PROJECT SCOPE DOCUMENT

To: TBD
PREQ No: [by Procurement Group]

Plant / Unit: San Onofre Units 2&3 (SONGS)
NECP Number: N/A
File No:
Project Title: Independent Spent Fuel Storage Installation (ISFSI) Expansion

Description of Project Scope:
Revision 0: Initial Issue, Request for Proposal

Background:
The SONGS site will be expanding the ISFSI in its current location in the North Industrial Area (NIA) and
off-loading all fuel and other radiological waste from the Unit 2 and Unit 3 spent fuel pools. This
expansion will also include storage of any greater-than-class “C” (GTCC) waste generated from vessel
segmentation. The current objective is to off-load the spent fuel pools to the dry fuel storage as quickly
as possible. These actions are necessary in light of the continuing failure by the U.S. Department of
Energy (DOE) to accept and dispose of spent nuclear fuel and high level waste.

Scope of Work/Design Information/Technical Tasks/Assumptions:

1. Develop an ISFSI expansion design and construct in the current location of the North Industrial Area:
   a. Confirm existing Pad #2 will support the installation of 26 NUHOMs 32PTH-2 modules.
   b. Develop the ISFSI Pad expansion design to include additional area to support Contractor supplied
      storage modules for the remaining fuel assemblies and radiological waste within the spent fuel
      pools and up to 10 filled GTCC canisters generated from segmentation of Units 2 and 3 reactors
   c. Include in the ISFSI pad design all engineering including foundation design, access ways, security
      modifications and upgrades, and support buildings.
      i. New ISFSI support buildings and security upgrades should address the latest NRC
      required security features that are expected to change in 2014 or 2015.
      ii. Design to include temperature monitoring systems and lightning protection.
      iii. Design to include interaction between new pad and existing pad during construction, and
      post construction.
      iv. Provide options to preserve railroad spur into North Industrial Area for D&D activities.
   d. Prepare and coordinate with SCE permit submission including but not limited to NRC, California
      Coastal Commission (CCC), San Diego Air Pollution Control District (SDAPCD), etc.
      i. Support will encompass updating any previously performed studies or performing new
      studies requested by government agencies.
      ii. Contractor will need to identify all permits required for the expansion.
iii. Contractor will be responsible for communicating to SCE all expected review times by local, state, and federal organizations. Contractor will provide recommended submission dates for permits by SCE to ensure schedule is maintained. As an example, the permit for the ISFSI diesel generator could take as much as 15 months for review and approval by the SDAPCD. Contractor will need to determine appropriate submission date for the diesel air permit to ensure the equipment is operable to support the expansion completion date.

e. Incorporate permit review time into the overall project schedule. For instance, review by the CCC is expected to take approximately 12 months to complete before issuance of permit. Final design is not required before submission for permit, but exterior design of buildings and modules cannot change once permit has been submitted. SCE will utilize corporate resources to engage the CCC and will submit the permit for review and approval. Contractor will be responsible for supporting this activity by providing drawings and designs and subject matter expert input as needed. Construction cannot begin until the permit has been issued.

i. Contractor will be responsible for any potential new document or study updates that may be required for the CCC permit. This includes, but not limited to:
   1. Refresh the slope stability analysis using current seismic data.
   2. Refresh the ground acceleration effects upon modules analysis using current seismic data/assumptions.
   3. Refresh the tsunami effects analysis using current seismic data/assumptions.
   4. Initiate new analysis of projected sea level rise effects upon the existing and expanded ISFSI.
   5. Address any additional updates or documents requested by the CCC.

f. Perform any necessary geological investigations (e.g. soil boring samples) and update the Soil Structure Interaction (SSI) Analysis if required by the ISFSI expansion.

g. Perform any soil remediation required and performing surveys of the soil prior to release/shipment off-site.

h. Ensure final design meets the seismic requirements designated for Canisters and Modules (Reference SO23-207-40 latest revision section 3.6.4).

i. Ensure final design meets site dose requirements for the ISFSI.
   i. Develop and issue Engineering Design Change Packages (NECP) associated with expansion of the ISFSI in accordance with SCE Site Procedure SO123-XXIV-10.1 and referenced procedures.

