Attachment A

Amended and Restated Settlement Agreement

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the Commission's Own Motion into the Rates, Operations, Practices, Services and Facilities of Southern California Edison Company and San Diego Gas & Electric Company Associated with the San Onofre Nuclear Generating Station Units 2 and 3.	Investigation 12-10-013 (Filed October 25, 2012)
And Related Matters.	Application 13-01-016 Application 13-03-005 Application 13-03-013 Application 13-03-014

SONGS OII AMENDED AND RESTATED SETTLEMENT AGREEMENT BETWEEN SOUTHERN CALIFORNIA EDISON COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY, THE OFFICE OF RATEPAYER ADVOCATES, THE UTILITY REFORM NETWORK, FRIENDS OF THE EARTH, AND THE COALITION OF CALIFORNIA UTILITY EMPLOYEES

Dated: September 23, 2014

SONGS OII AMENDED AND RESTATED SETTLEMENT AGREEMENT BETWEEN SOUTHERN CALIFORNIA EDISON COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY, THE OFFICE OF RATEPAYER ADVOCATES, THE UTILITY REFORM NETWORK, FRIENDS OF THE EARTH, AND THE COALITION OF CALIFORNIA UTILITY EMPLOYEES

Southern California Edison Company ("SCE"), San Diego Gas & Electric Company ("SDG&E"), the Office of Ratepayer Advocates ("ORA"), The Utility Reform Network ("TURN"), Friends of the Earth ("FOE"), and the Coalition of California Utility Employees ("CUE") (hereinafter collectively referred to as the "Settling Parties") agree to settle all claims, allegations, and liabilities in the *Order Instituting Investigation Regarding San Onofre Nuclear Generating Station Units 2 and 3*, I.12-10-013, and all proceedings that have been consolidated therewith (including A. 13-01-016, A. 13-03-005, A. 13-03-013, and A. 13-03-014) (the "OII"), on the following terms and conditions, which shall only become effective on the Effective Date (as defined below).

This amended and restated settlement agreement ("Agreement") is entered into as a compromise of disputed claims in order to minimize the time, expense, and uncertainty of further regulatory proceedings. ORA, TURN, FOE, and CUE agree to the following terms and conditions as a complete and final resolution of all claims against SCE and SDG&E in the OII, and SCE and SDG&E agree to these terms and conditions as a complete and final resolution of the OII. This Agreement constitutes the sole agreement between the Settling Parties concerning the subject matter of this Agreement.

As explained herein, the Settling Parties shall jointly submit this Agreement to the California Public Utilities Commission ("Commission" or "CPUC") for approval. If the Effective Date does not occur within 90 days following the date of submission to the Commission, the Agreement shall be subject to termination by any of the Settling Parties upon written notice to the other Settling Parties. This document amends and restates the original settlement agreement submitted to the Commission on April 3, 2014.

I.
THE PARTIES

1.1. The parties to this Agreement are SCE, SDG&E, TURN, ORA, FOE and CUE.

1.2. SCE is an investor owned public utility in the State of California and is subject to the jurisdiction of the Commission with respect to providing electric service to its customers.

1.3. SDG&E is an investor owned public utility in the State of California and is subject to the jurisdiction of the Commission with respect to providing electric service to its customers.

1.4. ORA is an independent division of the Commission whose statutory mission is to obtain the lowest possible rate for service consistent with reliable and safe service levels. In fulfilling this goal, ORA also advocates for customer and environmental protections.

1.5. TURN is an independent, non-profit consumer advocacy organization that represents the interests of residential and small commercial utility customers.

1.6. FOE is an advocacy organization whose mission is to protect the environment and promote the sustainable use of the planet's resources.

1.7. CUE is a coalition of unions whose members are employed at California electric utilities.

1.8. The following entities have filed motions seeking party status in the OII, but are not parties to this Agreement: Women's Energy Matters, the Alliance for Nuclear Responsibility, the Coalition to Decommission San Onofre, Ruth Henricks, the World Business Academy, the National Asian American Coalition, the Latino Business Chamber of Greater Los Angeles, the Ecumenical Center for Black Church Studies, the Chinese American Institute for Empowerment, the Nevada Hydro Company, Inc., City of Riverside, the Clean Coalition, the Western Power Trading Forum, the Direct Access Customer Coalition, the Alliance for Retail Energy Markets, Southern California Gas Company, Distributed Energy Consumer Advocates, the Utility Consumers' Action Network, the Independent Energy Producers Association, the California Cogeneration Council, Noble Americas Energy Solutions LLC, Amerinet, Inc., Public Agency Coalition, and the State of California.

II.
DEFINITIONS

2.1. **AFUDC:** Allowance for Funds Used During Construction.

2.2. **Agreement:** This document and any appendices.

2.3. **ALJ:** Administrative Law Judge.

2.4. **Authorized Cost of Debt:** The rate of return on debt authorized by the CPUC for a given utility from time to time. This rate of return may change during any of the amortization periods set forth in this Agreement.

2.5. **Authorized Cost of Preferred Stock:** The rate of return on preferred stock authorized by the CPUC for a given utility from time to time. This rate may change during any of the amortization periods set forth in this Agreement.

2.6. **Base Plant:** The Net Book Value of all SONGS-related capital investments, except the SGRP, in the Utilities' rate bases.

(a) Base Plant includes the Net Book Value for all SONGS-related marine mitigation investments that the Utilities made in response to the California Coastal Commission's directives to mitigate environmental impacts of SONGS, except the $22 million disallowed by the Commission in Decision No. 06-05-016.

(b) Base Plant includes the Net Book Value for all SONGS-related NDBD&DD investments.

(c) Base Plant does not include an adjustment for cash working capital.

(d) Base Plant does not include the M&S Investment.

(e) Base Plant does not include the Nuclear Fuel Investment.

2.7. **BRRBA:** The generation sub-account of the Base Revenue Requirement Balancing Account, or its successor account.

2.8. **Original Cost:** The initial outlay for an investment, equal to the gross sum of all recorded direct and indirect expenditures associated with the capital investment.

2.9. **Capital-Related Revenue Requirement:** The total amount of revenue required by a utility to recover its capital investments and associated income and property taxes (including the effect of deferred taxes), including a return on those investments calculated in accordance with the utility's authorized cost of capital and associated depreciation expenses computed in accordance with depreciation schedules authorized by the Commission.

2.10. **Commission or CPUC:** The California Public Utilities Commission.

2.11. **Commission Approval:** A decision of the Commission approving the Agreement in the form submitted without modification that has become final and is no longer subject to appeal.

2.12. **Consolidated Proceedings**: All proceedings that have been consolidated with the OII, including A. 13-01-016, A. 13-03-005, A. 13-03-013, and A. 13-03-014.

2.13. **CWIP:** CWIP means Construction Work In Progress or replacement projects (retirement work in progress or net salvage) recorded directly in accumulated depreciation.

(a) **Cancelled CWIP:** The total Original Cost of CWIP associated with SONGS-related projects that began prior to the Effective Date but that will not enter service at any time after February 1, 2012.

(b) **Completed CWIP:** The total Original Cost of CWIP associated with SONGS-related projects that began prior to the Effective Date and will enter service at any point after February 1, 2012, including all CWIP that will enter service after the Effective Date.

2.14. **Effective Date:** The day of the Commission's decision adopting the ratemaking proposal set forth in this Agreement.

2.15. **ERRA:** Energy Resource Recovery Account, or its successor account.

2.16. **FERC:** Federal Energy Regulatory Commission.

2.17. **Fuel Cancellation Costs:** The total recorded costs (other than those costs that the Utilities are able to recover from the Nuclear Decommissioning Trusts) associated with cancelling SCE's contracts entered into by SCE as the SONGS Operating Agent on behalf of itself and SDG&E to purchase nuclear fuel, including but not limited to the following costs:

(a) Termination fees and other amounts paid to obtain a release of any obligations under fuel procurement contracts.

(b) Amounts paid by SCE as Operating Agent for itself and on behalf of SDG&E to fuel procurement vendors pursuant to settlements, judgments, or arbitration awards related to disputes arising from SCE's termination of alleged contractual obligations to purchase nuclear fuel.

(c) Attorney's fees and other litigation costs incurred on and after January 1, 2013 by SCE as Operating Agent for itself and on behalf of SDG&E in seeking to minimize its obligations under fuel procurement contracts through arbitrations, negotiations, and/or judicial or administrative proceedings.

2.18. **Fuel Net Proceeds:** The total proceeds of all sales of nuclear fuel, net of costs incurred by SCE as Operating Agent for itself and on behalf of SDG&E in order to sell such nuclear fuel, including but not limited to:

(a) Costs incurred in order to store the nuclear fuel inventory pending the sale; *and*

(b) Costs incurred in order to render the nuclear fuel saleable.

2.19. **Incremental Inspection and Repair Costs:** Those costs recorded by the Utilities as incremental expenses associated with SCE's efforts to inspect and repair the damage at SONGS. This amount also includes the $11 million (100% share) in costs for inspection and repair of SONGS that SCE originally recorded as base O&M and subsequently re-classified as incremental O&M.

2.20. **Mitsubishi:** Mitsubishi Heavy Industries, Ltd., related entities such as Mitsubishi Nuclear Energy Systems and Mitsubishi Heavy Industries America Inc., and any third party who has insured or indemnified any of these entities for any amounts owed to the Utilities in respect of the replacement steam generators.

2.21. **M&S Investment:** The total Original Cost of materials and supplies investments associated with SONGS.

2.22. **M&S Net Proceeds:** The total proceeds of all sales of materials and supplies, net of costs incurred by SCE in order to sell such materials and supplies.

2.23. **NDBD&DD:** Nuclear Design Basis Documentation and Deferred Debits. NDBD costs are associated with SCE's efforts to comply with the NRC's mandate that SCE establish a nuclear design documentation system. DD costs are plant-related regulatory assets that

resolve accounting differences in capitalization policies between CPUC and FERC jurisdictions regarding the commercial operation of SONGS.

2.24. **Net Book Value:** Original Cost less the accumulated amortization and depreciation expenses, if any, associated with an investment.

2.25. **NEIL:** Nuclear Energy Insurance Limited.

2.26. **NGBA:** Non-fuel Generation Balancing Account, or its successor account.

2.27. **Non-O&M Balancing Account Expenses:** All SONGS-related expenses for pensions, post-retirement benefits other than pensions, and short-term incentive compensation that are not recorded in FERC accounts 517-532.

2.28. **Non-O&M Expenses:** All SONGS-related expenses recorded in FERC accounts 408, 924, 925, and 926 that are *not*:

(a) Non-O&M Balancing Account Expenses;

(b) Capitalized overhead; *or*

(c) Recorded in FERC accounts 517-532.

2.29. **Nuclear Decommissioning Trusts:** The trusts established by the Utilities and approved by the CPUC pursuant to the Nuclear Facilities Decommissioning Act of 1985, Cal. Pub. Util. Code Sec. 8321 et seq., for the purpose of covering costs associated with decommissioning SONGS.

2.30. **Nuclear Fuel Investment:** The Net Book Value of all nuclear fuel (including in-core fuel and pre-core fuel), *plus* all Fuel Cancellation Costs. To the extent that SCE, as Operating Agent on behalf of itself and on behalf of SDG&E, incurs additional Fuel Cancellation Costs after the date of execution of this Agreement, those costs will be added to the Nuclear Fuel Investment at the time they are incurred.

2.31. **NRC:** Nuclear Regulatory Commission.

2.32. **O&M:** Operations and Maintenance.

2.33. **OII:** Order Instituting Investigation. As used in this Agreement, the term "OII" shall refer to the proceeding initiated by the Commission in I. 12-10-013, and all Consolidated Proceedings.

2.34. **Operating Agent:** SCE is the Operating Agent responsible for the performance of the operation and maintenance of SONGS.

2.35. **ORA:** The Office of Ratepayer Advocates or its successor division.

2.36. **SCE:** Southern California Edison Company.

2.37. **SDG&E:** San Diego Gas & Electric Company.

2.38. **Settling Parties/Settling Party:** SCE, SDG&E, ORA, TURN, FOE, and CUE, or any of them.

2.39. **SGRP:** Steam Generator Replacement Project.

2.40. **SONGS:** San Onofre Nuclear Generating Station.

