

## PMSTPCOL PEmails

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**From:** Chappell, Coley [ccchappell@STPEGS.COM]  
**Sent:** Wednesday, January 18, 2012 3:38 PM  
**To:** Joseph, Stacy  
**Subject:** RE: Teleconference on Friday, January 20th  
**Attachments:** 01-17-2012 Ownership and Control of NINA (10 CFR 50 38 Compliance)(1).pdf

Stacy,

The attached file, suitable for public disclosure, is provided as requested below.

Regards,  
Coley Chappell  
NINA Licensing STP 3&4

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**From:** Joseph, Stacy [<mailto:Stacy.Joseph@nrc.gov>]  
**Sent:** Wednesday, January 11, 2012 12:42 PM  
**To:** Chappell, Coley  
**Subject:** Teleconference on Friday, January 20th

Coley,

Please use the following bridge line for next Friday's call at 10 am:

800-857-2750  
Passcode: 45511

Also, if you are going to provide the staff any written information ahead of time, please send via email so that we can easily add the documents to ADAMS and the hearing file.

Thank you,  
Stacy

Stacy Joseph  
Project Manager  
NRO/DNRL  
Office Telephone: 301-415-2849

**Hearing Identifier:** SouthTexas34Public\_EX  
**Email Number:** 3246

**Mail Envelope Properties** (C7F098E3C31A0141A02043F0B8E656EE397EE30BAD)

**Subject:** RE: Teleconference on Friday, January 20th  
**Sent Date:** 1/18/2012 3:37:49 PM  
**Received Date:** 1/18/2012 3:38:01 PM  
**From:** Chappell, Coley

**Created By:** ccchappell@STPEGS.COM

**Recipients:**  
"Joseph, Stacy" <Stacy.Joseph@nrc.gov>  
Tracking Status: None

**Post Office:** exgmb1.CORP.STPEGS.NET

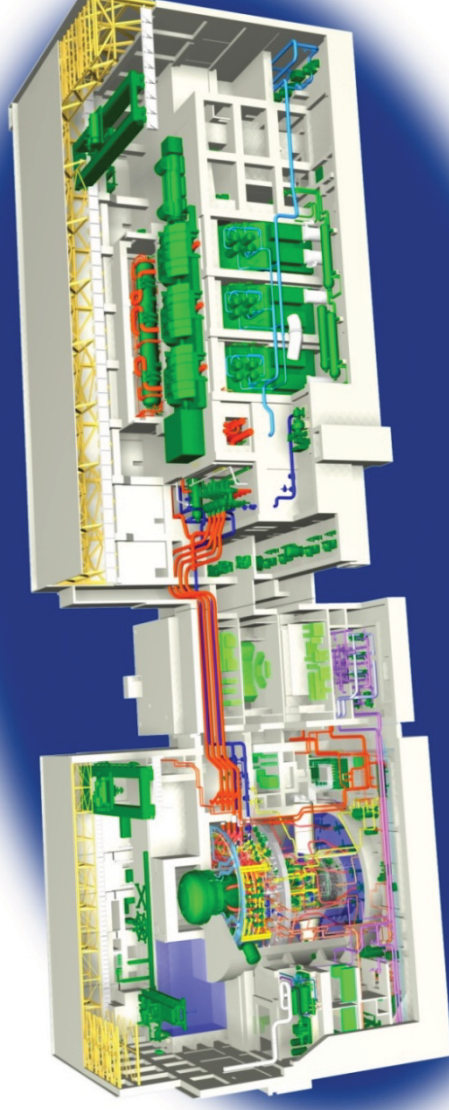
Files	Size	Date & Time	
MESSAGE	772	1/18/2012 3:38:01 PM	
01-17-2012 Ownership and Control of NINA (10 CFR 50 38 Compliance)(1).pdf			940451

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**



# South Texas Project Units 3 & 4 Combined License Application

## Ownership and Control of NINA



## **Issue statement:**

Provide background regarding the ownership and financial support for NINA so there is a common understanding for evaluating STP 3&4 compliance with the 10 CFR 50.38 prohibition against foreign control or domination (FOCD) of licensed activity during the phases of the project:

- 1) Pre-COL Development Phase
- 2) Post-COL Development Phase
- 3) Construction Phase after closing of Project Finance, e.g., DOE Loan Guarantee
- 4) Operations Phase when STP Nuclear Operating Company will operate STP 3&4 and control nuclear safety and security

## **NRC Licensing Requirement:**

If there is material foreign investment in a reactor licensee, a Negation Action Plan must impose measures to assure that U.S. citizens can restrict foreign persons from exercising control so as to:

- 1) Gain access to or divert special nuclear material;
- 2) Gain access to classified national security information; or
- 3) Restrict the ability of the licensee to comply with NRC requirements.