2. Provide canisters and modules for all remaining spent fuel and/or radiological waste located within the spent fuel pool that is not loaded into the 24PT4 or 32PTH2 canisters

   a. Design and construct all Systems, Structures, and Components (SSC) to meet all design criteria and all commitments applicable to the existing SONGS ISFSI and any additional bases that may be applicable at this time. In addition, the following requirements apply:
i. Submit conceptual, detailed, and final design bases developed by the Contractor for the new canisters and modules for SCE Owner's Review.

ii. Invite SCE key stakeholders to detail design meetings with respect to the seismic issues as well as all licensing meetings with the NRC.

iii. Ensure the final design meets or exceeds the seismic requirements for the existing ISFSI (Reference SO23-207-40 latest revision section 3.6.4) and be approved by the NRC through a general license or license amendment.

iv. Develop and issue Engineering Design Change Packages (NECP) for all work associated with loading and storage of canisters and modules in accordance with site procedure SO123-XXIV-10.1 and referenced procedures.

b. Include in the proposal:
   i. All transport costs for material to the site and off-loading of equipment to designated site storage space.
   ii. Local, State, Federal permits that may be required for any fabrication performed on-site.
   iii. Any analyses that will be required for the 10CFR72.212 evaluation for the installation and operation of the system.

c. Canisters to be licensed for use by SCE for Storage and Transportation.

3. **Provide 10 GTCC canisters and modules for material to be generated in segmentation of the reactors:**
   a. Provide canisters and modules as described in Section 2 above. Until activation study and characterization analysis is performed on the reactors and a segmentation plan is developed, the 10 GTCC canisters are considered an upper bounding number.

b. Ensure the additional canisters are considered in the ISFSI pad design in Section 1 above. Design of the ISFSI pad will need to account for up to 10 GTCC canisters.

4. **Perform Pool to Pad campaign for the following proposed scopes of work:**
   a. Load, close, and transport the twelve 24PT4 NUHOMs canisters currently on site with fuel from the spent fuel pool into existing modules located on pad #2 on the ISFSI in accordance with existing site procedures and commitments. Existing on-site equipment may be utilized by the Contractor to perform this activity if desired. Maintenance of any on-site equipment needed for this work is the responsibility of the Contractor. Contractor is responsible for providing any equipment not available on site or any other equipment that might be needed. Note that closure welding of the 24PT4 canisters will require an ASME N-stamp to perform based on current SCE commitments.

b. Load, close, and transport twenty six 32PTH2 NUHOMs canisters currently being manufactured with fuel from the spent fuel pool to the ISFSI facility in accordance with existing site procedures and commitments. Existing on-site equipment may be utilized by the Contractor to perform this activity if desired. Maintenance of any on-site equipment needed for this work is the responsibility of the Contractor. Contractor is responsible for providing any equipment not available on site or any other equipment that might be needed.
c. Load, close, and transport all remaining Contractor supplied canisters to the ISFSI modules to complete off-loading of all fuel, radiological waste, CEA's, and any other material located in the spent fuel pool to the ISFSI facility. Contractor is responsible for providing all support and maintaining all equipment required for this scope of work.

d. Develop the optimum loading campaign schedule for the various canisters involved.

e. Perform any required NRC demonstration runs for loading of the 32PTH2 canisters and the Contractor supplied canisters.

f. Perform pre-operational inspections and testing of the spent fuel handling machine and fuel handling/insert tools (to be performed every 2 years) per SO23-I-3.19 and SO23-I-3.48 (or other Site Procedures).

g. Close and transport GTCC canisters to the ISFSI modules. Existing on-site equipment may be utilized by the Contractor to perform this activity if desired. Maintenance of any on-site equipment needed for this work is the responsibility of the Contractor. Contractor is responsible for providing any equipment not available on site or any other equipment that might be needed and any 10CFR72.212 updates necessary to support the loading of the GTCC material on the ISFSI pad. Note the vendor responsible for segmentation of the reactors will be responsible for loading the GTCC canisters.