2.41. **SONGSBA:** SDG&E's San Onofre Nuclear Generating Station O&M Balancing Account.

2.42. **SONGS Litigation Balance:** The total SONGS Litigation Recoveries, net of SONGS Litigation Costs.

2.43. **SONGS Litigation Costs:** All litigation costs recorded since January 31, 2012, including but not limited to fees paid to outside attorneys and experts, associated with pursuing and preparing to pursue SONGS Litigation Recoveries.

2.44. **SONGS Litigation Recoveries:** Any amounts received (whether by settlement, judicial order, arbitration award, or any other recovery) by the Utilities from NEIL and/or Mitsubishi or their respective affiliates in connection with the Utilities' efforts to pursue recovery of amounts in respect of the failure of the steam generators and subsequent permanent shut down of SONGS. Any amounts obtained by the City of Riverside are not subject to this Agreement.

2.45. **SONGSMA:** SCE's San Onofre Nuclear Generating Station Memorandum Account.

2.46. **SONGSOMA:** Either Utility's San Onofre Nuclear Generating Station Outage Memorandum Account, including SDG&E's SONGS OMA.

2.47. **TURN:** The Utility Reform Network.

2.48. **U2C17 RFO:** The refueling and maintenance outage for SONGS Unit 2 that was intended to last from January 10, 2012, until March 5, 2012.

2.49. **Utility/Utilities:** SCE and SDG&E, or either of them.

III.
GENERAL RECITALS

3.1. SCE owns a 78.21% share of SONGS. SDG&E owns a 20% share of SONGS. The City of Riverside owns a 1.79% share of SONGS.

3.2. In Decision No. 05-12-040, the Commission approved SCE's application to replace the steam generators in SONGS Units 2 and 3.

3.3. In Decision No. 06-11-026, the Commission found that SDG&E's participation in the SGRP was reasonable and approved an unopposed settlement agreement, including

SDG&E's ownership share of the maximum allowable 100%, 2004$, level of the SGRP cost plus SDG&E's internal costs.

3.4. In January 2010, SCE replaced the steam generators in SONGS Unit 2. In January 2011, SCE replaced the steam generators in SONGS Unit 3.

3.5. The replacement steam generators in Units 2 and 3 were designed and manufactured by Mitsubishi.

3.6. On January 10, 2012, SONGS Unit 2 was removed from service for a scheduled refueling and maintenance outage that was expected to end on March 5, 2012.

3.7. On January 31, 2012, SONGS Unit 3 was taken offline because station operators at SONGS detected a leak in a steam generator tube.

3.8. In early February, 2012, inspections of Unit 2 steam generators showed accelerated tube wear. This tube wear caused unexpected and extensive property damage to Unit 2's steam generators

3.9. In February and March, 2012, inspections in Unit 3 revealed extensive wear on the Unit's steam generator tubes. Some of this wear was caused by the steam generator tubes rubbing against each other ("tube-to-tube wear"). This tube-to-tube wear caused unexpected and extensive property damage to Unit 3's steam generators.

3.10. On March 27, 2012, the NRC issued a Confirmatory Action Letter confirming SCE's commitment not to restart either Unit 2 or Unit 3 until the source of the tube wear was understood and SCE had confidence that the units could be safely restarted.

3.11. Further inspections of the Unit 2 steam generators revealed more property damage in the form of early indications of tube-to-tube wear. SCE formally notified the NRC of SCE's finding of tube-to-tube wear in Unit 2 on April 20, 2012.

3.12. On November 1, 2012, the Commission issued an Order Instituting Investigation Regarding San Onofre Nuclear Generating Station Units 2 and 3. (I. 12-10-013.) The Order stated that the Commission intended to examine "the causes of the outages, the utilities' responses, the future of the SONGS units, and the resulting effects on the provision of safe and reliable electric service at just and reasonable rates." The Order also set SONGS-related rates subject to refund as of January 1, 2012, and directed that the Utilities establish a memorandum account (the SONGSOMA) for the purpose of tracking those costs.

3.13. On December 10, 2012, the Commission issued Decision No. 12-11-051, which resolved SCE's 2012 General Rate Case. Decision No. 12-11-051 directed SCE to establish a memorandum account (the "SONGSMA"), effective January 1, 2012, to track certain SONGS-related costs. The Commission further ordered SCE to file a reasonableness review application for post-2011 expenses recorded in the SONGSMA by January 31, 2013. In accordance with this directive, SCE filed A. 13-01-016 on January 31, 2013. A. 13-01-016 has been consolidated with this OII.

3.14. In D.12-11-051, the Commission also made SDG&E subject to the same conditional refund of SDG&E's share of the SONGS-related O&M and capital costs. (See D.12-11-051 at 40-41, Finding of Fact 36, Conclusions of Law 21 and 22, Ordering Paragraphs 10 and 11.) On March 19, 2013, SDG&E filed A.13-03-005 requesting a reasonableness determination of SDG&E's internal SONGS costs incurred during 2012 and capital expenses (excluding the SGRP) that were invoiced by SCE to SDG&E, including SCE's overheads, and tracked in SDG&E's SONGSOMA. A.13-03-014 has been consolidated with this OII.

3.15. On January 28, 2013, the Assigned Commissioner and ALJ issued a Scoping Memo and Ruling. The Scoping Memo divided the OII into phases and provided that the OII would examine the following issues:

(a) In Phase 1, the Commission would examine:

(i) "Nature and effects of the steam generator failures in order to assess the reasonableness of SCE's consequential actions and expenditures (e.g., was it reasonable to remove fuel from unit #3)."

(ii) "Whether 2012 SONGS-related expenses recorded in the SONGSMA are reasonable and necessary, including,

(A) 100% of O&M, including segregated safety-related costs;

(B) 100% of cost-savings from personnel reductions and other avoided costs;

(C) 100% of maintenance and refueling outage expenses; and

(D) 100% of capital expenditures."

(iii) "A review of the reasonableness and effectiveness of SCE's actions and expenditures for community outreach and emergency preparedness related to the SONGS outages."

(iv) "Other issues as necessary to determine whether SCE should refund any rates preliminarily authorized in the 2012 GRC, in light of the changed facts and circumstances of the unit outages; and if so, when the refunds should occur."

(b) In Phase 2, the Commission would examine "whether any reductions to SCE's rate base and SCE's 2012 revenue requirement are warranted or required due to the extended SONGS outages."

(c) In Phase 3, the Commission would examine "causes of the [steam generator] damage and allocation of responsibility, whether claimed SGRP expenses are reasonable, including review of utility-proposed repair and/or replacement cost proposals using cost-effectiveness analysis and other factors."

(d) In Phase 4, if necessary, the Commission would examine "whether SCE's 2013 revenue requirement should be adjusted to reflect lower-than forecast O&M, Capex, replacement power costs, and other SONGS expenses."

3.16. From December, 2012, through April, 2013, the Settling Parties exchanged testimony regarding Phase 1 issues.

3.17. On March 15, 2013, SCE filed A. 13-03-005, seeking Commission approval to include the recorded capital costs of the SGRP permanently in rates. SCE's testimony in support of this application established that the total recorded cost of the SGRP was $768.5 million in nominal dollars (100% share). SCE's testimony in support of this application also established that the total recorded cost of the SGRP, adjusted for inflation using the Handy-Whitman index for fabrication and construction costs and the Commission-approved nuclear decommissioning burial escalation rates for burial costs, was $612.1 million in 2004 dollars (100% share). A. 13-03-005 has been consolidated with this OII.

3.18. On March 18, 2013, SDG&E filed A. 13-03-014, seeking Commission approval to include SGD&E's share of recorded capital costs of the SGRP permanently in rates. A. 13-03-014 has been consolidated with this OII.

3.19. On April 2, 2013, SCE served testimony addressing the energy-market related impact of the SONGS outages in its ERRA compliance review proceeding (A. 13-04-001). On May 1, 2003, SDG&E served testimony addressing the energy-market related impact of the SONGS outages in I. 12-10-013.

3.20. On April 19, 2013, ALJs Darling and Dudney issued an Order clarifying that the topics identified in the January 28, 2013, Scoping Memo applied equally to SCE and SDG&E.

3.21. On May 6, 2013, by e-mail ruling, ALJ Dudney ruled that the OII would consider the issue of "what replacement power was purchased by the utilities in 2012 as a consequence of the SONGS outages." ALJ Dudney scheduled separate evidentiary hearings to address this "replacement power" issue. The phase of the OII addressing this issue came to be known as Phase 1A.

3.22. ALJ Darling held an evidentiary hearing on Phase 1 issues from May 13, 2013, until May 17, 2013. The Settling Parties each submitted Opening and Reply Briefs on Phase 1 issues.

3.23. On June 7, 2013, SCE permanently retired SONGS Units 2 and 3. SCE had determined that Mitsubishi made errors in designing and manufacturing the replacement steam generators for Units 2 and 3. SCE determined that these errors caused deficiencies in design, manufacturing, and workmanship that prevented SCE from safely operating Units 2 or 3 as intended and contracted for. SCE determined that, because Mitsubishi had not proposed a viable plan to repair or replace the replacement steam generators in a timely manner, and because of the significant uncertainty as to whether or when Unit 2 would be permitted to restart even at partial power for a reduced operating period, it was no longer prudent to continue to pursue restart or repair.

3.24. On July 1, 2013, ALJs Darling and Dudney issued a Ruling on Miscellaneous Scheduling and Procedural Issues and Notice of Phase 2 Prehearing Conference. The ruling provided the following "statement" of the scope of Phase 2:

(a) What are the values of SONGS assets in rate base, and which of these assets should be removed from rate base pursuant to Public Utilities Code § 455.5, as of November 1, 2012, or a later date if any such asset became not "used and useful" after November 1, 2012?

(b) What are the related Operations and Maintenance costs associated with the assets removed from rate base according to [the issue] above?

(c) Any other issues relevant to the application of § 455.5 to the SONGS outage.

3.25. In July, 2013, the Settling Parties exchanged testimony on Phase 1A issues.

3.26. On July 22, 2013, ALJs Darling and Dudney further specified that Phase 1A would address "the method for calculating the cost of replacement power during 2012 due to the SONGS outage. This scope includes developing a formula/method for the calculation of costs (capacity, energy, foregone sales, and congestion) and establishing what values should be entered in to that formula."

3.27. From July, 2013, until September, 2013, the Settling Parties exchanged testimony on Phase 2 issues.

3.28. ALJ Dudney held an evidentiary hearing on Phase 1A from August 5, 2013, until August 6, 2013. The Settling Parties each filed Opening and Reply Briefs on Phase 1A issues.

3.29. ALJs Dudney and Darling held an evidentiary hearing on Phase 2 issues from October 7, 2013, until October 11, 2013. The Settling Parties each filed Opening and Reply Briefs on Phase 2 issues.

3.30. Throughout the proceeding, SCE responded to 928 data request questions propounded by the parties to the OII. SDG&E similarly responded to data request questions propounded to it by the parties to the OII.

3.31. On October 16, 2013, SCE as the Operating Agent and Edison Material Supply LLC ("EMS") filed a Request for Arbitration against Mitsubishi pursuant to the arbitration clause in the contract between EMS and Mitsubishi. Through this arbitration, which is ongoing as of the date of this Agreement, SCE and EMS are seeking recovery from Mitsubishi based on the non-operation of SONGS Units 2 and 3.

3.32. On July 18, 2013, SDG&E filed a complaint in California Superior Court against Mitsubishi seeking to recover damages SDG&E has incurred and will incur related to the defects in the steam generators. This action was later removed to Federal District Court. On August 8, 2013, Mitsubishi filed a motion to stay the action pending arbitration and on March 14, 2014, the Court issued an order granting Mitsubishi's motion on the

condition that SDG&E must be able to fully assert its own claims in an arbitration proceeding.

3.33. The Utilities have also submitted claims to NEIL based on their assessments that both SONGS units sustained accidental property damage. SCE has submitted proofs of loss under insurance policies covering SONGS and is continuing to pursue recovery as of the date of this Agreement.

3.34. On November 19, 2013, ALJs Darling and Dudney issued a Proposed Decision on Phase 1 and Phase 1A issues. Each of the Settling Parties submitted Opening Comments on the Proposed Decision on December 9, 2013. Each of the Settling Parties submitted Reply Comments on the Proposed Decision on December 16, 2013.