## **Desired Outcomes:**

- NRC understands proposed ownership structure of NINA
  - NRG owns 90% of NINA and has 90% of the voting rights for the NINA Board, including ability to select the CEO and CNO.
- NRC understands the provisions for funding of NINA
  - Remaining funding to be provided by TANE in order to obtain COLs will constitute a small fraction of all the total funding for the project.
  - Major funding for Construction will have to come from a future Project Finance, e.g., loan from U.S. Federal Finance Bank with a DOE Loan Guarantee.
- NRC understands NINA's negation measures
  - Throughout the current Pre-COL and Post-COL development phase, the U.S. citizen CEO and CNO exercise control over nuclear safety, security and reliability as needed to comply with 10 CFR 50.38.
  - Further measures are required prior to construction.

# Executive Summary

- **Ownership**—NRG, a U.S. company, owns 90% of the applicant NINA. Toshiba, through its U.S. subsidiary Toshiba America Nuclear Energy Corporation (TANE), owns 10% of NINA. This will not change—NINA has decided to maintain the present ownership arrangements.
- **Control**—NRG exercises all U.S. safety and security responsibilities required to comply with the AEA. Governance structure and robust Negation Action Plan, based on NRC guidance, prevent foreign control.
- **Funding**—Majority of funding for COL project has come from U.S. company—NRG—small percent from Toshiba. Remaining COL funding (less than 1% of overall project costs) coming from Toshiba in the form of loans from TANE. Once COL is issued, funding for construction will be through project finance, e.g., loan from U.S. Federal Finance Bank with DOE Loan Guarantee.
- **Policy Issues**—First “merchant” new reactor project; failure to license at this stage and on these facts has serious implications for future COL applications for merchant plants.

# Ownership

- NRG owns 90% of NINA
  - In the Spring 2011, NRG announced that it intended to limit any further financial support for the STP 3&4 project due to changed circumstances after the events at Fukushima.
  - NINA initially assumed this would result in a change of the ownership structure of NINA, with TANE becoming a majority owner.
  - The FOCD Negation Action Plan was revised to provide flexibility to accommodate as much as 90% foreign ownership, e.g., by TANE (COLA, Revision 6).
- No change in the ownership structure has occurred.
- NINA has determined to maintain the current ownership through issuance of COL
  - Proposed flexibility will be removed from FOCD Negation Action Plan.
  - NRG will remain 90% owner, and TANE will remain 10% owner.
- Any business decision to change NINA's ownership after issuance of COL would need NRC approval (10 CFR 50.80 indirect license transfer).

# Control

- Governance
  - NRG maintains 90% ownership and 90% of the voting rights for NINA Board, which protects its interest in the project.
  - TANE cannot control NINA by outvoting or otherwise circumventing NRG's 90% voting authority.
  - NINA Chairman must be a U.S. citizen.
  - NRG Board Member has authority to appoint the NINA CEO and CNO.
- Negation Action Plan (App. 1D to COLA)
  - U.S. citizen CEO and CNO exercise control over nuclear safety, security and reliability as needed to comply with 10 CFR 50.38 throughout development phases.
  - Prior to construction, Security Committee of Board of Directors will be formed
    - 3 U.S. citizen members (majority will be independent U.S. citizen directors).
    - Authority over all matters that must be under US control, including matters pertaining to nuclear safety, security or reliability.
    - Determines staffing of key executive positions.
- STP Nuclear Operating Company (STPNOC) will operate STP 3&4
  - Same authority for STP 3&4 as for STP 1&2.