5. Receive, offload, and assemble twenty six 32PTH2 NUHOMS modules on pad #2 of the ISFSI:

   a. First 8 modules are scheduled to arrive in July 2014 with additional deliveries to be scheduled. Arrival of the equipment (all 26 NUHOMS modules) will be in 3 separate deliveries over 2014 through 2016.

   b. Assembly activities include installation of equipment such as temperature monitoring equipment to be provided with NUHOMS models and electrical grounding of modules.

6. Prepare, submit, and obtain NRC approval for any license amendments required to support the scopes of work in this RFP.

7. Perform fuel inspections (4 face full inspection) prior to loading campaign. Prior to placement in dry storage, the candidate fuel assemblies are to be visually examined to ensure that no known or suspected gross cladding breaches exist for assemblies considered to be intact.

   a. Contractor will be responsible to disposition any findings from the fuel inspection and work with SONGS personnel to develop a plan for addressing those as-found conditions. Contractor will be responsible for executing any plans developed.

   b. Contractor will be responsible for removing SFP dampers located around the edge of the pool to access fuel in that area. Contractor will be required to build scaffold, insert cover, remove damper, then remove scaffold prior to removing fuel from that area. Only 2 dampers can be closed at one time so Contractor will have to reinstall dampers after fuel has been removed below and repositioned in the pools. See figure 1 below. Also see SONGS procedure SO23-I-3.53 Rev. 0 for details.
c. Note for any fuel movement to occur, the defueled technical specifications will need to be approved by the NRC. The forecast date for this approval and implementation is 3/31/15. Therefore, no fuel can be moved until after this date.

![Figure 1: Spent fuel pool dampers that must be removed](image)

8. Develop canister loading plans for all fuel and radiological waste located in the spent fuel pool including material located in the trash cans, CEA’s and any other material located within the fuel racks:
   a. Perform Activation analysis and characterization of all trash, CEA’s, and other materials within the spent fuel pool as needed to support loading into canisters. This requires removing trash can lids to validate records match actual contents.
   b. Develop plan for loading of CEA’s which includes any processing, if required, to support storage inside canisters.
   c. Repair any damaged trash cans.
   d. Develop the canister loading plan to incorporate known or anticipated requirements for transportation (e.g. criticality), with the objective of precluding the expense of repackaging fuel for transportation.
   e. Update the 10CFR72.212 analysis to cover the loading of all fuel and non-fuel material per the Certificate of Compliance. The 10CFR72.212 may require an additional update at the completion of the loading campaign to cover any additional non-fuel waste that was not identified, but loaded during the pool to pad campaign.
   f. Repair the damaged SFP cell in the U3 SFP prior to removing fuel assembly. This may require removing 8 surrounding fuel assemblies prior to repair. See figure 2.
9. Perform maintenance of cranes needed for off-loading of fuel from the spent fuel pool and storage on the ISFSI pad. This includes the SFP fuel handling machine and the cask handling cranes.
   a. Note that Koncrane is the current Contractor utilized by SCE; however, contractor may select a sub-vendor of their choice. Include costs for any recommended upgrades to the system to ensure reliability while in operation during the extensive pool to pad campaign required to off-load the pool.

10. Provide license for 10CFR 71 Transportation of canisters furnished under this specification.
    a. Ensure that the loading plan adequately reflects requirements of both the storage license and the transportation license. Fuel considerations include:
       i. Damaged or failed fuel locations
       ii. High burn-up fuel (>45 GWd/Mtu)
       iii. Low burn-up fuel where criticality may be a problem with transport
       iv. Any additional requirements that will need to be addressed

11. Provide a technical discussion with the commercial proposal for the items above. Include an integrated schedule that details time lines for the activities discussed in this scope of work. It should include adequate review times by the CCC for ISFSI expansion permit and review of license amendment requests from the NRC. The schedule should focus on the earliest time possible to have all fuel out of the spent fuel pools and on the ISFSI pad. This means off-loading SFP’s in parallel is an option provided all necessary support equipment is available.
12. Perform all Engineering in accordance with an SCE Approved Quality Assurance Program. Documents to be prepared, verified, and approved by the Contractor and submitted to SCE for Owner Acceptance. Contractor to provide On-Site personnel as needed to obtain inputs, and coordinate work.