3.35. On January 15, 2014, the Commission held an all-party meeting to discuss the Proposed Decision on Phase 1 and Phase 1A issues.

3.36. SCE's share of the Net Book Value of the SGRP was $597 million as of February 1, 2012, including CWIP. SDG&E's share of the Net Book Value of the SGRP was $160.4 million as of February 1, 2012, including CWIP.

3.37. SCE's share of Base Plant was $622 million as of February 1, 2012, excluding CWIP. SDG&E's share of Base Plant was $165.6 million as of February 1, 2012, excluding CWIP.

3.38. SCE's share of the Nuclear Fuel Investment was $477 million as of December 31, 2013, exclusive of any paid or accrued Fuel Cancellation Costs. SDG&E's share of the Nuclear Fuel Investment was $115.8 million as of December 31, 2013, exclusive of any paid or accrued Fuel Cancellation Costs.

3.39. SCE's share of the M&S Investment was $99 million as of December 31, 2013. SDG&E's share of the M&S Investment was $10.4 million as of December 31, 2013.

3.40. SCE's share of Cancelled CWIP is estimated at $153 million as of December 31, 2013. Subject to an additional reconciliation with SCE, SDG&E's Cancelled CWIP amounts will be provided pursuant to section 6.1 hereof, subject to ORA's and TURN's prerogative stated in the last sentence thereof.

3.41. SCE's share of Completed CWIP is estimated at $302 million as of December 31, 2013. Subject to an additional reconciliation with SCE, SDG&E's Completed CWIP amounts will be provided pursuant to section 6.1 hereof, subject to ORA's and TURN's prerogative stated in the last sentence thereof.

3.42. SCE's share of O&M costs recorded in connection with the U2C17 RFO is $41.1 million, which consists of $4.9 million recorded in 2011, $35.3 million recorded in 2012, and $0.9 million recorded in 2013. SDG&E's share of O&M costs recorded in connection with the U2C17 RFO as calculated by SCE is $9.3 million.

3.43. Decision No. 12-11-051 provisionally authorized $387.4 million (100% share) in base O&M costs for the year 2012 and $397.6 million (100% share) in base O&M costs for the year 2013.

3.44. In 2012, SCE recorded $99 million (SCE share) in Incremental Inspection and Repair Costs in excess of the amount of base O&M provisionally authorized in Decision No. 12-11-051. In 2012, SCE estimated that SDG&E paid $27.0 million in total Incremental Inspection and Repair Costs, including SCE overheads and portions allocated to Base and Incremental O&M. SDG&E's base O&M provisionally authorized in Decision No. 12-11-051 and D.13-05-010 was greater than the total amount of recorded costs including overheads, as applicable to SDG&E.

3.45. SDG&E recorded $141.6 million, including overheads paid to SCE, to its SONGSBA in 2012; $27.0 million, including overheads paid to SCE, was defined by SCE as Incremental Inspection and Repair Costs in Base and Incremental O&M.

3.46. In 2013, SCE's share of recorded base O&M costs was $241 million and SCE's share of recorded Incremental Inspection and Repair Costs was $12 million.

3.47. SDG&E recorded $105.0 million, including overheads paid to SCE, to its SONGSBA in 2013.

3.48. SCE's total amount of deferred taxes on SONGS investment (excluding investment in the SGRP) as of Feb 1, 2012, was $152 million. SDG&E's total amount of deferred taxes on SONGS investment (excluding investment in the SGRP) as of February 1, 2012 is estimated at $4.5 million.

3.49. On March 27, 2014, the Settling Parties held a settlement conference in accordance with Rule 12.1(b) of the Commission's Rules of Practice and Procedure.

3.50. On April 3, 2014, the Settling Parties filed and served a Joint Motion for Adoption of Settlement Agreement.

3.51. In a ruling issued on September 5, 2014, Commissioner Florio and ALJs Darling and Dudney proposed several modifications to the settlement agreement filed on April 3, 2014.

3.52. The Settling Parties have voluntarily agreed to adopt the proposed modifications, and those modifications are reflected in this Agreement.

3.53. The General Recitals described in Sections 3.1 through 3.52 provide factual background for this Agreement, and the Commission is not asked to confirm the General Recitals as true.

IV.
AMENDED AND RESTATED SETTLEMENT AGREEMENT TERMS AND CONDITIONS

4.1. In consideration of the mutual obligations, promises, covenants and conditions contained herein, the Settling Parties agree to support approval by the Commission of this Agreement, as further described herein, and to support this Agreement in its entirety before any regulatory agency or court of law where this Agreement, its meaning or effect is an issue, and no Settling Party shall take or advocate for, either directly, or indirectly through another entity, any action that would have the effect of modifying or abrogating the terms of this Agreement.

4.2. Capital-Related Revenue Requirement for the SGRP

(a) The Capital-Related Revenue Requirement for the SGRP will be terminated as of February 1, 2012.

(b) The Utilities shall refund to ratepayers all amounts collected in rates as the Capital-Related Revenue Requirement for the SGRP for all periods on and after February 1, 2012. These amounts shall be refunded per the refund mechanism set forth in Section 4.12 of this Agreement.

(c) The Utilities will retain all amounts collected in rates as the Capital-Related Revenue Requirements for the SGRP for periods prior to February 1, 2012.

(d) The Utilities shall not recover in rates the Net Book Value of the SGRP as of February 1, 2012.

4.3. Base Plant

(a) The Utilities' respective shares of Base Plant will be removed from each Utility's respective rate base as of February 1, 2012. The Utilities will retain all amounts collected in rates in respect of Capital-Related Revenue Requirements for Base Plant for periods prior to February 1, 2012.

(b) As of February 1, 2012, the Utilities will amortize Base Plant in rates as a regulatory asset ratably over 10 years.

(i) This amortization period will begin on February 1, 2012, and will end on February 1, 2022.

(ii) The Utilities have already collected amounts in rates in respect of Capital-Related Revenue Requirements for Base Plant for periods on and after February 1, 2012. To the extent that these amounts collected exceed the amounts permitted by this Agreement for periods on and after February 1, 2012, the Utilities shall refund the excess to ratepayers. These excess amounts shall be refunded per the refund mechanism set forth in Section 4.12 of this Agreement.

(c) During the amortization period set forth in Section 4.3(b)(i) of this Agreement, each Utility shall earn a return on its respective share of unrecovered Base Plant, adjusted for deferred taxes. Each Utility's rate of return on unrecovered Base Plant shall be calculated as the Utility's Authorized Cost of Debt plus 50% of the Utility's Authorized Cost of Preferred Stock, weighted by the amount of debt and preferred stock in the Utility's authorized ratemaking capital structure. For the avoidance of doubt, the rate of return on common equity shall not be considered.

(i) The methodology for computing Base Plant to adjust for deferred taxes is illustrated in Appendix A to this Agreement.

(d) The Settling Parties agree that the Authorized Cost of Debt and the Authorized Cost of Preferred Stock described in Section 4.3(c) of this Agreement are floating rates that shall vary based on the rates authorized by the Commission at any given time.

(e) Pursuant to the method of calculating the return on Base Plant set forth in Section 4.3(c) of this Agreement, SCE will earn a rate of return of 2.95% on unrecovered Base Plant for the period February 1, 2012, through December 31, 2012. This rate of return is equal to:

(i) 6.22% weighted by the amount of debt in SCE's authorized ratemaking capital structure; *plus*

(ii) 50% of 6.01% weighted by the amount of preferred stock in SCE's authorized ratemaking capital structure.

(f) Pursuant to the method of calculating the return on Base Plant set forth in Section 4.3(c) of this Agreement, SCE will earn a rate of return of 2.62% on unrecovered Base Plant for the years 2013 and 2014. This rate of return is equal to:

(i) 5.49% weighted by the amount of debt in SCE's authorized ratemaking capital structure; *plus*

(ii) 50% of 5.79% weighted by the amount of preferred stock in SCE's authorized ratemaking capital structure.

(g) Pursuant to the method of calculating the return on Base Plant set forth in Section 4.3(c) of this Agreement, SDG&E will earn a rate of return of 2.75% on unrecovered Base Plant for the period February 1, 2012, through December 31, 2012. This rate of return is equal to:

(i) 5.62% weighted by the amount of debt in SDG&E's authorized ratemaking capital structure; *plus*

(ii) 50% of 7.25% weighted by the amount of preferred stock in SDG&E's authorized ratemaking capital structure.

(h) Pursuant to the method of calculating the return on Base Plant set forth in Section 4.3(c) of this Agreement, SDG&E will earn a rate of return of 2.35% on unrecovered Base Plant for the years 2013 and 2014. This rate of return is equal to:

(i) 5.00% weighted by the amount of debt in SDG&E's authorized ratemaking capital structure; *plus*

(ii) 50% of 6.22% weighted by the amount of preferred stock in SDG&E's authorized ratemaking capital structure.

(i) The Settling Parties agree that the rates of return set forth in Section 4.3(e)-(h) of this Agreement do not reflect income taxes associated with the Utilities' preferred equity return. Notwithstanding that fact, the Utilities will recover all income tax expenses associated with each Utility's preferred equity return. Each Utility will therefore factor in a gross-up for this income tax when calculating its revenue requirement. This gross-up would be calculated in compliance with the Commission's customary practices according to decisions rendered in OII 24, which was closed by Decision No. 84-05-036 (1984). In addition, the revenue requirement shall include franchise fees and uncollectibles.

(j) Notwithstanding Section 4.3(a) of this Agreement, the Utilities shall recover in rates all property taxes paid with respect to Base Plant, including amounts paid after February 1, 2012. To the extent rates include a forecast for these property taxes, the recovery shall be trued up to recorded amounts.

4.4. Financing

(a) At its option, each Utility may select to exclude the regulatory assets to be amortized pursuant to this Agreement when measuring each Utility's ratemaking capital structure for any purpose. In other words, the regulatory assets may be financed solely with debt, and the capital supporting these assets will not be recognized in determining each Utility's ratemaking capital structure, if the Utility so chooses. If a Utility selects this option and elects to finance the regulatory assets with debt:

(i) Except as provided in Section 4.4(a)(ii), the financing of the regulatory assets with debt will not affect the rates of return calculated as set forth in Section 4.3 and will not be used to establish the Utility's cost of capital; and

(ii) The Utility will credit ratepayers 50% of the savings reflected in the difference between the actual cost of financing the regulatory assets and the amount yielded by applying the rate of return calculated pursuant to 4.3(c), as the same may be updated from time to time. The Utility will establish one or more balancing accounts to track this difference. Fifty percent of any balance in the account shall be credited to BRRBA (for SCE) or NGBA (for SDG&E) annually.

(b) In addition, if a Utility selects this option, the Settling Parties will support exclusion, prospectively from the date of financing the regulatory assets, of the capital financing of these regulatory assets in determining the Utility's overall AFUDC rate calculation at both the CPUC and FERC.

4.5. M&S Investment

(a) Each Utility's respective share of the M&S Investment as of the last day of the month prior to the Effective Date shall be amortized as a regulatory asset ratably over the amortization period set forth for Base Plant in Section 4.3(b)(i) of this Agreement, and shall earn a rate of return during that amortization period equal to the rate set forth for Base Plant in Section 4.3(c) of this Agreement.

(b) To the extent that the Utilities are able to sell assets associated with the M&S Investment, and in order to incentivize the Utilities to do so, the following incentive mechanism shall be adopted notwithstanding the terms set forth in Section 4.5(a) of this Agreement:

(i) The Utilities shall retain their respective shares of 5% of all M&S Net Proceeds; *and*

(ii) The Utilities shall credit to their ratepayers their respective shares of the remaining 95% of all M&S Net Proceeds.

(c) On a monthly basis, the Utilities shall distribute the ratepayers' portion of the proceeds of all sales of materials and supplies by providing credits to SCE's BRRBA and SDG&E's NGBA.

