FC-1" are true and correct to the best of my knowledge and belief.

DATE: June 30, 2013

  
Michael F. Sheehan, Ph.D.  
Sheehan & Sheehan Economics LLC  
33126 Callahan Road  
Scappoose, Oregon 97056  
503-543-7172 Fax 503-543-7172  
[mikeshsheehan@centurytel.net](mailto:mikeshsheehan@centurytel.net)