13. Perform all Construction activities in accordance with Contractor’s own processes, procedures, and programs as approved by SCE.

14. Provide all necessary radiation protection (RP) resources to support the scopes of work described above. SCE RP resources will only provide oversight of the Contractor supplied RP resources.
   a. During pool to pad activities, it is expected the Contractor will provide a minimum of 4 qualified RP personnel per shift to support work in each unit. If work in both units is performed in parallel, then a minimum total of 8 RP personnel per shift would be required.
   b. SONGS will provide the RP monitoring equipment to be used by Contractor’s RP personnel.

15. Within 30 days of request from SCE, the Contractor will be responsible for providing an engineering specification for the scope of work described above for SCE review and approval.

16. Contractor will provide cooperation and assistance for the anticipated damages recovery efforts against DOE, at no additional costs or expense to SCE.
   a. Contractor will record and document incurred costs, including but not limited to employee and labor costs, for individual sub-projects, tasks, or other efforts as directed by SCE, and in a form approved by SCE.
   b. Contractor will make project personnel reasonably available for consultation, testimony, or other assistance in connection with the claims process, at Contractor’s cost and expense.
   c. Contractor will make available, at Contractors cost and expense, records or materials that SCE determines in its sole discretion to be necessary in connection with the claims process.
   d. Contractor will retain records and documentation relating to the Work as directed by SCE.
   e. Contractor will cooperate with SCE and its counsel to maintain all applicable legal privileges and protections.

Deliverables:
1. Proposal for the scope of work described above to include both commercial terms and a level 3 schedule of activities.
2. Commercial terms should be provided in the following categories:
   a) ISFSI Design and Expansion including all security modifications required. This includes all supporting activities such as permit submissions, geological investigations and study updates,
   b) Cost for all canisters and modules required. Includes cost for assembly of all modules and canisters (NUHOMS included) on the ISFSI pad, transfer casks, failed fuel canisters, GTCC
canisters, rad waste canisters, transportation to the site, off-loading of deliveries, and any support equipment required such as automated welding machines, transfer equipment, and vacuum drying equipment. Include cost associated with any license amendments required including transportation amendments.

c) Pool to pad services which includes loading, closing, and transport of fuel to ISFSI pad, closing and transport of GTCC canisters, fuel and trash can inspections, rad waste processing, maintenance of equipment, and RP support.

d) Other, covering any additional costs not discussed in the above 3 categories.

3. Recommended annual cash flow for commercial terms described in item #2 above.

4. Recommended changes to attached terms and conditions.

**Estimated Price:**
The contract will be fixed price. Contractor shall be responsible for all costs associated with delay, disruption, or interruption of the Work.
A. SONGS Quality Assurance (QA) Program Requirements:

**NOTE**
Work shall be performed in accordance with the QA program requirements specified in the contract and station procedures.

1. Safety Classification:

<table>
<thead>
<tr>
<th>Component</th>
<th>SONGS Quality Class</th>
<th>Seismic Category</th>
<th>Important to Safety</th>
<th>ASME Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canister*</td>
<td>I</td>
<td>I</td>
<td>Yes</td>
<td>B&amp;PV Code Section III, Division 1</td>
</tr>
<tr>
<td>Transfer Cask</td>
<td>II</td>
<td>N/A</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Storage Module (overpack)</td>
<td>II</td>
<td>I</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Transportation Cask</td>
<td>II</td>
<td>N/A</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Cask Lifting</td>
<td>II</td>
<td>N/A</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Yoke/Rigging</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport Trailer/Skid</td>
<td>IV</td>
<td>N/A</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Vacuum Drying Equipment</td>
<td>IV</td>
<td>N/A</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Automatic Welding System</td>
<td>IV</td>
<td>N/A</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>ISFSI Pad**</td>
<td>To be established by vendor</td>
<td>To be established by vendor</td>
<td>To be established by vendor</td>
<td></td>
</tr>
</tbody>
</table>

*Note: The canister will be required to be constructed to ASME code, but will not be code stamped.