(d) The Settling Parties agree that the Utilities will, to the extent permitted by applicable tax laws without penalty and CPUC action, seek reimbursement of the M&S Investment from the Nuclear Decommissioning Trusts rather than recovering this investment through rates. The Utilities will not amortize in rates any portion of the M&S Investment that has been paid for by the Nuclear Decommissioning Trusts. To the extent the Utilities are unable to obtain full reimbursement of the M&S Investment from the trusts, the unreimbursed investments shall be added to the regulatory asset described in Section 4.5(a) of this Agreement (i.e., the M&S Investment) regardless of whether the inventory associated with that asset is used by the Utilities.

4.6. Nuclear Fuel Investment

(a) The Nuclear Fuel Investment as of the last day of the month prior to the Effective Date shall be amortized as a regulatory asset ratably over the amortization period set forth for Base Plant in Section 4.3(b)(i) of this Agreement.

(b) During the amortization period set forth in Section 4.6(a) of this Agreement, the Utilities shall earn a rate of return on their respective shares of the unrecovered balance of the Nuclear Fuel Investment. This rate of return shall be equal to the cost of commercial paper (as defined in Section ZZ, 2. j of the preliminary statement of SCE's CPUC tariffs [or its successor] and in Section I.E.3 of the preliminary statement of SDG&E's CPUC tariffs [or its successor]) throughout the amortization period. The Settling Parties agree that the cost of commercial paper may change during the amortization period. The Settling Parties further agree that the rate that each Utility shall earn on the unrecovered balance of the Nuclear Fuel Investment will float with the commercial paper rate throughout the amortization period, such that each Utility will recover its actual costs of financing the Nuclear Fuel Investment with commercial paper, as those costs are incurred.

(c) The Settling Parties agree that, as of the date of execution of this Agreement, SCE still has outstanding alleged contractual obligations to purchase nuclear fuel. The Settling Parties further agree that Fuel Cancellation Costs incurred after the last day of the month prior to the Effective Date will be added to the regulatory asset described in Section 4.6(a) of this Agreement (i.e., the Nuclear Fuel Investment) as those costs are incurred.

4.7. Incentive Mechanisms For Mitigation Of Nuclear Fuel Costs

(a) To the extent that SCE is able to sell any portion of its current nuclear fuel inventory, and in order to incentivize SCE to do so, the following incentive mechanism shall be adopted notwithstanding the terms set forth in Section 4.6 of this Agreement:

(i) The Utilities shall retain their respective shares of 5% of all Fuel Net Proceeds; and

(ii) The Utilities shall credit to their ratepayers their respective shares of the remaining 95% of all Fuel Net Proceeds.

(b) Upon each sale of nuclear fuel, the Utilities shall distribute the ratepayers' portion of the Fuel Net Proceeds by reducing the amount of the regulatory asset described in Section 4.6(a) of this Agreement (i.e., the Nuclear Fuel Investment). The effect of this reduction to the Nuclear Fuel Investment shall be to decrease the yearly amount of the revenue requirement for Nuclear Fuel Investment. This reduction to the regulatory asset shall not affect the amortization period for Base Plant described in Section 4.3(b)(i) of this Agreement.

(c) To the extent that SCE, as Operating Agent on its own behalf and on behalf of SDG&E, is able to minimize the Fuel Cancellation Costs incurred after the date of execution of this Agreement, and in order to incentivize SCE to do so, the following incentive mechanism applicable to the Utilities shall be adopted notwithstanding the terms set forth in Section 4.6 of this Agreement:

(i) The regulatory asset described in Section 4.6(a) of this Agreement (i.e., the Nuclear Fuel Investment) shall be increased by 5% of the difference between:

(A) The sum of all amounts stated as SCE's purchase obligations (as Operating Agent on its own behalf and on behalf of SDG&E) in outstanding nuclear fuel contracts, on the one hand; and

(B) SCE's total recorded Fuel Cancellation Costs (as Operating Agent on its own behalf and on behalf of SDG&E), on the other hand.

(ii) The Utilities shall each establish a memorandum account to determine the yearly amount of the incentive described in Section 4.7(c)(i). In order to account for all recorded costs and cancelled obligations since January 31, 2012, each Utility shall establish this memorandum account as of January 31, 2012. Every time SCE cancels a nuclear fuel contract (or is otherwise relieved from its obligations thereunder), the Utilities shall record a positive value in this memorandum account equal to the amount stated in the contract as SCE's purchase obligation. The Utilities shall also record all Fuel Cancellation Costs, as they are incurred, as negative values in this account. If there is a negative balance in either Utility's account at the end of a given year, the negative balance will be carried over to the next year. If there is a positive balance in either Utility's account at the end of a given year, the Utility shall increase the regulatory asset described in Section 4.6(a) of this Agreement (i.e., the Nuclear Fuel Investment) by 5% of this balance. The effect of any increase to the regulatory asset pursuant to this incentive mechanism shall be to increase the yearly amount of the revenue requirement for Nuclear Fuel Investment. This increase to the regulatory asset shall not affect the amortization period for Base Plant described in Section 4.3(b)(i) of this Agreement. Positive balances shall not carry over from one year to the next; instead, the account balance shall be reset to zero on the first of the year following any increase to the regulatory asset pursuant to this Section of the Agreement.

4.8. CWIP

(a) The Utilities will recover in rates the full amounts recorded as SONGS-related CWIP, including the full amounts of both Cancelled CWIP and Completed CWIP. The CWIP balance shall be recovered as follows:

(i) For Cancelled CWIP:

(A) An AFUDC amount for the Cancelled CWIP balance will be applied from the date of the first recorded amount of Cancelled CWIP until January 31, 2012. The AFUDC rate shall be equal to the authorized AFUDC rate in effect at the time.

(B) The AFUDC amount, as calculated in Section 4.8(a)(i)(A) of this Agreement, shall be added to the balance for Cancelled CWIP.

(C) The Cancelled CWIP balance (including the AFUDC amount) as of the last day of the month prior to the Effective Date shall be amortized as a regulatory asset ratably over the amortization period set forth for Base Plant in Section 4.3(b)(i) of this Agreement.

(D) During the amortization period set forth in Section 4.8(a)(i)(C) of this Agreement, the Cancelled CWIP balance (plus all accumulated AFUDC), adjusted for deferred taxes if applicable, shall earn a rate of return equal to the rate set forth for Base Plant in Section 4.3(c) of this Agreement.

(ii) For Completed CWIP:

(A) An AFUDC amount for the Completed CWIP balance will be applied from the date of the first recorded amount of Completed CWIP until the last day of the month prior to the Effective Date. The AFUDC rate will be as follows:

(1) For the period from the date of the first recorded amount of Completed CWIP until January 31, 2012, the AFUDC rate shall be equal to the authorized AFUDC rate in effect at the time.

(2) For the period from February 1, 2012, until the date on which the associated asset was placed into service or the Effective Date (whichever is earlier) , the AFUDC rate shall be equal to the rate set forth for Base Plant in Section 4.3(c) of this Agreement.

(B) The AFUDC amount, as calculated in Section 4.8(a)(ii)(A) of this Agreement, shall be added to the balance for Completed CWIP.

(C) The Completed CWIP balance (including all accumulated AFUDC) as of the last day of the month prior to the Effective Date shall be amortized as a regulatory asset ratably starting on the date on which the associated asset was placed into service or the Effective Date (whichever is earlier) and ending on February 1, 2022.

(D) During the amortization period set forth in Section 4.8(a)(ii)(C) of this Agreement, the Completed CWIP balance (plus all accumulated AFUDC), adjusted for deferred taxes if applicable, shall earn a rate of return equal to the rate set forth for Base Plant in Section 4.3(c) of this Agreement

(b) The Settling Parties agree that the Utilities will, to the extent permitted by applicable tax laws without penalty and CPUC action, seek reimbursement of Completed CWIP that enters service after June 7, 2013, as expenses from the Nuclear Decommissioning Trusts rather than recovering this investment through rates. The Utilities will not amortize in rates any portion of the Completed CWIP balance that has been paid for by the Nuclear Decommissioning Trusts.

4.9. O&M and other costs

(a) The Utilities will retain all rate revenue collected for 2012 pursuant to the revenue requirement for SONGS base O&M (100% share) provisionally authorized in Decision No. 12-11-051, which adopted SCE's Test Year 2012 General Rate Case application, and in Decision No. 13-05-010, which adopted SDG&E's Test Year 2012 General Rate Case application.

(i) The Utilities may apply 2012 revenues to defray base O&M costs recorded in their respective SONGSOMA for 2012, as well as costs recorded in their respective SONGSOMA for 2012 associated with severance of employees at SONGS or resulting from the permanent shut down at SONGS.

(ii) The Utilities may also apply 2012 revenues to defray Incremental Inspection and Repair Costs recorded in their respective SONGSOMA for 2012, except that the Utilities shall not be allowed to recover in rates any Incremental Inspection and Repair Costs incurred in 2012 in excess of the revenue requirement for base O&M costs (100% share) provisionally authorized in Decision No. 12-11-051 and Decision No. 13-05-010.

(iii) Provided however, if applicable, SDG&E will refund any amount of provisionally authorized O&M in excess of total recorded O&M costs incurred in 2012 invoiced by SCE.

(b) Subject to the following two sentences, SCE will retain all SONGS-related rate revenue collected pursuant to the revenue requirement for Non-O&M Expenses provisionally authorized in Decision No. 12-11-051 for calendar year 2012. Notwithstanding the foregoing, SCE will refund to ratepayers any such SONGS-related rate revenues collected in 2012 pursuant to Decision No. 12-11-051 that exceed 2012 recorded Non-O&M Expenses by more than $10 million. Any amount to be refunded pursuant to this Section of the Agreement shall be refunded per the refund mechanism set forth in Section 4.12 of this Agreement.

(c) For calendar year 2012, SDG&E will retain rate revenue sufficient to defray all recorded Non-O&M Expenses.

(d) For calendar year 2012, the Utilities will retain rate revenue sufficient to defray all recorded Non-O&M Balancing Account Expenses.

(e) Provided that the sum of the amounts listed in Sections 4.9(e)(i)-(iii) of this Agreement does not exceed the revenue requirement for each Utility's respective share of SONGS base O&M costs provisionally authorized for the year 2013 pursuant to Decision Nos. 12-11-051 and 13-05-010, the Utilities will retain rate revenue sufficient to defray:

(i) All base O&M costs recorded in 2013;

(ii) All costs associated with severance of employees at SONGS or resulting from the permanent shut down at SONGS recorded in 2013; *and*

(iii) All Incremental Inspection and Repair Costs recorded in 2013.

(f) If the revenue requirement for each Utility's respective share of SONGS base O&M costs provisionally authorized for the year 2013 pursuant to Decision Nos. 12-11-051 and 13-05-010 exceeds the sum of the amounts set forth in Sections 4.9(e)(i)-(iii) of this Agreement, the Utilities shall refund to ratepayers the difference between the amounts provisionally authorized and the sum of the recorded amounts in Sections 4.9(e)(i)-(iii). Likewise, if the Utilities recover any portion of the recorded amounts in Sections 4.9(e)(i)-(iii) through the Nuclear Decommissioning Trusts, those portions shall also be refunded to ratepayers. These amounts shall be refunded per the refund mechanism set forth in Section 4.12 of this Agreement.

(g) For calendar year 2013, the Utilities will retain rate revenue sufficient to defray all recorded SONGS-related non-O&M expenses (including both Non-O&M Expenses and Non-O&M Balancing Account Expenses). The Utilities shall also seek recovery of these recorded amounts through the Nuclear Decommissioning Trusts to the extent permitted by applicable tax laws without penalty and CPUC action. If the revenue requirement for each Utility's respective share of SONGS-related non-O&M expenses provisionally authorized for the year 2013 pursuant to Decision Nos. 12-11-051 and 13-05-010 exceeds the amount of each Utility's respective recorded SONGS-related non-O&M expenses in 2013, the Utilities shall refund to ratepayers the difference between the amounts provisionally authorized and the amounts recorded. Likewise, if the Utilities recover any portion of their SONGS-related non-O&M expenses recorded in 2013 through the Nuclear Decommissioning Trusts, those portions shall also be refunded to ratepayers. Any amount to be refunded pursuant to this Section of the Agreement shall be refunded per the refund mechanism set forth in Section 4.12 of this Agreement.

(h) Each Utility shall file one or more applications for the Commission to conduct a reasonableness review of recorded 2014 SONGS-related O&M or non-O&M expenses (including both Non-O&M Expenses and Non-O&M Balancing Account Expenses), whether recovered in general rates or from the Nuclear Decommissioning Trusts.

