Question 40.a:

Originator: Barbara George

Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(a) Please list the different types of “in-core” fuel assemblies that are currently on site at SONGS.

Response to Question 40.a:

16x16 Pressurized Water Reactor (PWR) fuel
Question 40.b:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel

Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(b) For each type of in-core fuel assembly in the fuel pools, please state the length of time before it can be moved to dry cask?

Response to Question 40.b:

SCE objects to the data request as vague and ambiguous, and lacking foundation. Subject to and without waiving those objections, SCE responds as follows: Typical cooling time takes, at minimum, 5 years depending upon initial enrichment, burnup, and target heat-load of each assembly.
To: WEM
Prepared by: Steve Lelewew
Title: Nuclear Fuels Procurement Manager
Dated: 08/23/2013

Question 40.c:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
   Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(c) How many of the in-core fuel assemblies currently stored at SONGS contain high burn up fuel?

Response to Question 40.c:

SCE objects to the data request as vague and ambiguous as to what “high burn up fuel” means.

Subject to and without waiving those objections, SCE responds as follows:

Using NRC ISG-11 definition of high burnup, 0 fuel assemblies have average assembly burnup exceeding 45 GWd/MTU.
Question 40.d:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(d) For each and every fuel assembly which contains high burn up fuel please state whether it is currently stored in the fuel pool or dry cask storage.

Response to Question 40.d:

SCE objects to the data request as vague and ambiguous as to what "each and every fuel assembly" and “high burn up fuel” means.

Subject to and without waiving those objections, SCE responds as follows:

Using NRC ISG-11 definition of high burnup, average assembly burnups exceeding 45 GWd/MTU:

8 fuel assemblies exceeding 45 GWd/MTU are stored in dry cask storage
570 fuel assemblies exceeding 45 GWd/MTU are stored in the U2 Spent Fuel Pool
545 fuel assemblies exceeding 45 GWd/MTU are stored in the U3 Spent Fuel Pool
Question 40.e:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel

Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(e) If any fuel assembly which contains high burn up fuel is currently stored in dry cask storage, please state the date the fuel assembly was:
   (i) placed into the fuel pool;
   (ii) the date(s) it was removed from the fuel pool;
   (iii) if it has been entered into dry cask, state the date it entered into dry cask storage; and
   (iv) state whether it was relocated at any point in time after initially being placed in dry cask storage.

Response to Question 40.e:

SCE objects to the data request as vague and ambiguous as to what “high burn up fuel” means. SCE also objects to the request on the ground that it seeks information that is beyond the scope of issues in this OII.

Subject to and without waiving those objections, SCE responds as follows:

   (i)
   1 high burnup fuel assembly placed in the spent fuel pool 8/17/1991
   2 high burnup fuel assemblies placed in the spent fuel pool 7/22/1995
   5 high burnup fuel assemblies placed in the spent fuel pool 1/2/2001

   (ii)
   5 high burnup fuel assemblies moved to dry storage 6/30/12
   2 high burnup fuel assemblies moved to dry storage 4/7/2008
   1 high burnup fuel assembly moved to dry storage 2/28/2007
(iii) The same dates as item (ii)

(iv) Any fuel assembly which contains high burn up fuel was not relocated at any point in time after initially being placed in dry cask storage.
Question 40.f:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(f) Do the fuel assemblies which contain high burn up fuel have different storage requirements than the fuel assemblies which do not contain high burn-up fuel?

Response to Question 40.f:

SCE objects to the data request as vague and ambiguous as to what “high burn up fuel” means, and lacking foundation.

Subject to and without waiving those objections, SCE responds as follows:

Using NRC ISG-11 definition of high burnup, the fuel assemblies which contain burnups exceeding 45 GWd/MTU do not have different storage requirements than the fuel assemblies which do not contain high burn up fuel. High burn up fuel itself does not dictate the storage requirement. Cooling time and storage requirements are dependent upon initial enrichment, the amount of burnup, and target heat-load.
Question 40.g:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(g) If the answer to the preceding question is yes, please describe the different requirements.

Response to Question 40.g:

SCE objects to the data request as vague and ambiguous as to what “high burn up fuel” means, and lacking foundation.

Subject to and without waiving those objections, SCE responds as follows:

The answer to the preceding question is no.
Question 40.h:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(h) Please state the amount of time that fuel assemblies which contain high burn up fuel need to remain cooling in the fuel pools before transfer to dry cask storage. Please cite the authority for this information.