**Note: ISFSI pad will be designed and built to quality class II or as established by the vendor.

The following definitions are from the SONGS UFSAR:

**Quality Class I**

Those structures, components, and systems that prevent the consequence of postulated accidents that could cause undue risk to the health and safety of the public. Specifically, these are structures, components, and systems that comprise, support, or are mechanically connected to the reactor coolant system pressure boundary (RCPB). Electrical systems which perform a safety related function (i.e. Class 1E) are included in the Quality Class II quality classification.
Quality Class II

Those structures, components, and systems not in Quality Class I, that are provided to mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public.

Quality Class III

Those structures, components, and systems not in Quality Class I or II, whose limited damage could interrupt power generation or release radioactive materials to the environment in excess of normal average release limits, but no in excess of licensed release rates.

Quality Class IV

Those structures, components, and systems not in Quality Classes I, II, or III, whose failure could inconvenience normal plant operation.

Important to Safety is defined as:

Structures, Systems, and Components (SSCs) features whose function satisfy one or more of the three criteria designated in 10CFR72.3. SSCs Important to Safety shall be designed to accommodate the effects of site characteristics and environmental conditions associated with normal operation, maintenance, testing, and postulated accidents.

Note: Important to Safety at SONGS is defined as Quality Class I and II for this project.

Seismic Category I

Those structures, components, and systems designed to remain functional if a design basis earthquake (DBE) occurs. These plant features are those necessary to ensure: (1) the integrity of the reactor coolant pressure boundary, (2) the capability to shut down the reactor and maintain it in a safe shutdown condition, or (3) the capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures comparable to the guideline exposures of 10CFR100.

Seismic Category II

Those structures, components, and systems that are not Seismic Category I but whose limited damage could interrupt generation of power.

2. QA Program Applicable To Project:
B. **Special Quality Requirements:**

If yes, specify:

Contractor to review commitments made to Federal, State, and / or Local agencies and ensure compliance of work with SCE.

Contractor will need to have and implement a Quality Assurance Program meeting the requirements of 10CFR50 Appendix B.

1. **Software Quality Requirements:**

   Yes [X]  

   No [ ]

   If yes, specify:  

   PC [ ]  

   Mainframe [ ]  

   Process [X]

   (Software design verification and validation requirements to be in accordance with Contractor’s QA program and are subject to review by regulatory agencies and SCE).

C. **Conceptual Review:**

Yes [XX]  

No [ ]

D. **SONGS Standards/Specifications**

Existing Licensing and Design commitments, existing design procedures (note that SCE is currently streamlining design procedures. Input to that program is welcome)

Additional References:

E. **Implementation Review:**

Yes [XX]  

No [ ]

F. **Design Integration Review:**

Yes [XX]  

No [ ]

G. **Additional Witness and Hold Points:**

Yes [XX]  

No [ ]

Witness points to be established as part of specification upon contract award.
H. **Scheduler Requirements:**

A. Following award of contract, the Contractor shall submit for Edison’s approval a detailed resource loaded level 3 schedule in Primavera P6 identifying all of the Contractor’s and its subcontractor’s activities required to perform the work in accordance with the scope of work. The schedule should also identify any support coordination or interfaces that are required to support the work to allow for sufficient Edison planning time. For example, this will include interface required with operations, health physics and radiation support for the opening of systems, clearances required for soil penetration, etc. The schedule level of detail shall be sufficient to allow Edison to monitor the progress of the work in accordance with the scope of work.

B. The schedule will be developed using Primavera P6, Release 7.0, SP5 and will be formatted to seamlessly integrate with the current SONGS master schedule. Upon contract award, SONGS Project Controls will provide the Contractor with a schedule process/program document defining codes, calendars, resources, numbering scheme, planning units, overall structure requirements, update frequency and requirements and any schedule criteria and/or requirements. Any changes, revisions, additions, deletions, or enhancements from this initial process/program document must be approved by SONGS Project Controls management prior to implementation.

C. The Contractor is to provide daily updates on any exceptions to the schedule throughout the project and inform Edison of any schedule exceptions/deviations as they occur. Areas that are behind schedule that put a major milestone or deliverable at risk should have a recovery plan developed.