(i) If the revenue requirement for each Utility's respective share of SONGS-related O&M and non-O&M expenses provisionally authorized for the year 2014 pursuant to Decision Nos. 12-11-051 and 13-05-010 exceeds the amount of each Utility's respective recorded SONGS-related O&M and non-O&M expenses in 2014, the Utilities shall refund to ratepayers the difference between the amounts provisionally authorized and the amounts recorded. Likewise, if the Utilities recover any portion of their SONGS-related O&M or non-O&M expenses recorded in 2014 through the Nuclear Decommissioning Trusts, and/or if the CPUC disallows any such expenses, those portions shall also be refunded to ratepayers. Section 4.9(j) of this Agreement sets forth the procedure that each Utility shall use to determine the amount of any refunds pursuant to this Section of the Agreement.

(j) In order to determine the amount of any refunds based on the difference between recorded and provisionally authorized expenses under Section 4.9(i) of this Agreement, each Utility shall use the following procedure:

(i) On the last day of the month prior to the Effective Date, each Utility shall calculate the difference between recorded and provisionally authorized amounts of SONGS-related O&M and non-O&M expenses during the time period from January 1, 2014, until the last day of available recorded cost data in 2014. If the provisionally authorized revenue requirement for such costs during this time period exceeds the recorded amount of such costs during this time period, the Utilities shall refund to ratepayers the difference between the amounts provisionally authorized and the amounts recorded, with such refund to be effectuated per the refund mechanism set forth in Section 4.12 of this Agreement.

(ii) On the last day of the month prior to the Effective Date, each Utility shall also calculate a forecast of SONGS-related O&M and non-O&M expenses for the time period from the last day of available recorded cost data in 2014 until December 31, 2014. If the provisionally authorized revenue requirement for such costs during this time period exceeds the forecasted amounts of such costs during this time period, the Utilities shall refund to ratepayers the difference between the amounts provisionally authorized and the amounts forecasted as the excess revenue is received, with such refund to be effectuated as a credit to SCE's ERRA account and SDG&E's NGBA.

(iii) In the first quarter of 2015, each Utility shall calculate the difference between recorded and forecasted amounts of SONGS-related O&M and non-O&M expenses during the time period set forth in Section 4.9(j)(ii) of this Agreement. If the forecasted revenue requirement for such costs during this time period exceeds the recorded amounts of such costs during this time period, the Utilities shall refund to ratepayers the difference between the amounts forecasted and the amounts recorded, with such refund to be effectuated as a credit to SCE's ERRA and SDG&E's NGBA.

If, on the other hand, the recorded amounts exceed the forecasted revenue requirement, the Utilities shall recover the difference between the amounts forecasted and the amounts recorded from ratepayers via a debit to SCE's ERRA account and SDG&E's NGBA.

(iv) On the last day of the month following a CPUC decision authorizing the Utilities to recover any portion of their SONGS-related O&M or non-O&M expenses recorded in 2014 through the Nuclear Decommissioning Trusts, and/or of a decision disallowing any such costs, the Utilities shall effectuate a refund of such amounts per the refund mechanism set forth in Section 4.12 of this Agreement.

(k) In determining the provisionally authorized revenue requirement for Non-O&M Expenses pursuant to Sections 4.9(b), 4.9(g), 4.9(i), and 4.9(j) of this Agreement, the Utilities shall utilize a formula agreeable to all Settling Parties for allocating company-wide expenses to SONGS, which will be described in the Utilities' Tier 2 Advice Letters filed pursuant to Section 6.1.

(l) The Utilities will recover all recorded O&M costs incurred in connection with the U2C17 RFO.

(m) Except as expressly provided in this Agreement, the O&M and other costs that the Utilities are entitled to retain pursuant to Section 4.9 of this Agreement shall not be subject to any disallowance, refund, or any form of reasonableness review by the Commission.

4.10. Market Power Purchases

(a) The Utilities will recover in rates the full amount of any costs designated as SONGS "replacement power costs," SONGS "replacement energy costs," or "net SONGS costs" incurred to purchase power in the market from January 1, 2012, until the last day of the month prior to the Effective Date.

(b) The Utilities will recover in rates the entire SONGS-related portion of the under-collected balance in each Utility's respective ERRA account as of the last day of the month prior to the Effective Date, subject to normal CPUC compliance review in the ERRA docket (i.e., review of the Utilities' Quarterly Compliance Reports and compliance with the Least-Cost Dispatch Standard). Subject to such review, the SONGS-related under-collected balances in each Utility's respective ERRA accounts shall be amortized over a period beginning on the first day of the month (or the nearest date practicable) following the Effective Date and ending no later than December 31, 2015. Although nothing in this Agreement shall limit TURN, ORA, FOE, or CUE's ability to challenge the eligibility of the non-SONGS-related portion of either Utility's under-collected ERRA balance for cost recovery, neither TURN, ORA, FOE, or CUE shall oppose either Utility's request to amortize by December 31, 2015 any portion of the under-collected balance found by the CPUC to be eligible for recovery.

(c) The Commission shall not impose any disallowance, on either of the Utilities, of any of the Utilities' costs incurred to purchase power in the market as a result of the non-operation of SONGS. None of the Settling Parties will advocate before the Commission or any other judicial, legislative, or administrative body for any disallowance of past or future costs incurred by the Utilities to purchase power in the market as a result of the non-operation of SONGS.

(d) No future adjustments or disallowances to the Utilities' ERRA accounts shall be made as a result of the non-operation of SONGS. This limitation includes foregone revenues; there will be no future adjustments or disallowances to the Utilities' ERRA accounts as a result of foregone sales of SONGS output. No Settling Party shall object in an ERRA or other Commission proceeding to the Utilities' showing on the grounds that the applied-for purchased power-related expenses were related to the non-operational status of SONGS.

4.11. SONGS Litigation Balance

(a) The SONGS Litigation Balance shall be determined by netting SONGS Litigation Costs from SONGS Litigation Recoveries. The mechanism for netting SONGS Litigation Costs from SONGS Litigation Recoveries shall be to establish memorandum accounts. In order to account for all recorded costs booked since January 31, 2012, each Utility shall establish memorandum accounts as of January 31, 2012. Each Utility shall establish the following memorandum accounts (or sub-accounts):

(i) Each Utility shall establish one memorandum account for netting costs and recoveries related to NEIL (the "NEIL Memorandum Account"). Every year, the Utilities shall record all SONGS Litigation Costs related to pursuing recovery and planning to pursue recovery from NEIL and all SONGS Litigation Recoveries received from NEIL in this memorandum account.

(ii) Each Utility shall establish one memorandum subaccount to record the SONGS Litigation Balance attributable to the NEIL Outage Policy (the "NEIL Outage Memorandum Subaccount").

(iii) Each Utility shall establish one memorandum subaccount to record the SONGS Litigation Balance attributable to all other recoveries from NEIL (the "NEIL Other Recoveries Memorandum Subaccount").

(iv) Each Utility shall establish one memorandum account for netting costs and recoveries related to Mitsubishi (the "Mitsubishi Memorandum Account"). Every year, the Utilities shall record all SONGS Litigation Costs related to pursuing recovery and planning to pursue recovery from Mitsubishi and all SONGS Litigation Recoveries received from Mitsubishi in this memorandum account.

(b) If there is a positive balance (i.e., SONGS Litigation Costs in excess of SONGS Litigation Recoveries) in any memorandum account at the end of a given year, the positive balance will be carried over to the next year. If there is a negative balance (i.e., SONGS Litigation Costs are less than SONGS Litigation Recoveries) in any memorandum account as of December 31, 2014, or at the end of any subsequent year, each Utility shall distribute to ratepayers their portion of the SONGS Litigation Recoveries as determined by the sharing formula in Section 4.11(c) of this Agreement. These amounts shall be distributed to ratepayers pursuant to the distribution method set forth in Section 4.11(d) of this Agreement. The Utilities' portion of the SONGS Litigation Recoveries, as determined by the sharing formula in Section 4.11(c) of this Agreement, shall be retained by the Utilities at the time the ratepayers' portions are distributed. Negative balances shall not carry over from one year to the next; instead, the account balance shall be reset to zero on the first of the year following any distribution of SONGS Litigation Recoveries pursuant to this Section of the Agreement.

(c) The SONGS Litigation Balance shall be shared between the Utilities and the ratepayers according to the following formulas:

(i) The negative balance in the NEIL Memorandum Account will be transferred to the NEIL Outage Memorandum Subaccount and the NEIL Other Recoveries Memorandum Subaccount, reflecting the allocation of SONGS Litigation Recoveries between the NEIL Outage Policy and other recoveries from NEIL.

(ii) The negative balance in the NEIL Outage Memorandum Subaccount shall be shared as follows:

(A) The Utilities shall retain 5% of the balance

(B) The Utilities shall distribute to ratepayers 95% of the balance

(iii) The negative balance in the NEIL Other Recoveries Memorandum Subaccount shall be shared as follows:

(A) The Utilities shall retain 17.5% of the balance

(B) The Utilities shall distribute to ratepayers 82.5% of the balance

(iv) The negative balance in the Mitsubishi Memorandum Account shall be shared as follows:

(A) The Utilities shall retain 50% of the balance

(B) The Utilities shall distribute to ratepayers 50% of the balance

(d) Any amounts to be distributed to ratepayers pursuant to Section 4.11(b) of this Agreement shall be distributed pursuant to the following distribution mechanism:

(i) The ratepayers' portion of the SONGS Litigation Balance recovered from NEIL shall be distributed to ratepayers via a credit to each Utility's respective ERRA account.

(ii) The first $282 million of SONGS Litigation Balance recovered from Mitsubishi that is distributed to SCE ratepayers pursuant to Section 4.11(b) of this Agreement shall be distributed via a credit to SCE's BRRBA.

(iii) The first $71 million of SONGS Litigation Balance recovered from Mitsubishi that is distributed to SDG&E ratepayers pursuant to Section 4.11(b) of this Agreement shall be distributed via a credit to SDG&E's NGBA.

(iv) The ratepayers' portion of any further SONGS Litigation Balance recovered from Mitsubishi shall be distributed to ratepayers as follows:

(A) First, by reducing the regulatory assets described in Sections 4.3(b), 4.8(a), 4.5(a), and 4.6(a) of this Agreement, in the order listed. The effect of the reduction to these regulatory assets shall be to decrease the yearly amount of the revenue requirement for each regulatory asset. This reduction to regulatory assets shall not affect the amortization period for the regulatory assets described in Sections 4.3(b), 4.8(a), 4.5(a), and 4.6(a) of this Agreement.

(B) Second, any remaining amounts shall be distributed via a credit to SCE's BRRBA and SDG&E's NGBA.

(e) In consideration of the Utilities retaining SONGS Litigation Recoveries to the extent of the SONGS Litigation Costs, the Utilities shall remove all SONGS Litigation Costs booked in the memorandum accounts described in Section 4.11(a) of this Agreement from the recorded costs used to develop future general rate case forecasts. Nothing in this Agreement shall preclude the Settling Parties from making any arguments in either Utility's general rate cases regarding costs used to develop general rate case forecasts.

(f) In consideration of the sharing of net SONGS Litigation Recoveries, the Utilities shall have complete discretion to settle, compromise, or otherwise resolve claims against NEIL and/or Mitsubishi in any manner and whenever the Utilities determine, in the exercise of their business judgment, without prior or subsequent review or approval, disapproval, or disallowance by the CPUC or any parties to this OII, except as provided in 4.11(g)(ii)(y).

(g) The Utilities shall promptly notify the CPUC of any such settlement, compromise, or other resolution of their claims against NEIL or MHI, provided, however, that:

(i) The Utilities may provide such notification in a manner that preserves the confidentiality thereof insofar as may be reasonably necessary to further the Utilities' flexibility to settle, compromise, or otherwise resolve such claims; *and*

(ii) The CPUC shall not review the reasonableness or prudence of the Utilities' litigation, settlement, compromise, or other resolution of such claims and shall not impose any ratemaking adjustment in respect of such claims except (x) as expressly provided in this Agreement, and (y) the CPUC may review SONGS Litigation Costs to ensure they are not exorbitant in relation to the recovery obtained.