Response to Question 40.h:

SCE objects to the data request as vague and ambiguous as to what “high burn up fuel” means. SCE also objects to the request on the ground that it seeks information that is beyond the scope of issues in this OII.

Subject to and without waiving those objections, SCE responds as follows:

Typical cooling times are 5 to 12 years depending on initial enrichment, burnup, and target heat-load. The reference for this information is SO1-207-1-M210, Appendix A to Certificate of Compliance NO. 1029, Technical Specifications for the Advanced NUHOMS System.
DATA REQUEST SET WEM-SCE-007

To: WEM
Prepared by: Steve Lelewer
Title: Nuclear Fuels Procurement Manager
Dated: 08/23/2013

Question 40.i:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(i) Has SCE communicated with any vendors regarding the purchase of new types of dry cask storage specifically needed for the in-core fuel assemblies onsite which contain high burn up fuel? Are such casks available and what is the price difference?

Response to Question 40.i:

SCE objects to the data request as vague and ambiguous as to what “high burn up fuel” means. No, SCE has not communicated with any vendors regarding the purchase of new types of dry cask storage specifically needed for the in-core fuel assemblies onsite which contain high burn up fuel. The Transnuclear-designed dry storage canisters used by SONGS have the capability to store all burnup 16x16 PWR fuel.
Question 40.j:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(j) Will the dry cask storage facility at SONGS need to be enlarged to accommodate the fuel assemblies removed from Units 2 and 3?

Response to Question 40.j:

SCE also objects to the request on the ground that it seeks information that is beyond the scope of issues in this OII.

Subject to and without waiving this objection, SCE responds as follows:

Yes.
Question 40.k:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(k) Will the dry cask storage facility at SONGS need to be redesigned to accommodate fuel assemblies containing high burn up fuel?

Response to Question 40.k:

SCE objects to the data request as vague and ambiguous as to what “high burn up fuel” means. SCE also objects to the request on the ground that it seeks information that is beyond the scope of issues in this OII.

Subject to and without waiving those objections, SCE responds as follows:

No, the dry cask storage facility at SONGS will not need to be redesigned to accommodate fuel assemblies containing high burn up fuel.
Question 40.1:

Originator: Barbara George

Request 40 – In-Core Nuclear Fuel
Reference: SCE-40, p.11:30-31: “... in-core fuel is at the SONGS site and was at one point in the reactor.”

(l) When does SCE anticipate moving the fuel from the pools to the casks? (Please give start and end dates and a schedule for how many assemblies will be moved throughout this period.)

Response to Question 40.1:

SCE objects to the request on the ground that it is premature.
Question 41.a:

Originator: Barbara George

Request 41—Pre-Core Nuclear Fuel
Reference: SCE-40, p. 11:29-31: “SCE’s nuclear fuel inventory includes both “pre-core” and “in-core” fuel. The pre-core fuel is at various stages in the supply chain prior to being loaded into the reactor ... SCE has notified suppliers to terminate contracts and minimize costs to the extent the contracts permit. SCE will attempt to sell fuel whenever it is appropriate to the extent allowed under the terms of SCE’s contracts.

(a) Please identify all suppliers with whom SCE has outstanding contracts for pre-core fuel and what stage in the fuel cycle these represent.

Response to Question 41.a:

Please see Appendix 1 to Testimony of SCE Exhibits SCE-2 and SCE-3 at Tab 14 and Exhibit SCE-11 SCE’s Phase 1 Errata at Attachment C.
Question 41.b:

Originator: Barbara George

Request 41–Pre-Core Nuclear Fuel

Reference: SCE-40, p. 11:29-31: “SCE’s nuclear fuel inventory includes both “pre-core” and “in-core” fuel. The pre-core fuel is at various stages in the supply chain prior to being loaded into the reactor ... . SCE has notified suppliers to terminate contracts and minimize costs to the extent the contracts permit. SCE will attempt to sell fuel whenever it is appropriate to the extent allowed under the terms of SCE’s contracts.

(b) Please identify the amounts of pre-core fuel on order at each stage of the fuel cycle.

Response to Question 41.b:

SCE objects to the data request as vague and ambiguous as to what “on order” means. SCE also objects to this data request on the ground that it is premature, and seeks information that is confidential, irrelevant and unnecessary, and is therefore unduly burdensome. SCE also objects to the extent the request seeks information protected by the attorney-client privilege or attorney work-product doctrine.
Question 41.c:

Originator: Barbara George

Request 41–Pre-Core Nuclear Fuel

Reference: SCE-40, p. 11:29-31: “SCE’s nuclear fuel inventory includes both “pre-core” and “in-core” fuel. The pre-core fuel is at various stages in the supply chain prior to being loaded into the reactor ... SCE has notified suppliers to terminate contracts and minimize costs to the extent the contracts permit. SCE will attempt to sell fuel whenever it is appropriate to the extent allowed under the terms of SCE’s contracts.