D. Any deviation from the agreed upon schedule should be communicated to the Edison Project Manager.

I. **Standard Instructions:**

A. Review and Approval:

1. Edison shall review and approve all technical documents generated by the Supplier and its Subcontractors related to the Scope of Work. All documents shall be checked for accuracy and quality, and approved prior to submission to Edison. It shall be Supplier’s responsibility to schedule document submittals such as to support the Work schedule. Documents for Edison’s review can be submitted as electronic (*.pdf) files.

2. Drawings submitted for review shall be in Adobe Acrobat (*.pdf) format and AutoCAD; documents other than drawings shall be submitted as MSWord (*.doc or *.docx) files and Adobe Acrobat (*.pdf) files, utilizing the current version of the software.
3. Edison reserves the right to have an independent Third Party technical review of documents. Documents subject to independent Third Party review will either be completed within 21-days of receipt from the Supplier, or to a date as agreed to by Edison and the Supplier.

4. Documents not meeting the quality requirements specified herein will not be reviewed and will be returned to the Supplier for correction. After they are corrected, the Supplier shall resubmit such documents for Edison’s review. The need for such re-submittal shall not be the basis for requesting schedule extensions or price increases.

5. Documents submitted by the Supplier will be processed by Edison within twenty-one (21) calendar days after receipt, or as agreed to by Edison and the Supplier. The review status will be noted on the return transmittal, and Edison comments will be returned on Edison’s standard comment form (SCE Form 26-422-1). The returned documents will be marked with one of the following:

   STATUS 1 - APPROVED
   STATUS 2 - APPROVED EXCEPT AS NOTED – Make changes and resubmit
   STATUS 3 - NOT APPROVED – Correct and resubmit for review

The Supplier shall incorporate changes, as required by comments on the documents, and shall provide brief descriptions on the form how each Edison’s comment was resolved. Corrected documents shall be resubmitted to Edison for review, as specified on the document transmittal form. All revisions shall be clearly indicated on the document and the Document Transmittal List shall be updated accordingly.

Assignments of Status 1 or 2 to the documents by Edison shall not relieve the Supplier of any part of its obligation to meet all of the requirements of the Purchase Order and this Scope of Work, or of its responsibility for the correctness of such documents.

Generally, the documents approved by Edison (assigned Status 1 or 2) shall not be changed for any reasons other than comment incorporation (for Status 2). Should a change to a previously approved document be necessary, the Supplier shall resubmit such documents for Edison’s approval after the changes are made.
B. Final Submittal Format:

1. Each final document shall be submitted in the following formats and quantities:
   
   • Electronic file(s) on CD(s) or transmitted by e-mail and
   
   • Three (3) hard copies.

2. The print must be of a quality that is acceptable for microfilming by Edison. Any drawings or
documents submitted that are not acceptable for microfilming will be rejected, or at Edison’s
option and Supplier’s expense, upgraded by drafting or other techniques to permit microfilming.

3. Drawings shall be submitted in both hardcopy and electronic format. Electronic format
acceptable to SCE include AutoCAD and any other compatible with MOSAICS.

4. Electronic submittal of non-drawing documents shall be provided in the current version of the
Adobe Acrobat (*.pdf) file format.

5. As required by SCE, civil engineering documents shall be approved and stamped by a
professional civil engineer, licensed to practice civil engineering in the state of California.

C. Documentation

1. Supplier shall submit all required documentation in electronic form for engineering review and
approval as previously stated in Section I.A, and as further described below when not specifically
addressed.

2. All design documents shall have supervisory review and approval by Supplier in accordance with
their quality assurance program.

3. All design documents shall be reviewed and approved by DIA (Decommissioning Initial Activities)
prior to transmittal in final form.

D. Drawings (as applicable)

1. Outline dimension drawings shall include the size and location of all components, internal
connections, bill of materials and materials of construction and all information needed to locate
and mount the equipment.
2. Assembly drawings shall be of sufficient detail to permit component identification and replacement.