(h) The Utilities shall each use their best efforts to provide all Settling Parties with advance notice of any such settlement, compromise, or other resolution of their claims against NEIL or MHI, to the extent possible under the circumstances and the terms of any agreement with NEIL or MHI, before the Utilities notify the CPUC or otherwise make public the agreement.

(i) The Utilities shall submit to the CPUC documentation of any final resolution of third-party litigation and documentation of SONGS Litigation Costs. The Utilities may submit such documentation subject to Public Utilities Code §583. Further, the Utilities are not required to submit privileged documents. The CPUC may review such documents to ensure that ratepayer credits are accurately calculated, and to ensure that the SONGS Litigation Costs are not exorbitant in relation to the recovery obtained.

4.12. Any amounts that the Utilities may be required to refund to ratepayers pursuant to Sections 4.2(b), 4.3(b)(ii), 4.9(b), 4.9(f), 4.9(g), 4.9(j)(i), and 4.9(j)(iv) of this Agreement shall be refunded via a reduction to each Utility's respective under-collected ERRA balance as of the last day of the month prior to the Effective Date. This refund mechanism shall not change the amortization period set forth in Section 4.10(b) of this Agreement.

4.13. For the period from the first day of the month of the Effective Date to December 31, 2014, the difference between the Capital-Related Revenue Requirement for SONGS assets provisionally authorized in Decision No. 12-11-051 and the revenue requirement for Base Plant, CWIP, M&S and Nuclear Fuel Investment shall be credited to each Utility's respective ERRA account. To the extent the difference referenced in the prior sentence is calculated based on a forecast, a true-up will be recorded in ERRA in the first quarter of 2015 to reflect the actual difference. For the period from January 1, 2015 to the date of Utility implements new base rates pursuant to its next GRC decision, such difference will be credited to ERRA (for SCE) and NGBA (for SDG&E).

4.14. Except as expressly provided in this Agreement, all costs recorded in SCE's SONGSMA, SDG&E's SONGSBA, and both Utilities' SONGSOMA shall be recovered in rates and shall not be subject to any disallowance, refund, or any form of reasonableness review by the Commission.

4.15. Because this Agreement provides a ratemaking disposition for all costs recorded in SCE's SONGSMA, SDG&E's SONGSBA, and both Utilities' SONGSOMA, these memorandum accounts will not be necessary after the last day of the month prior to the Effective Date and will be terminated by the Utilities as of that day.

4.16. Greenhouse Gas (GHG) Research: Subject to the Commission's approval of the Agreement,

(a) As part of their philanthropic programs, each of SCE and SDG&E agree to work with the University of California Energy Institute (or other existing UC entity, on one or more campuses, engaged in energy technology development) to create a Research, Development, and Demonstration (RD&D) program, whose goal would be to deploy new technologies, methodologies, and/or design modifications to reduce GHG emissions, particularly at current and future generating plants in California.

(b) The RD&D program will operate for up to five years following the Commission's approval of the Tier 2 Advice Letter described in section 4.16(e).

(c) SCE will pledge and donate $4 million annually for five years, and SDG&E will pledge and donate $1 million annually for five years, so that the total amounts donated will be $5 million annually for five years. All such donations will be from shareholder funds.

(d) Within 60 days of the Effective Date, the Utilities commit to host a meeting with UC representatives and other interested parties with the goal of crafting a Program Implementation Plan (PIP). The Commission's Energy Division shall provide support in coordinating the meeting.

(e) Within 30 days thereafter, the Utilities shall jointly file, and serve, a PIP via a Tier 2 Advice Letter that describes the process for implementation, a proposed schedule and budget, and expected results, applications, and demonstrations.

(f) The Utilities will file, and serve, an annual report to the Energy Division to apprise the Commission of the program's progress towards beta testing of developed technologies, methodologies, and/or design changes.

4.17. Resolution of Consolidated Proceedings

(a) The Settling Parties intend for this Agreement to resolve the OII and all Consolidated Proceedings in their entirety. The Settling Parties agree that the Consolidated Proceedings should be resolved as follows in this section of the Agreement

(b) A. 13-03-005

(i) The Settling Parties agree that SCE's testimony in support of A. 13-03-005 conclusively established that the total cost of the SGRP was $612.1

million in 2004 dollars (100% share). The Settling Parties shall not take the position, in any proceeding whatsoever, that SCE spent more than $612.1 million (100% share, 2004$) on the SGRP.

(ii) The Settling Parties agree that SCE's testimony in support of A. 13-03-005 utilized appropriate inflation indexes to deflate the total cost of the SGRP from nominal dollars to 2004 dollars. This includes the use of the Handy-Whitman index for fabrication and construction costs and the Commission-approved nuclear decommissioning burial escalation rates for burial costs. The Settling Parties shall not take the position, in any proceeding whatsoever, that SCE used inappropriate inflation indexes in its testimony in support of A. 13-03-005.

(iii) Because this Agreement provides a ratemaking disposition for all costs described in A. 13-03-005, no further reasonableness review is required. The Settling Parties shall jointly request that the Commission allow SCE to retain all rate revenues collected from customers for the SGRP prior to February 1, 2012, as a resolution of A. 13-03-005.

(c) A. 13-03-014

(i) The provisions set forth in Section 4.16(b)(i)-(ii) are incorporated herein as though set forth in their entirety.

(ii) Because this Agreement provides a ratemaking disposition for all costs described in A. 13-03-014, no further reasonableness review is required. The Settling Parties shall jointly request that the Commission allow SDG&E to retain all rate revenues collected from customers for the SGRP prior to February 1, 2012, as a resolution of A. 13-03-014.

(d) A. 13-01-016

(i) The Settling Parties agree that the costs recorded in SCE's SONGSMA during the year 2012 were reasonable and prudent to the extent this Agreement provides that SCE shall recover such costs.

(ii) None of the Settling Parties will take the position, in any proceeding whatsoever, that any of the costs recorded in SCE's SONGSMA during 2012 were unreasonable, or should be disallowed, except to the extent that this Agreement provides that such costs be refunded to ratepayers.

(iii) Because this Agreement provides a ratemaking disposition for all costs described in A. 13-01-016, no further reasonableness review is required. The Settling Parties shall jointly request that the Commission grant A. 13-01-016 to the extent that this Agreement provides for rate recovery of the costs recorded in SCE's SONGSMA during 2012.

(e) A. 13-03-013

(i) The Settling Parties agree that the costs recorded in SDG&E's SONGSBA during the year 2012 were reasonable and prudent to the extent this Agreement provides that SDG&E shall recover such costs.

(ii) None of the Settling Parties will take the position, in any proceeding whatsoever, that any of the costs recorded in SDG&E's SONGSBA during 2012 were unreasonable, or should be disallowed, except to the extent that this Agreement provides that such costs be refunded to ratepayers.

(iii) Because this Agreement provides a ratemaking disposition for all costs described in A. 13-03-013, no further reasonableness review is required. The Settling Parties shall jointly request that the Commission grant A. 13-03-013 to the extent that this Agreement provides for rate recovery of the costs recorded in SDG&E's SONGSBA during 2012.

4.18. In light of this Agreement, the Settling Parties urge the CPUC to withdraw the November 19, 2013, Proposed Decision on Phase 1 and Phase 1A issues.

V.
GENERAL PROVISIONS AND RESERVATIONS

5.1. The Settling Parties shall use their best efforts to obtain Commission Approval. Following execution of this Agreement, the Settling Parties shall:

(a) Jointly file a motion requesting that the Commission:

(i) Approve the Agreement in its entirety without change;

(ii) Find the Agreement to be reasonable in light of the whole record, consistent with law, and in the public interest; *and*

(iii) Expedite its consideration and approval of the Agreement in order to provide the benefits of the Agreement as soon as possible.

(b) Support and mutually defend this Agreement in its entirety until the Commission has issued final approval of the Agreement.

(c) Oppose any modifications to this Agreement proposed by any non-settling party to the OII, unless all Settling Parties jointly agree to support such modification.

(d) Cooperate reasonably on all submissions, including briefs, necessary to achieve Commission Approval of the Agreement.

(e) Review any Commission orders regarding this Agreement to determine if the Commission has changed or modified this Agreement, deleted a term, or imposed a new term in this Agreement. If any Settling Party is unwilling to accept such change, modification, deletion, or addition of a new term, that Settling Party shall so notify the other Settling Parties within 15 days of issuance of the order by the

Commission. The Settling Parties shall thereafter promptly discuss each change, modification, deletion, or new term to this Agreement found unacceptable and negotiate in good faith to achieve a resolution acceptable to all Settling Parties and promptly seek Commission approval of the resolution so achieved. Failure to resolve such change, modification, deletion, or new term to this Agreement to the satisfaction of all Settling Parties within 15 days of notification, or to obtain Commission approval of such resolution promptly thereafter, shall entitle any Settling Party to terminate this Agreement through prompt notice to all other Settling Parties.

5.2. In accordance with Rule 12.5, the Settling Parties intend that Commission adoption of this Agreement will constitute a complete resolution of this OII and will have the effect set forth in Rule 12.5 of the Commission's Rules of Practice and Procedure.

5.3. Since this Agreement represents a compromise by them, the Settling Parties have entered into each stipulation contained in this Agreement on the basis that the stipulation not be construed as an admission or concession by any Settling Party regarding any fact or matter of law at issue in this proceeding. Should this Agreement not be approved in its entirety by the Commission, the Settling Parties reserve all rights to take any position whatsoever with respect to any fact or matter of law at issue in the OII.

5.4. The Settling Parties agree that no signatory to this Agreement or any employee thereof assumes any personal liability as a result of this Agreement.

5.5. If any Settling Party fails to perform its respective obligations under this Agreement, any other Settling Party may come before the Commission to pursue a remedy including enforcement.

5.6. The provisions of this Agreement are not severable. If the Commission, or any court of competent jurisdiction, overrules or modifies as legally invalid any material provision of this Agreement, the Agreement may be considered rescinded, at the discretion of any of the Settling Parties, as of the date such ruling or modification becomes final.

5.7. The Settling Parties acknowledge and stipulate that they are agreeing to this Agreement freely, voluntarily, and without any fraud, duress, or undue influence by any other party. Each Settling Party hereby states that, through its authorized representatives, it has read and fully understands its rights, privileges, and duties under this Agreement, including each Settling Party's right to discuss this Agreement with its legal counsel and has exercised those rights, privileges, and duties to the extent deemed necessary.

5.8. In executing this Agreement, each Settling Party declares and mutually agrees that the terms and conditions herein are reasonable, consistent with the law, and in the public interest.

5.9. This Agreement constitutes the Settling Parties' entire agreement on the subject matters addressed herein, which cannot be amended or modified without the express written and signed consent of all the Settling Parties hereto.

5.10. None of the provisions of this Agreement shall be considered waived by any Settling Party unless such waiver is given in writing. The failure of a Settling Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of their rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

5.11. No Settling Party has relied, or presently relies, upon any statement promise, or representation by any other Settling Party, whether oral or written, except as specifically set forth in this Agreement. Each Settling Party expressly assumes the risk of any mistake of law or fact made by such Settling Party or its authorized representative in entering into this Agreement.

5.12. This Agreement may be executed in up to four separate counterparts by the different Settling Parties hereto with the same effect as if all Settling Parties had signed one and the same document. All such counterparts shall be deemed to be an original and shall together constitute one and the same Agreement.

5.13. This Agreement shall become effective and binding on the Settling Parties as of the Effective Date. However, the provisions of Section 5.1 of this Agreement shall impose obligations on the Settling Parties immediately upon the execution of this Agreement by all of the Settling Parties.

5.14. This Agreement shall be governed by the laws of the State of California as to all matters, including but not limited to, matters of validity, construction, effect, performance, and remedies.

5.15. To the extent this Agreement requires that any Settling Party provide notice to any other Settling Party, such notice shall be in writing and directed to the signatories to this agreement.