(c) Please state the total cost for each outstanding contract SCE has for pre-core fuel.

Response to Question 41.c:

SCE objects to the data request as vague and ambiguous as to what “total cost” means. SCE also objects to this data request on the ground that it is premature, and seeks information that is confidential, irrelevant and unnecessary, and is therefore unduly burdensome. SCE also objects to the extent the request seeks information protected by the attorney-client privilege or attorney work-product doctrine.
DATA REQUEST SET WEM-SCE-007

To: WEM
Prepared by: Amanda Klopf
Title: Attorney
Dated: 08/23/2013

Question 41.d:

Originator: Barbara George

Request 41–Pre-Core Nuclear Fuel
Reference: SCE-40, p. 11:29-31: “SCE’s nuclear fuel inventory includes both “pre-core” and “in-core” fuel. The pre-core fuel is at various stages in the supply chain prior to being loaded into the reactor ... SCE has notified suppliers to terminate contracts and minimize costs to the extent the contracts permit. SCE will attempt to sell fuel whenever it is appropriate to the extent allowed under the terms of SCE’s contracts.

(d) Please identify all potential buyers of SCE’s pre-core fuel.

Response to Question 41.d:

SCE objects to the request to the extent it seeks information protected by the attorney client-privilege and attorney work-product doctrine. In addition, SCE objects to the request on the ground that it is premature.
Southern California Edison  
SONGS OII 1.12-10-013  

DATA REQUEST SET WEM-SCE-007  

To: WEM  
Prepared by: Steve Lelewer  
Title: Nuclear Fuels Procurement Manager  
Dated: 08/23/2013  

Question 42g:  

Originator: Barbara George  

Request 42 – In-Core Nuclear Fuel  
Reference: SCE-40, p. 12:3-6: “Although in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to the particular plant at which it is being used, SCE is consulting with various vendors and experts regarding potential innovations which would allow the company to prepare certain in-core inventory for sale.  

(g) Please describe in detail the “potential innovations which would allow SCE to prepare certain in-core inventory for sale.”  

Response to Question 42g:  

SCE objects to the request on the ground that it is premature. SCE also objects to this request on the grounds that it seeks information that is irrelevant.
Question 42.a:

Originator: Barbara George

Request 42 – In-Core Nuclear Fuel
Reference: SCE-40, p. 12:3-6: “Although in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to the particular plant at which it is being used, SCE is consulting with various vendors and experts regarding potential innovations which would allow the company to prepare certain in-core inventory for sale.

(a) Please identify the specific “in-core inventory” that SCE refers to above as “certain in-core inventory” which may be sold.

Response to Question 42.a:

Portions of the Unit 2, Cycle 17 reload batch are being assessed.
Question 42.b:

Originator: Barbara George

Request 42 – In-Core Nuclear Fuel

Reference: SCE-40, p. 12:3-6: “Although in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to the particular plant at which it is being used, SCE is consulting with various vendors and experts regarding potential innovations which would allow the company to prepare certain in-core inventory for sale.

(b) Please identify the “various vendors” SCE has consulted with regarding potential innovations which would allow SCE to prepare certain in-core inventory for sale.

Response to Question 42.b:

SCE objects to the request on the ground that it is premature.

SCE also objects to this request on the grounds that it seeks information that is irrelevant.

SCE has consulted with the SONGS’s fuel fabrication vendors Areva NP Inc. and Westinghouse Electric Company LLC.
Question 42.c:

Originator: Barbara George

Request 42 – In-Core Nuclear Fuel

Reference: SCE-40, p. 12:3-6: “Although in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to the particular plant at which it is being used, SCE is consulting with various vendors and experts regarding potential innovations which would allow the company to prepare certain in-core inventory for sale.

(c) Please identify the “experts” SCE has consulted with regarding potential innovations which would allow SCE to prepare certain in-core inventory for sale.

Response to Question 42.c:

SCE objects to the request on the ground that it is premature.

SCE also objects to this request on the grounds that it seeks information that is irrelevant.