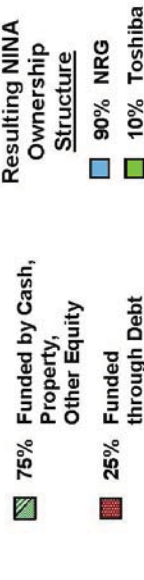


# Funding

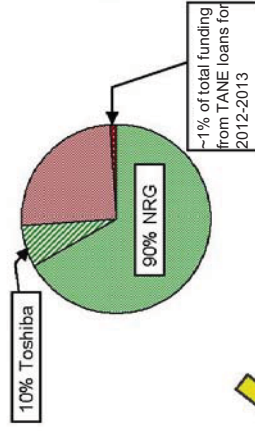
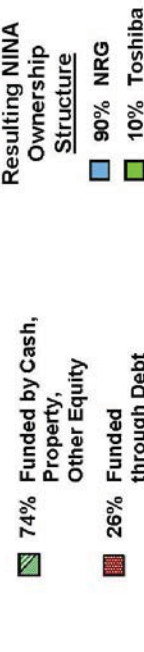
- Through COL
  - To date, NRG has provided most of the funding for NINA [see *next Slide*].
  - Remaining funding for development and licensing is being provided by TANE loans
    - Less than 1% of total investment in project.
- Post-COL
  - Financial Closing of “Project Finance” Must Occur Prior to Construction
    - Major funding for construction will have to come from a future Project Finance, e.g., loan from U.S. Federal Finance Bank with a DOE Loan Guarantee.
    - Previous loans (including TANE loans) will have to be paid off.
  - NINA proposes a License Condition to require a Financial Closing or a Conditional DOE Loan Guarantee approval prior to commencing construction.

# Sources of Funding for STP 3&4

## Funding to Date 12/31/2011

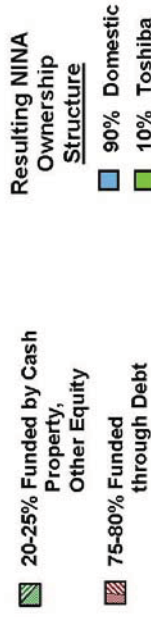


## Funding to Issuance of COL



## Post-COL Construction Finance Funding – License Condition

- Proposed License Condition would require closing of project finance prior to construction
- Substantial equity has already been contributed
- Debt is just one method of funding NINA obligations
- Debt does not impact ownership percentages
- All Pre-COL debt (mostly from TANE) will have to be paid off and replaced with new debt at financing, e.g., U.S. Federal Finance Bank (Shaw debt may be converted to equity)
- Debt will always remain a critical method of funding the project
- License Condition must be satisfied before Construction begins



## CONSTRUCTION

# Key Policy Issues

- NRC requires applicant to demonstrate it “possesses or has reasonable assurance of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs” – 10CFR 50.33(f)(1).
- For all practical purposes, Merchant Plants require a License Condition to address the financial qualifications issue
  - Any new Merchant Plant project is unlikely to possess or have reasonable assurance of obtaining the funding required for construction unless it can complete the Financial Closing of a Project Finance
    - However, Lenders will insist upon issuance of the COL (a “catch-22”) before the closing of a large infrastructure Project Finance can be completed.
- The conditions required by Lenders for a Project Finance provide assurance that the funding will be adequate.
- DOE’s Regulations for Loan Guarantees illustrate the Lender requirements:
  - 10 CFR 609.10(d)(8) (requiring that “[t]he amount of the loan guaranteed, when combined with other funds committed to the project, will be sufficient to carry out the project, including adequate contingency funds”).
  - 10 CFR 609.10(d)(9) (requiring that as a condition to issuance of a loan guarantee there must be “reasonable prospect of repayment by Borrower of the principal and interest” for all project debt, *i.e.*, the project revenue must be sufficient to not only pay O&M costs required to generate revenue, but also to make debt payments).
- These rules present an opportunity to fashion an appropriate License Condition.

# Path Forward

- NINA requests issuance of the COLs based upon NRG maintaining its current 90% ownership of NINA
  - Under NINA governance, NRG has 90% voting authority on NINA Board, including authority to appoint CEO and CNO.
- FOCD Negation Action Plan is intended to mitigate any possibility for foreign control or domination
  - The U.S. citizen CEO and CNO exercise U.S. control to assure compliance with 10 CFR 50.38 throughout the pre-COL and post-COL development phases.
  - Prior to construction, any decision-making authority by NINA regarding nuclear safety or compliance with NRC requirements will be delegated to a Security Committee
    - 3 U.S. citizen directors (majority independent) who would be selected by NRG Board Member under the current ownership and governance structure of NINA.
- STPNOC will operate STP 3&4
  - Existing Operating Agreement provides that STPNOC has “sole authority” to make nuclear safety decisions, comply with NRC requirements, and protect the public health and safety (the same authority it has for STP 1&2).
  - STPNOC will control security, including all special nuclear material and any classified information
    - STPNOC maintains Facility Security Clearance and FOCI compliance.