VI.
IMPLEMENTATION OF AMENDED AND RESTATED SETTLEMENT AGREEMENT

6.1. Within 30 days of the Effective Date, the Utilities shall file revised tariff sheets to implement the revenue requirement, accounting procedures, and charges authorized in this Agreement and to incorporate the relevant findings and conclusions of the decision adopting this Agreement. The revised tariff sheets shall become effective on filing, subject to a finding of compliance by the Energy Division, and shall comply with General Order 96-B. Notwithstanding any of the figures set forth in Sections 3.36 – 3.48 of this Agreement, ORA and TURN have the prerogative to review and validate any amounts used by the Utilities to implement the revenue requirement, accounting procedures, and charges authorized in this Agreement, to meet and confer with the Utilities to resolve any concerns, and to protest the advice letters if such concerns are not resolved to their satisfaction.

6.2. The Utilities shall file Tier 2 Advice Letters (which may be combined with Tier 2 Advice Letters proposing consolidated rate changes pursuant to the Utilities' respective General

Rate Case decisions) to implement changes to their respective revenue requirements, including implementation of changes pursuant to Sections 4.2, 4.3, 4.5, and 4.6 – 4.13 consistent with the terms of this Agreement.

6.3. The Utilities shall include in the filing of the revised tariff sheets (pursuant to Section 6.1) and the Tier 2 Advice Letters (pursuant to Section 6.2), a description of the agreed-upon formula referred to in Section 4.9(k) for allocating company-wide expenses to SONGS. The Utilities shall also include, in the filing of the revised tariff sheets (pursuant to Section 6.1) and the Tier 2 Advice Letters (pursuant to Section 6.2), documentation of any revised calculations of the revenue requirement for CWIP referred to in Section 4.8 based on changes in the Authorized Cost of Debt and Authorized Cost of Preferred Stock.

VII.
EXECUTION

IN WITNESS WHEREOF, the Settling Parties have duly executed this Agreement. This Agreement is executed in six counterparts, each of which shall be deemed an original. The undersigned represent that they are authorized to sign on behalf of the party represented.

SOUTHERN CALIFORNIA EDISON COMPANY	**SAN DIEGO GAS & ELECTRIC COMPANY**
By: _____	By: _____
Title: Senior Vice President	Title: SVP Finance, Regulatory & Legislative Affairs
Date: 9-23-2014	Date: _____

Rate Case decisions) to implement changes to their respective revenue requirements, including implementation of changes pursuant to Sections 4.2, 4.3, 4.5, and 4.6 – 4.13 consistent with the terms of this Agreement.

6.3. The Utilities shall include in the filing of the revised tariff sheets (pursuant to Section 6.1) and the Tier 2 Advice Letters (pursuant to Section 6.2), a description of the agreed-upon formula referred to in Section 4.9(k) for allocating company-wide expenses to SONGS. The Utilities shall also include, in the filing of the revised tariff sheets (pursuant to Section 6.1) and the Tier 2 Advice Letters (pursuant to Section 6.2), documentation of any revised calculations of the revenue requirement for CWIP referred to in Section 4.8 based on changes in the Authorized Cost of Debt and Authorized Cost of Preferred Stock.

VII.
EXECUTION

IN WITNESS WHEREOF, the Settling Parties have duly executed this Agreement. This Agreement is executed in six counterparts, each of which shall be deemed an original. The undersigned represent that they are authorized to sign on behalf of the party represented.

SOUTHERN CALIFORNIA EDISON COMPANY By: _____ Title: Date: _____	**SAN DIEGO GAS & ELECTRIC COMPANY** By: _____ Title: SVP Finance, Regulatory & Legislative Affairs Date: 9/23/14

THE UTILITY REFORM NETWORK By: Matthew Freedman Title: Staff Attorney Date: September 23, 2014	**OFFICE OF RATEPAYER ADVOCATES** By: _____ Title: Acting Director, Office of Ratepayer Advocates Date: _____
FRIENDS OF THE EARTH By: _____ Title: _____ Date: _____	**COALITION OF CALIFORNIA UTILITY EMPLOYEES** By: _____ Title: _____ Date: _____

THE UTILITY REFORM NETWORK By: _____ Title: Staff Attorney Date: _____	**OFFICE OF RATEPAYER ADVOCATES** By: _____ Title: Acting Director, Office of Ratepayer Advocates Date: _____
FRIENDS OF THE EARTH By: Lauren S. Chaset Title: Attorney for Friends of the Earth Date: Sep. 23, 2014	**COALITION OF CALIFORNIA UTILITY EMPLOYEES** By: _____ Title: _____ Date: _____

THE UTILITY REFORM NETWORK By: _____ Title: Staff Attorney Date: _____	**OFFICE OF RATEPAYER ADVOCATES** By: _____ FOR Title: Acting Director, Office of Ratepayer Advocates Date: 9/23/2014
FRIENDS OF THE EARTH By: _____ Title: _____ Date: _____	**COALITION OF CALIFORNIA UTILITY EMPLOYEES** By: _____ Title: _____ Date: _____

THE UTILITY REFORM NETWORK By: _____ Title: Staff Attorney Date: _____	**OFFICE OF RATEPAYER ADVOCATES** By: _____ Title: Acting Director, Office of Ratepayer Advocates Date: _____
FRIENDS OF THE EARTH By: _____ Title: _____ Date: _____	**COALITION OF CALIFORNIA UTILITY EMPLOYEES** By: Jamie Mauldin Title: attorney Date: 9/23/14

Appendix A

ILLUSTRATIVE EXAMPLE FOR BASE PLANT AND MATERIALS AND SUPPLIES (M&S)

	As of February 1, 2012
Base Plant[1]	$ 622
M&S	99
Regulatory Asset	721
Less: Accumulated Deferred Taxes[2]	(152)
Regulatory Asset, adjusted for deferred taxes	569
Rate of Return	2.95%
Return [3,4]	$ 17

[1] Base Plant excludes nuclear fuel and CWIP

[2] Includes deferred taxes associated with nuclear fuel

[3] Does not include associated income taxes

[4] Calculation of return illustrative for a single point in time; actual calculation will be based on an average

Attachment B

2014 Decommissioning Cost Estimate of SONGS Units 2 & 3

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Thomas J. Palmisano
Vice President & Chief Nuclear Officer

10 CFR 50.82(a)(4)(i)

September 23, 2014

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington D.C. 20555-0001

Subject: **Docket Nos. 50-361 and 50-362,**
San Onofre Nuclear Generating Station, Units 2 and 3
Site Specific Decommissioning Cost Estimate

References:

1. Letter from P. T. Dietrich (SCE) to the U.S. Nuclear Regulatory Commission dated June 12, 2013; Subject: Certification of Permanent Cessation of Power Operations San Onofre Nuclear Generating Station, Units 2 and 3

2. Letter from Thomas J. Palmisano (SCE) to the U.S. Nuclear Regulatory Commission dated February 13, 2014; Subject: Access to Nuclear Decommissioning Trust Funds, San Onofre Nuclear Station, Units 2 and 3

3. Letter from Richard C. Brabec (SCE) to the U.S. Nuclear Regulatory Commission dated March 12, 2014; Subject: Access to Decommissioning Trust Funds, San Onofre Nuclear Generating Station Units 2 and 3

4. Letter from Richard C. Brabec (SCE) to the U.S. Nuclear Regulatory Commission dated March 31, 2014; Subject: 10 CFR 50.75(f)(1) Decommissioning Funding Status Report, San Onofre Nuclear Generating Station Units 2 and 3

Dear Sir or Madam:

On June 12, 2013, in accordance with 10 CFR 50.82(a)(1)(i), Southern California Edison (SCE) submitted a letter to the U.S. Nuclear Regulatory Commission (NRC) (Reference 1) certifying the permanent cessation of operations at San Onofre Nuclear Generating Station (SONGS), Units 2 and 3. In accordance with 10 CFR 50.54(bb) and 10 CFR 50.82(a)(4)(i), SCE is required to submit an Irradiated Fuel Management Plan (IFMP), Site Specific Decommissioning Cost Estimate (DCE) and Post-Shutdown Decommissioning Activities Report (PSDAR) within two years of permanent cessation of operations.

The SONGS, Units 2 and 3 DCE is attached. The SONGS, Units 2 and 3 IFMP and PSDAR are being concurrently submitted under separate cover letters. The DCE provides more current estimates of annual cash flow than were previously provided in the Nuclear Decommissioning Trust Fund Exemption Request (References 2 and 3) and annual funding assurance update (Reference 4). Future filings with the California Public Utilities Commission will be based on the SONGS, Units 2 and 3 DCE and subsequent revisions.

P.O. Box 128
San Clemente, CA 92672
(949) 368-6575 PAX 86575
Fax: (949) 368-6183
Tom.Palmisano@sce.com

The descriptions of decommissioning activities and phases in the DCE are consistent with those described in the PSDAR. Both the DCE and PSDAR represent SCE's current plans and are subject to change as the project progresses. Much of the third-party contracting activities associated with decommissioning are underway but have not been finalized. As contracts are finalized and SCE progresses through the actual work of the decommissioning project, various risks will be realized or avoided and contingencies adjusted, accordingly.

Changes to significant details will be included in subsequent revisions to the DCE as required by 10 CFR 50.54(bb). Financial assurance information will be provided on an annual basis as required by 10 CFR 50.75(f)(1).

This letter does not contain any new commitments.

If there are any questions or if additional information is needed, please contact me or Ms. Andrea Sterdis at (949) 368-9985.

Sincerely,

Enclosure: San Onofre Nuclear Generating Station Units 2 and 3 Site Specific Decommissioning Cost Estimate

cc: M. L. Dapas, Regional Administrator, NRC Region IV
T. J. Wengert, NRC Project Manager, San Onofre Units 2 and 3 Decommissioning
R. E. Lantz, NRC Region IV, San Onofre Units 2 and 3
G. G. Warrick, NRC Senior Resident Inspector, San Onofre Units 2 and 3
S. Y. Hsu, California Department of Health Services, Radiologic Health Branch

ENERGYSOLUTIONS

Document No. 164001-DCE-001

2014 Decommissioning Cost Analysis of the San Onofre Nuclear Generating Station Units 2 & 3

Project No. 164001 **Rev 1**

Prepared for:
Southern California Edison.
2244 Walnut Grove Avenue
Rosemead, CA 91770

Prepared by:
Energy*Solutions*, LLC
100 Mill Plain Road
Mailbox No. 106
Danbury, CT 06811

Authored By:	Michael S. Williams, Project Manager	September 5, 2014 Date
Reviewed By:	Barry S. Sims, Technical Advisor	September 5, 2014 Date
Approved By	Michael S. Williams, Project Manager	September 5, 2014 Date

☐ New Report

☐ Title Change

☒ Report Revision

☐ Report Rewrite

Effective Date Sept 5, 2014

Electronic documents, once printed, are uncontrolled and may become outdated.
Refer to Document Control authority for the correct revision.

SONGS UNIT-2 AND UNIT-3
DECOMMISSIONING COST ESTIMATE
DESCRIPTION OF REVISION

MAJOR REVISION _____ MINOR REVISION__X_____

REVISION NUMBER – 1 EFFECTIVE DATE - 9/5/2014

The revisions contained in this MINOR REVISION to the SONGS Unit-2 and Unit-3 Decommissioning Cost Estimate are minor in nature and do not revise or otherwise impact the content or results of the cost estimate.

ITEM-1

A new Appendix-F is added to the DCE at the request of San Diego Gas & Electric Company (SDG&E) in order to provide information regarding its internal decommissioning costs which it expects to incur and to fund on its own behalf in addition to its 20% share of the Decommissioning Cost Estimate.

ITEM-2

The APPENDICES section of the DCE Table of Contents is revised to include the new APPENDIX-F SDG&E SONGS Decommissioning Costs (100%)

ITEM-3

Within the narrative section of the DCE the various appearances of the term “utility staff” have been revised to include a parenthetic statement “(Licensee)” to clarify that the utility staff means the NRC Licensee.

ITEM-4

On Table 6-1 “Cost and Schedule Summary” the title block for SPENT FUEL is revised to include “(72.30)” since this section also contains cost elements associated with ISFSI decommissioning.

ITEM-5

Added new SDG&E footnote for Table 1-1 referring to Appendix F

Electronic documents, once printed, are uncontrolled and may become outdated.
Refer to Document Control authority for the correct revision.

