#### December 14, 2011

Mr. Scott Head, Manager Regulatory Affairs Nuclear Innovation North America, LLC 4000 Avenue F Bay City, TX 77414

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 388 RELATED TO

SRP SECTION 1 FOR THE SOUTH TEXAS PROJECT COMBINED LICENSE

**APPLICATION** 

Dear Mr. Head:

By letter dated September 20, 2007, STP Nuclear Operating Company (STP) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within **30** days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

S. Head -2-

If you have any questions or comments concerning this matter, I can be reached at 301-415-2849 or by e-mail at <a href="mailto:Stacy.Joseph@nrc.gov">Stacy.Joseph@nrc.gov</a> or you may contact George Wunder at 301-415-1494 or <a href="mailto:George.Wunder@nrc.gov">George.Wunder@nrc.gov</a>.

Sincerely,

/RA/

Stacy Joseph, Project Manager LB3 Licensing Branch Division of New Reactor Licensing Office of New Reactors

Docket Nos. 52-012

52-013

eRAI Tracking No. 6167

Enclosure:

Request for Additional Information

cc: William Mookhoek

Coley Chappell Loree Elton

S. Head -2-

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<u>Distribution</u>: PUBLIC NGE 1/2 R/F GWunder, NRO SGreen, NRO SJoseph, NRO ASimmons, NRR MSpencer, OGC

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NRO-002

OFFICE	NRR/DPR/PFPB/TR	PFPB/BC	LB3/PM	OGC	LB3/L-PM
NAME	ASimmons	CRegan	SJoseph	MSpencer	GWunder
DATE	10/28/2011	10/31/2011	12/13/2011	12/13/2011	12/14/2011

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<sup>\*</sup>Approval captured electronically in the electronic RAI system.

## Request for Additional Information No. 6167 Revision 6

#### 12/14/2011

South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 01 - Introduction and Interfaces
Application Section: General Financials

QUESTIONS for Financial, Policy, & Rulemaking Branch (NRR/DPR/PFPB)

#### 01 - 24

The request for additional information (RAI) is for Part 1, General and Financial Information, Rev. 6 of the combined license application (COLA) for the South Texas Project, Units 3 and 4. On June 23, 2011.

NINA submitted an update to the South Texas Project Units 3 and 4, Combined License Application (COLA) Part 1, General and Financial Information (ML111780305). The update to the COL application included updated information regarding financial qualifications and ownership interests in STP 3 and 4. In order for the staff to make a determination, provide responses to the following questions.

#### **Question 1: Bases for Construction Cost Estimate**

Pursuant to Appendix C to Part 50, applicants for a combined license must provide a construction cost estimate and a statement describing the bases from which the construction cost estimate is derived.

## **Background**

The 10Q statement for the Shaw Group filed with the Securities and Exchange Commission on June 29, 2011, stated:

On November 29, 2010, we entered into an expanded global strategic partnership with Toshiba via a commercial relationship agreement under which we will have certain exclusive opportunities for providing [Engineering, Procurement, and Construction] EPC services for new Toshiba ABWR nuclear power plants worldwide, except in Japan and Vietnam. As part of the expanded relationship, we assumed the role of EPC contractor for NINA's South Texas Project Expansion, which plans to use Toshiba ABWR technology for two new nuclear units, South Texas Project Units 3 and 4. As part of our \$250 million commitment, on November 29, 2010, we provided NINA with a \$100 million credit facility to assist in financing the development of the South Texas Project Units 3 and 4.

During the three months ended May 31, 2011, NINA asked that we cease the majority of the work relating to individual orders issued under our EPC contract. Additionally, NINA's majority owner [NRG] announced it was withdrawing from further financial participation in that company, and a major municipal utility [CPS Energy] announced it would indefinitely suspend all discussions regarding a potential agreement to purchase the power from the proposed facilities. Given the changes to this project, we reviewed the security supporting the loans outstanding (primarily partially manufactured equipment and other assets) and, due to the uncertainty of realizing value on the security, we impaired the loans granted to the project entities totaling \$48.1 million. We currently do not plan to invest any additional funds in support of this project but

continue to work with the other secured creditor to maximize the value of NINA and its assets, including the proposed project.

In order for the staff to determine the reasonableness of the construction cost estimate, provide an updated estimate of construction costs and identify the bases for the estimate to meet the requirements of Appendix C to Part 50.

An Engineering, Construction and Procurement contract that includes an updated construction cost estimate may be an acceptable form of supporting documentation to provide a basis for the construction cost estimate and allow the staff to evaluate its reasonableness.

Given the impairment of the Shaw Group's loans to the project entities, provide updated information regarding the current status of the EPC. If the fixed price EPC agreement has not been finalized, please provide the schedule for implementing the fixed price EPC.

# **Question 2: Sources of funds for Operation: Purchase Power Agreements**

Pursuant to 10 CFR 50.33(f)(2), "the applicant shall submit information that demonstrates that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated operation costs for the period of the license...and shall indicate the source(s) of funds to cover these costs."