SCE has consulted with the SONGS’s fuel fabrication vendors Areva NP Inc. and Westinghouse Electric Company LLC.
Question 42.d:

Originator: Barbara George

Request 42 – In-Core Nuclear Fuel
Reference: SCE-40, p. 12:3-6: “Although in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to the particular plant at which it is being used, SCE is consulting with various vendors and experts regarding potential innovations which would allow the company to prepare certain in-core inventory for sale.

(d) Has SCE consulted with any military entities regarding resale of “certain in-core inventory for sale?” If so, please identify.

Response to Question 42.d:

SCE objects to the request on the ground that it is premature and irrelevant. SCE also objects to the request to the extent it seeks information protected by the attorney client-privilege and attorney work-product doctrine.

Subject to and without waiving these objections, SCE responds as follows:

SCE has not consulted with any military entities regarding resale of certain in-core inventory.
Question 42.e:

Originator: Barbara George

Request 42 – In-Core Nuclear Fuel

Reference: SCE-40, p. 12:3-6: “Although in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to the particular plant at which it is being used, SCE is consulting with various vendors and experts regarding potential innovations which would allow the company to prepare certain in-core inventory for sale.

(e) Has SCE consulted with any entities in the medical industry regarding resale of “certain in-core inventory for sale?” If so, please identify.

Response to Question 42.e:

SCE objects to the request on the ground that it is premature and irrelevant. SCE also objects to the request to the extent it seeks information protected by the attorney client-privilege and attorney work-product doctrine.

Subject to and without waiving these objections, SCE responds as follows:

SCE has not consulted with any entities in the medical industry regarding resale of certain in-core inventory.
DATA REQUEST SET WEM-SCE-007

To: WEM
Prepared by: Amanda Klopf
Title: Attorney
Dated: 08/23/2013

Question 42.f:

Originator: Barbara George

Request 42 – In-Core Nuclear Fuel
Reference: SCE-40, p. 12:3-6: “Although in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to the particular plant at which it is being used, SCE is consulting with various vendors and experts regarding potential innovations which would allow the company to prepare certain in-core inventory for sale.

(f) Has SCE consulted with any foreign nationals regarding resale of “certain in-core inventory for sale?” If so, please identify.

Response to Question 42.f:

SCE objects to the request on the ground that it is premature and irrelevant. SCE also objects to the request to the extent it seeks information protected by the attorney-client privilege and attorney work-product doctrine.

Subject to and without waiving these objections, SCE responds as follows:

SCE has not consulted with any foreign nationals regarding resale of certain in-core inventory.
Question 42.h:

**Originator:** Barbara George

**Request 42 – In-Core Nuclear Fuel**
Reference: SCE-40, p. 12:3-6: “Although in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to the particular plant at which it is being used, SCE is consulting with various vendors and experts regarding potential innovations which would allow the company to prepare certain in-core inventory for sale.

(h) Please describe in detail the preparations SCE would need to undertake in order to “prepare certain in-core inventory for sale”.

**Response to Question 42.h:**

SCE objects to the request on the ground that it is premature. SCE also objects to this request on the grounds that it seeks information that is irrelevant.
Question 43.a:

Originator: Barbara George

Request 43 – Radioactive Assets

(a) For all physical assets left onsite at SONGS, please identify which physical assets are contaminated with radioactivity?

(b) For each physical asset identified above, please quantify the amount and type of radioactive contamination.

(c) Please list all assets currently onsite at SONGS which will need to be removed to a low-level nuclear waste storage facility.

Response to Question 43.a:

SCE objects to the question on the ground that it is vague, ambiguous, overbroad and unduly burdensome. In addition, SCE objects to the question as beyond the scope of issues to be considered in this OII. These issues are generally considered in the Nuclear Decommissioning Costs Triennial Proceeding (NDCTP).
Question 43.b:

**Originator:** Barbara George

Request 43 – Radioactive Assets

(b) For each physical asset identified above, please quantify the amount and type of radioactive contamination.

**Response to Question 43.b:**

Please see SCE's response to WEM-SCE-007, Question 43.a.
Question 43.c:

**Originator:** Barbara George

Request 43 – Radioactive Assets

(c) Please list all assets currently onsite at SONGS which will need to be removed to a low-level nuclear waste storage facility.

**Response to Question 43.c:**

Please see SCE’s response to WEM-SCE-007, Question 43.a.
Question 44.a:

Originator: Barbara George

Request 44 – $112 Million Received in Settlement from Federal Government

“Interim storage is necessary because the federal government failed to fulfill its contractual obligation to open a permanent nuclear spent fuel facility that would permit off-site storage of SONGS spent fuel. SCE, like other nuclear generator operators, has successfully sued the federal government for this failure. SCE has received $112 million as its share from the federal government, and has proposed to the CPUC that the bulk of this amount be refunded to customers.