# Questions?





## ■ Backup Slides



# Potential “Control” from Funding Under Current and Planned NINA Ownership

- Development Phase Pre-COL & Post-COL
  - The remaining funding for NINA to obtain the COLs is to be provided through loans extended by TANE
    - This remaining amount is approximately 1% of the total investment that has been made in the project
  - NRG has made a substantial investment
    - NRG maintains 90% ownership and 90% of the voting rights for NINA Board, which protects its interest in the project
      - NRG’s “write-off” relates to its accounting treatment
      - NRG’s ownership interest still has value
    - TANE cannot control NINA by outvoting or otherwise circumventing NRG’s 90% voting authority
  - The U.S. citizen CEO and CNO (selected by NRG) exercise U.S. control to assure FOCD compliance
    - TANE is not able to: (1) gain access to or divert special nuclear material; (2) gain access to classified national security information; or (3) restrict the ability of NINA to comply with NRC requirements

# Potential “Control” from Funding Under Current and Planned NINA Ownership

- Construction Phase
  - Proposed FQ License Condition
    - Funding must be provided through Project Finance, e.g., DOE Loan Guarantee
    - Majority of loans likely to come from the United States Government
  - NINA’s owners will need to make business decisions
    - If there were any new investors to replace NRG in whole or part, this would require an NRC License Transfer approval (10 CFR 50.80)
    - If there is no business decision to proceed under the existing or a new ownership structure, no construction could commence
  - Prior to Construction, the NINA Security Committee will be delegated corporate authority to exercise U.S. control to assure FOCD compliance
    - Security Committee has a majority of Independent U.S. citizen directors, who would be appointed by NRG under current governance structure
    - STPNOC will control site security, including receiving new nuclear fuel
    - TANE will not be able to: (1) gain access to or divert special nuclear material; (2) gain access to classified national security information; or (3) restrict the ability of NINA or STPNOC to comply with NRC requirements



# Potential “Control” from Funding Under Current and Planned NINA Ownership

## ■ Operations Phase

- Funding for operations will come primarily from U.S. sales of electricity
- STPNOC will control the operation of STP 3&4 (same as STP 1&2)
  - STPNOC will control possession of all special nuclear material
  - Operating Agreement provides that STPNOC has:
    - “full control over all Operations and making of Capital Improvements”
    - “sole authority” as the licensed operator “to make all decisions to protect the public health and safety as required by the Operating Licenses and applicable laws and regulations and as are necessary to comply with applicable law and regulations”
  - STPNOC controls site security and access to classified information
- To the extent NINA has a role as an owner, the NINA Security Committee will be delegated corporate authority to exercise U.S. control to assure FOCD compliance
  - Security Committee has a majority of Independent U.S. citizen directors, who would be appointed by NRG under current governance structure
  - TANE will not be able to: (1) gain access to or divert special nuclear material; (2) gain access to classified national security information; or (3) restrict the ability of NINA or STPNOC to comply with NRC requirements

# Construction Finance Funding

- Financial Closing of “Project Finance” Must Occur Prior to Construction
  - To be required by a License Condition
  - Will include mix of Equity and Debt
- Equity
  - Substantial equity has already been contributed (90% by NRG)
  - Additional equity will likely be required
    - NRC would need to review and approve any new investor that provides material equity
- Debt that comes from DOE Loan Guarantee Program will mitigate potential influence from TANE debt
  - Debt from development effort will have to be paid off
    - This is necessary so that new debt can have a first lien
      - Required by DOE regulations
    - This means that the current loans from TANE will be paid off
  - New debt must come from the United States Government
    - U.S. Federal Finance Bank
    - Thus, majority of project funding will be U.S. loans
    - DOE would like to see some loans from Japan to support the project
    - In any case, all creditor rights must be consistent with the interests of the United States
      - Required by DOE regulations
      - This means foreign lenders cannot control the project



## List of Acronyms

CEO	Chief Executive Officer
CNO	Chief Nuclear Officer
COL	Combined license
COLA	COL Application
DOE	Department of Energy
FOCD	Foreign ownership, control or domination (10 CFR 50.38)
FOCI	Foreign ownership, control or influence (10 CFR 95.17(a)(1))
FQ	Financial qualifications (10 CFR 50.33(f))
NINA	Nuclear Innovation North America
NRG	NRG Energy Inc.
STP	South Texas Project
STPNOC	STP Nuclear Operating Company
TANE	Toshiba America Nuclear Energy Corporation