Pursuant to 10 CFR 50.33(f)(5), "The Commission may request an established entity or newly-formed entity to submit additional or more detailed information respecting its financial arrangements and status of funds if the Commission considers this information appropriate. This may include information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility.

Per NUREG-1577, information on the sources of funds should include any long-term contracts that the applicant has for the plant, contracts or other arrangements with relevant transmission or grid reliability authorities.

## **Background**

Purchase Power Agreements that provide supporting documentation for revenue and cost projections, and a basis for the operation cost estimates, may serve as the basis for the staff's evaluation of the applicant's ability to obtain the funds necessary to continue to conduct the licensed activities and to decommission the facility. Identification of a buyer committed to purchasing electrical output of South Texas 3 and 4 at a specific price is an indication of project viability.

Provide PPAs or binding Memorandums of Understanding, including the terms and conditions of the purchase power agreement, the term of PPA and whether or not the counterparty/offtaker is Investment Grade.

On March 21, 2011 CPS Energy issued a press release stating that it was indefinitely suspending all discussions with NRG regarding a purchase power agreement (PPA) for power from the proposed South Texas Units 3 and 4.

Given the withdrawal of CPS Energy's commitment to purchase power from the proposed STP Units 3 and 4, provide updated, detailed information that demonstrates your possession of, or reasonable assurance of obtaining, the funds necessary to cover estimated operation costs for the period of the license and the source(s) of funds to cover these costs, and your ability to continue the conduct of the activities authorized by the license and to decommission the facility.

Provide the basis of CPS Energy's decision to withdraw its commitment to purchase power from STP Units 3 and 4. Has any other purchaser provided a formal intent to purchase power under contract? What was the value of the PPA withdrawn, and the duration and quantity of output it would have purchased? How much of the decommissioning funding was planned to derive from the suspended PPA?

## **Question 3: Additional Financial Agreements**

Pursuant to 10 CFR 50.33(f)(5), "The Commission may request an established entity or newly-formed entity to submit additional or more detailed information respecting its financial arrangements and status of funds if the Commission considers this information appropriate. This may include information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility."

Please indicate the (1) sources of funds currently available, (2) credit rating of each source of funds, and (3) total amounts required to address the following:

Construction cost overruns, including delays in procurement, construction, or testing, staffing issues or delays in financing, or unanticipated supply interruptions.

Default Contributions or additional equity contributions which may be required in the case of default of one of the parties. State the amount to be provided.

Funding for a 12 month debt service reserve equal to principal and interest payments due or expected to be due under any loan agreement.

Additional equity contributions or letters of credit to be drawn in the event of a shortfall in debt service payments.

Credit Subsidy Costs or any fees related to obtaining any debt instrument or loan.

Due to the fact that NINA does not have investment grade credit rating, indicate the source of funds to pay expenses for up to one year of potential outage costs.

Does NINA anticipate any changes to its decommissioning funding method based on the creditworthiness of new investors? If there are multiple owners, how will the decommissioning funding obligations be allocated among the owners?

How will changes in the proposed terms of the transaction impact the amount of the credit subsidy cost for any future DOE loan guarantee?

What is the total of funds required in addition to the construction cost estimate, including, but not limited to, the costs and contingencies listed above, to meet all financing conditions?

## **Question 4: Tax Implications**

Pursuant to 10 CFR 50.33(f)(2), "the applicant shall submit information that demonstrates that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated operation costs for the period of the license...and shall indicate the source(s) of funds to cover these costs."

Pursuant to 10 CFR 50.33(f)(5), "The Commission may request an established entity or newly-formed entity to submit additional or more detailed information respecting its financial arrangements and status

of funds if the Commission considers this information appropriate. This may include information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility."

Does the proposed project qualify for any tax incentives at the Federal and State level? What is the estimated value, if any, of the tax incentives? If the project no longer qualifies for tax incentives how will the applicant cover their costs, including operations, maintenance and interest?

## **Question 5: Sources of funds for Operation: Income Statement**

Pursuant to 10 CFR 50.33(f)(2), "...the applicant shall submit information that demonstrates that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated operation costs for the period of the license...and shall indicate the source(s) of funds to cover these costs."

Pursuant to 10 CFR 50.33(f)(5), "The Commission may request an established entity or newly-formed entity to submit additional or more detailed information respecting its financial arrangements and status of funds if the Commission considers this information appropriate. This may include information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility."

Submit a projected income statement for the first ten years of operations, including the following rows of information: total revenues from sales of energy, operations expenses, overhead and administration expenses, subtotal (net operating income), other income, debt financing(interest), decommissioning expense, taxes and grand total. The format should follow the model as submitted by Constellation Energy in its 2009 license transfer application on January 22, 2009 (ML09290101). Provide third party substantiation for revenue and expense assumptions. Include a summary of the experience and qualifications of the preparer(s) of the projection, the basis of the projection, and citations to the information sources used in the projection.