(a) When did SCE receive the $112 million?

Response to Question 44.a:

SCE objects to the request on the ground that it is beyond the scope of issues being considered in this OII.

Subject to and without waiving this objection, SCE responds as follows:

The Commission has already addressed the issue regarding how SCE may seek approval regarding disposition of any damages award related to the DOE Spent Fuel Litigation. In Decision (D.) 10-07-049, the Commission determined that that the disposition of any damages award related to the DOE Spent Fuel Litigation may be addressed in the Energy Resource Recovery Account (ERRA) Review proceeding.

As directed by the Commission in D.10-07-049, SCE’s proposal regarding disposition of the damages award referenced in the question (which SCE received from the government in November, 2011) is presently before the Commission in SCE’s April 2, 2012 Application No. (A.) 12-04-001, ERRA Review of Operations, 2011. SCE and DRA entered into an uncontested Settlement Agreement that fully resolves all of the issues in A.12-04-001, including disposition
of the DOE Spent Fuel Litigation proceeds, and would allow the Commission, upon approval, to close A.12-04-001. On January 29, 2013, SCE and DRA submitted a motion seeking approval of that Settlement Agreement. That motion is pending and the Commission’s Administrative Law Judge for A.12-04-001 has not issued a proposed decision. SCE's share of the damages award is in a memorandum account earning interest.
Question 44.b:

Originator: Barbara George

Request 44 – $112 Million Received in Settlement from Federal Government

“Interim storage is necessary because the federal government failed to fulfill its contractual obligation to open a permanent nuclear spent fuel facility that would permit off-site storage of SONGS spent fuel. SCE, like other nuclear generator operators, has successfully sued the federal government for this failure. SCE has received $112 million as its share from the federal government, and has proposed to the CPUC that the bulk of this amount be refunded to customers.

(b) Please identify where the $112 million was invested, and what kind of interest it has been earning.

Response to Question 44.b:

Please see SCE’s response to WEM-SCE-007, Question 44.a.
Question 44.c:

Originator: Barbara George

Request 44 – $112 Million Received in Settlement from Federal Government

Reference: songscommunity.com August 22, 2013,
http://www.songscommunity.com/docs/DecommissioningSanOnofreComplete.pdf:
“Interim storage is necessary because the federal government failed to fulfill its contractual obligation to open a permanent nuclear spent fuel facility that would permit off-site storage of SONGS spent fuel. SCE, like other nuclear generator operators, has successfully sued the federal government for this failure. SCE has received $112 million as its share from the federal government, and has proposed to the CPUC that the bulk of this amount be refunded to customers.

(c) What is the current status of the $112 million received from the federal government

Response to Question 44.c:

Please see SCE’s response to WEM-SCE-007, Question 44.a.
Southern California Edison  
SONGS OII  1.12-10-013  

DATA REQUEST SET  WEM-SCE-007

To: WEM  
Prepared by: Walker Matthews  
Title: Senior Attorney  
Dated: 08/23/2013

Question 44.d:

Originator: Barbara George

Request 44 – $112 Million Received in Settlement from Federal Government

Reference: songscommunity.com August 22, 2013, 
“Interim storage is necessary because the federal government failed to fulfill its 
contractual obligation to open a permanent nuclear spent fuel facility that would permit 
off-site storage of SONGS spent fuel. SCE, like other nuclear generator operators, 
has successfully sued the federal government for this failure. SCE has received $112 
million as its share from the federal government, and has proposed to the CPUC 
that the bulk of this amount be refunded to customers.

(d) Please describe in detail SCE’s proposal to the CPUC that the bulk of this amount be 
refunded to customers.

Response to Question 44.d:

Please see SCE’s response to WEM-SCE-007, Question 44.a.
Originator: Barbara George

Request 44 – $112 Million Received in Settlement from Federal Government

Reference: songscommunity.com August 22, 2013,
“Interim storage is necessary because the federal government failed to fulfill its contractual obligation to open a permanent nuclear spent fuel facility that would permit off-site storage of SONGS spent fuel. SCE, like other nuclear generator operators, has successfully sued the federal government for this failure. SCE has received $112 million as its share from the federal government, and has proposed to the CPUC that the bulk of this amount be refunded to customers.

(e) Which proceeding(s) at the CPUC have jurisdiction over the disposition of the $112 million received from the federal government.

Response to Question 44.e:

Please see SCE’s response to WEM-SCE-007, Question 44.a.