3. Initial and final certified copies of outline and assembly drawings shall be submitted.

4. Wiring Diagrams shall include schematic and interconnection diagrams, with sufficient detail to troubleshoot and trace signals.

5. Wiring Diagrams shall include schematic and interconnection diagrams, with sufficient detail to troubleshoot and trace signals.

J. **Contractor Procedure:**

   Yes [X ]
   No []

   Upon award of contract, Contractor will provide procedures for performance or work identified within project scope.

K. **Contractor Understanding:**

   Yes [X ]
   No []

   Contractor to provide proposal demonstrating understanding of project scope.

L. **Human Performance Requirements**

   Yes [X ]
   No []

   Contractor shall use human error prevention tools (similar to those in INPO 05-002) to ensure the final deliverable is of the highest quality and free of any significant errors.

   As a minimum, the following shall be implemented:

   • To minimize error engineering human performance tools shall be used during the implementation of this scope of work. Prior to the commencement of the job “Human Performance Risk Factors” shall be identified and compensating actions put in place and tracked to reduce or eliminate the risk of making errors.

M. **Other Instructions:**

   Yes [ ]
   No [X ]

   Specify:

N. **Cost Controls:**

1. Changes involving increased cost or a change in scope shall be approved in writing by SONGS prior to work commencement.
2. Contractor will record and document incurred costs, including employee and labor costs, for individual sub-projects, tasks, or other efforts as directed by SCE, and in a form approved by SCE.

3. Contractor shall have cost controls for progress monitoring for this task authorization. SCE shall be notified when the cost exceeds 50%, 75% and 90% of allocated funding, and contractor shall not exceed the allocated funding without prior written approval.

4. Contractor shall perform the above work scope on a Fixed price basis.

5. Travel, Living and expenses at cost with no markup.

6. Cash flow and recommended schedule of payment to be submitted to SONGS. Yes [X]  No []

O. SONGS Contacts:

1. Project Manager/Technical Representative
   Name: Robert Munger
   Phone: 949-368-6135
   e-mail: George.Munger.Jr@sce.com

2. Engineering Representative
   Name: Jose Donis
   Phone: 
   e-mail: Jose.Donis@sce.com

3. Engineering Representative
   Name: Michael Moran
   Phone: 949-368-7993
   e-mail: Michael.Moran@sce.com

4. Procurement Representative
   Name: TBD

5. Authorized Edison Representative
   Name: Rico Rodriguez
   Phone: 949-368-7598
   e-mail: Rico.Rodriguez@sce.com

   ** Note that the SONGS Contractual Contact (agent) is listed on the Purchase Order.

P. Additional Correspondence Distributions:  Yes [ ]  No [X]

   Specify:

Q. Legal Review Performed:  Yes [XX]  No []

   Esther Park
### R. APPROVALS (Signatures/Date):

<table>
<thead>
<tr>
<th>PREPARED BY</th>
<th>DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Munger</td>
<td>1/29/14</td>
</tr>
<tr>
<td>REVIEWED BY</td>
<td></td>
</tr>
<tr>
<td>Jose Donis</td>
<td>1/29/14</td>
</tr>
<tr>
<td>APPROVED BY</td>
<td></td>
</tr>
<tr>
<td>Dennis Evans</td>
<td>1/29/14</td>
</tr>
<tr>
<td>APPROVED BY</td>
<td></td>
</tr>
<tr>
<td>Mark Dubois</td>
<td>1/29/14</td>
</tr>
<tr>
<td>APPROVED BY</td>
<td></td>
</tr>
<tr>
<td>Mike Shepard</td>
<td>1/30-14</td>
</tr>
<tr>
<td>APPROVED BY</td>
<td></td>
</tr>
<tr>
<td>David Wood</td>
<td>1/29/14</td>
</tr>
<tr>
<td>APPROVED BY</td>
<td></td>
</tr>
<tr>
<td>Mike Moran</td>
<td>1/30/14</td>
</tr>
<tr>
<td>PROJECT DIRECTOR</td>
<td></td>
</tr>
<tr>
<td>Ed Avella</td>
<td>2-3-14</td>
</tr>
</tbody>
</table>