For the projected income statements, perform the following sensitivity analyses:

Base Case: 100% Market based revenue

Sensitivity Analysis 1: 100% Market based revenue with at 10% reduction in MWhr Sales

Sensitivity Analysis 2: 100% Market based revenue with a 10% increase in Operating Expenses

#### **Question 6: Sources of funds for Operation: Market Price Projection**

Pursuant to 10 CFR 50.33(f)(2), "...the applicant shall submit information that demonstrates that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated operation costs for the period of the license..."

Provide a market price projection for power for the same 10 yr period to substantiate revenue projections for question 5. Include a summary of the experience and qualifications of the preparer(s) of the projection, the basis of the projection, and citations to the information sources used in the projection. What impact will lower than expected natural gas prices have on the applicant's ability to cover costs, including operations, maintenance and interest, for STP Units 3 and 4 project assuming no changes in direct costs or in subsidies?

# **Question 7: Projected Statement of Operating Cashflows**

Pursuant to 10 CFR 50.33(f)(2), "...the applicant shall submit information that demonstrates that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated operation costs for the period of the license..."

Submit a projected statement of operating cashflows for the first ten years of operations, including debt service payments, using the same revenue assumptions as the Base Case income statement. Include a summary of the experience and qualifications of the preparer(s) of the projection, the basis of the projection, and citations to the information sources used in the projection. Perform the same two sensitivity analyses as for the projected income statement.

#### Question 8: South Texas Units 3 and 4 Project Financial Model

Provide the Financial Plan and Financial Model for South Texas Units 3 and 4, including the Operating Revenue Schedule, debt coverage ratio and any other supporting analyses. Indicate the financial criteria required for the project to advance to the construction phase.

In a February 22, 2011 call with investors, NRG CEO David Crane made the following statement in response to a question about financial returns for STP Units 3 and 4:

[T]hrough the first few years, when we've talked about receiving \$500 million of cash, that's based on our view on where gas prices go, which is, obviously, some way up from where they are now, sort of into the \$6 to \$7 range. Having said that...we've stressed the returns on the nuclear project from an IRR perspective, sort of \$4 gas in perpetuity model. And the IRR in the project, it would still be in double digits, but obviously, the higher gas prices, the better we do. But it works, the numbers work even at a \$4 gas environment. And the reason that is the case... is because, obviously, the tax benefits associated with nuclear project, particularly, the production tax credits, meaning that through the first several years of the nuclear project, the economics are more driven actually by the tax benefits than they are by the price of electricity.

Yes, so the returns would be in the teens area in the \$4, in perpetuity model. Again, this is based on the idea that we're running a model where there's roughly 1,000 megawatts of power sold by long-term contract, and the rest is taken into the merchant market.

Provide the financial analysis that supports the statement "returns would be in the teens area in the \$4 perpetuity model" made by Mr. Crane, with details about the revenue, off take, and tax benefit assumptions. Is the financial model described by Mr. Crane still valid or have there been modifications? Indicate the financial factors that changed after these statements which resulted in NRG's decision to cease further financial participation in the project.

## **Question 9: Financial Reports**

Per 10 CFR 50.33(f)(4) Each application for a construction permit, operating license, or combined license submitted by a newly-formed entity organized for the primary purpose of constructing and/or operating a facility must also include information showing:

- (i) The legal and financial relationships it has or proposes to have with its stockholders or owners;
- (ii) The stockholders' or owners' financial ability to meet any contractual obligation to the entity which they have incurred or proposed to incur; and
- (iii) Any other information considered necessary by the Commission to enable it to determine the applicant's financial qualification.

The applicant has not provided the information required by 10 CFR 50.33(f)(4)(i-iii). Provide the required information, in sufficient detail for the staff to make a determination, including but not

limited to, updated financial reports (or links to SEC filings), including income, balance sheet and cash flow statements for the project equity and debt participants.

## **Regulatory Basis**

10 CFR 50.33(f)(5) states: The Commission may request an established entity or newly-formed entity to submit additional or more detailed information respecting its financial arrangements and status of funds if the Commission considers this information to be appropriate.

NUREG 1577, Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance states: "The reviewer will determine the financial qualifications of a licensee applicant...based on the adequacy of the relevant information provided and the applicant's ability to meet the standards stipulated in the NRC's regulations."

# Appendix C to Part 50 states:

With respect, however, to the applicant which is a newly formed company established primarily for the purpose of carrying out the licensed activity, with little or no prior operating history, somewhat more detailed data and supporting documentation will generally be necessary.

Further, per Appendix C to Part 50, Section II:

- A. Applications for Construction Permits or Combined Licenses
- 2. Source of construction funds. The application should specifically identify the source or sources upon which the applicant relies for the funds necessary to pay the cost of constructing the facility, and the amount to be obtained from each. With respect to each source, the application should describe in detail the applicant's legal and financial relationships with its stockholders, corporate affiliates, or others (such as financial institutions) upon which the applicant is relying for financial assistance. If the sources of funds relied upon include parent companies or other corporate affiliates, information to support the financial capability of each such company or affiliate to meet its commitments to the applicant should be set forth in the application. This information should be of the same kind and scope as would be required if the parent companies or affiliates were in fact the applicant. Ordinarily, it will be necessary that copies of agreements or contracts among the companies be submitted.