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FIGURES

TABLES

APPENDICES

ACRONYMS AND ABBREVIATIONS

AHSM	Advanced Horizontal Storage Modules
AIF	Atomic Industrial Forum
ALARA	As Low As Reasonably Achievable
ARO	Asset Retirement Obligation
CFR	Code of Federal Regulations
CPM	Critical Path Method
DAW	Dry Active Waste
DGC	Decommissioning General Contractor
DOE	U.S. Department of Energy
DSC	Dry Shielded Canister
ESS	Essential System
FEMA	Federal Emergency Management Agency
FSS	Final Status Survey
FTE	Full Time Equivalent
GSA	U.S. General Services Administration
GTCC	Greater Than Class C
HP	Health Physics
ISFSI	Independent Spent Fuel Storage Installation
LLRW	Low-Level Radioactive Waste
LLW	Low Level Waste
LLWPA	Low-Level Waste Policy Act
LOP	Life-of-Plant
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MPC	Multi-Purpose Canister
MWt	Megawatt thermal
NON	Non-Essential System
NRC	Nuclear Regulatory Commission
NSSS	Nuclear Steam Supply System
ORISE	Oak Ridge Institute for Science and Education
PCB	Polychlorinated Biphenyl
PGE	Pacific Gas & Electric
PSDAR	Post-Shutdown Decommissioning Activities Report
PWR	Pressurized Water Reactor
RIF	Reduction In Force
SCE	Southern California Edison
SONGS	San Onofre Nuclear Generating Station
STRUCT	Structure
TCEQ	Texas Commission on Environmental Quality
WBS	Work Breakdown Structure
WCS	Waste Control Specialists LLC
UCF	Unit Cost Factor

1.0 EXECUTIVE SUMMARY

This report presents the 2014 Decommissioning Cost Estimate (DCE) Study of the San Onofre Nuclear Generating Station (SONGS) Units 2 & 3, hereinafter referred to as the 2014 Cost Study. The San Onofre Nuclear Generating Station is operated by the Southern California Edison Company (SCE).

On June 7, 2013, SCE announced its intention to permanently cease power generation operations and shut down SONGS Units 2 & 3. Units 2 & 3 had not produced power since January 9, 2012 and January 31, 2012, respectively. SCE now has the responsibility to decommission the site. In January 2014 SCE contracted with Energy*Solutions* to evaluate decommissioning alternatives and assist in the development of a detailed project schedule and DCE to support the preparation and submittal of a Post Shutdown Decommissioning Activities Report (PSDAR) in accordance with 10 CFR 50.82(a)(4)(i), which requires that a PSDAR be submitted within two years following the permanent cessation of operations.

This study has been performed to furnish an estimate of the costs for: (1) decommissioning SONGS Units 2 & 3 to the extent required to terminate the plant's operating license pursuant to 10 CFR 50.75(c); (2) post-shutdown management of spent fuel until acceptance by the U.S. Department of Energy (DOE) pursuant to 10 CFR 50.54(bb); (3) demolition of uncontaminated structures and restoration of the site in accordance with the United States Department of Navy Grant of Easement (Ref. No. 14); and the California State Lands Commission Easement Lease (Ref. No. 15); and (4) Independent Spent Fuel Storage Installation (ISFSI) decommissioning pursuant to 10 CFR 72.30. This study includes SCE's actual costs incurred in the transitional periods following cessation of permanent operations on June 7, 2013 until December 31, 2013. Costs presented herein commencing on January 1, 2014 are estimated.

SCE's December 2012 testimony to the CPUC provided the basis for the current spent fuel management costs. SCE is continuing to review available information from the DOE to determine if the DOE start date assumption of 2024 requires updating. The DCE will be revised accordingly as new information becomes available.

Accordingly, the costs and schedules for all activities are segregated for regulatory purposes as follows: costs for "License Termination" (10 CFR 50.75(c)); costs for "Spent Fuel Management" (10 CFR 50.54(bb)); costs for "Site Restoration" (clean removal and site restoration) final site conditions; and costs for "ISFSI Decommissioning" (10 CFR 72.30). Energy*Solutions* has established a Work Breakdown Structure (WBS) and cost accounting system to differentiate between these project accounts.

This study analyzes the following technical approach to decommissioning as defined by SCE:

- DECON methodology.
- Permanent cessation of operations on June 7, 2013.
- Termination of spent fuel pool operation six years after permanent shutdown.
- Spent fuel will be stored in Multi-Purpose Canisters (MPCs) at an on-site Independent Spent Fuel Storage Installation (ISFSI).

- A dry transfer facility will not be necessary for transfer of SNF canisters for transport.
- DOE begins accepting spent fuel from the industry in 2024 and completes the removal of all SONGS spent fuel by 2049.
- Decommissioning will be performed by a Decommissioning General Contractor (DGC) with oversight by the SONGS participants.
- Incorporation of Life-of-Plant (LOP) Disposal Rates for Class A Low-Level Radioactive Waste (LLRW).
- Incorporation of disposal rates for Class B and C LLRW based on recent quotes for disposal at the Waste Control Specialists LLC (WCS) site in Andrews County, Texas.

The cost estimate results are provided in Table 1-1. Table 1-1 gives License Termination costs (which correspond to 10 CFR 50.75 (c) requirements); Spent Fuel Management costs (which correspond to 10 CFR 50.54 (bb) requirements); and Site Restoration costs (which correspond to activities such as clean building demolition and site grading and end-state preparation as required under the Site Easement).

Table 1-1
Decommissioning Cost Summary[12]
(2014 Dollars in Thousands)

Cost Account	Unit 2	Unit 3	Total
License Termination 50.75(c)	$1,034,230	$1,078,016	**$2,112,246**
Spent Fuel Management 50.54(bb)	$623,209	$652,987	**$1,276,196**
Site Restoration	$423,297	$599,507	**$1,022,804**
Totals	**$2,080,735**	**$2,330,511**	**$4,411,246**

The estimate is based on site-specific plant systems and buildings inventories. These inventories, and Energy*Solutions*' proprietary Unit Cost Factors (UCFs), were used to generate required manhours, activity schedule hours and costs, and waste volume, weight, and classification. Based on the activity schedule hours and a decommissioning activities analysis, a Critical Path Method (CPM) analysis was performed to determine the decommissioning schedules. These schedules reflect the effects of sequenced activity-dependent or distributed decommissioning elements such as planning and preparations, major component removal, building decontamination, and spent fuel shipping. The schedules are divided into project phases (periods) and presented, as noted previously, by cost account "License Termination," "Spent Fuel Management," or "Site Restoration." The summary is shown in Figure 1-1, and may also be found in Section 6.0 of this report.

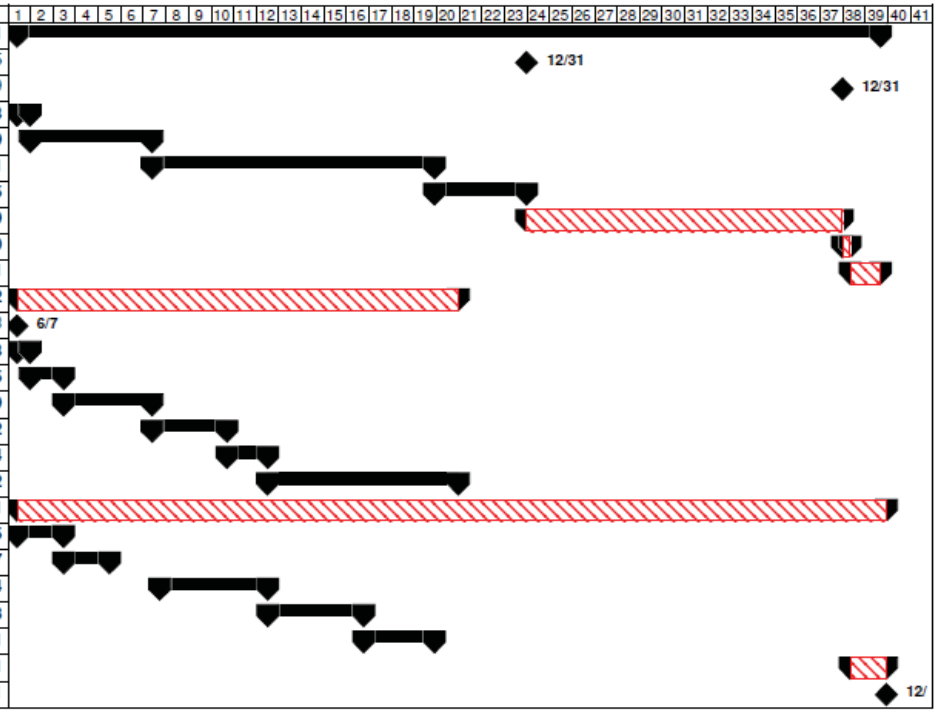
[1] In addition, the Decommissioning Cost Summary in Table 1-1 does not include separate internal costs that San Diego Gas & Electric Company (SDG&E) has indicated that it expects to incur. SDG&E provides information regarding these costs in Appendix F

[2] Rows and columns may not add correctly due to rounding.

Figure 1-1
Summary Schedule

DECON with Dry Storage, 2013 Shutdown and DOE Acceptance in 2024

Task Name	Start	Finish
Post-Shutdown Spent Fuel Management	06/07/2013	09/08/2051
Spent Fuel Shipping Complete - Unit 1	12/31/2035	12/31/2035
Spent Fuel Shipping Complete - Units 2 & 3	12/31/2049	12/31/2049
SNF Pd 1 - Spent Fuel Management Transition	06/07/2013	12/31/2013
SNF Pd 2 - Spent Fuel Transfer to Dry Storage	1/1/2014	06/01/2019
SNF Pd 3 - Dry Storage During Decommissioning - Units 1, 2 and 3	06/01/2019	12/05/2031
SNF Pd 4 - Dry Storage Only - Units 1, 2 and 3	12/05/2031	12/31/2035
SNF Pd 5 - Dry Storage Only - Units 2 and 3	12/31/2035	12/31/2049
SNF D&D Pd 1 - ISFSI D&D Planning	12/31/2049	05/06/2050
SNF D&D Pd 2 - ISFSI D&D	05/06/2050	09/08/2051
Part 50 License Termination	06/07/2013	12/24/2032
Announcement of Cessation of Operations (June 7, 2013)	06/07/2013	06/07/2013
Decon Pd 1 - Transition to Decommissioning	06/07/2013	12/31/2013
Decon Pd 2 - Decommissioning Planning and Site Modifications	1/1/2014	06/30/2015
Decon Pd 3 - Decommissioning Preparations and Reactor Internals Segmentation	06/30/2015	06/01/2019
Decon Pd 4 - Plant Systems and Large Component Removal	06/01/2019	09/24/2022
Decon Pd 5 - Building Decontamination	09/24/2022	07/13/2024
Decon Pd 6 - License Termination During Demolition	07/13/2024	12/24/2032
Site Restoration	06/07/2013	12/15/2051
SR Pd 1 - Transition to Site Restoration	06/07/2013	06/30/2015
SR Pd 2 - Building Demolition During Decommissioning	06/30/2015	07/11/2017
SR Pd 3 - Subsurface Demolition Engineering and Permitting	10/01/2019	07/13/2024
SR Pd 4 - Building Demolition to 3 Feet Below Grade	07/13/2024	10/14/2028
SR Pd 5 - Subgrade Structure Removal Below -3 Feet	10/14/2028	12/05/2031
SR Pd 6 - Final Site Restoration and Lease Termination	05/06/2050	12/15/2051
Final Easement Termination	12/15/2051	12/15/2051



2.0 INTRODUCTION

2.1 Study Objective

This report presents the 2014 Decommissioning Cost Estimate Study of the San Onofre Nuclear Generating Station (SONGS) Units 2 & 3, hereinafter referred to as the 2014 Cost Study. The San Onofre Nuclear Generating Station is owned by the Southern California Edison Company (SCE), San Diego Gas & Electric Company, and the City of Riverside. A former owner, the City of Anaheim, also has liability for decommissioning. SCE has provided the following information regarding the liability by owner for SONGS decommissioning costs:

Cost Categories	Owners			
	SDG&E	Riverside	Anaheim	SCE
SONGS 1	20%	0%	0%	80%
SONGS 2	20%	1.79%	2.4737%	75.7363%
SONGS 3	20%	1.79%	2.4625%	75.7475%
Common Facilities (Units 2 & 3)	20%	1.79%	2.4681%	75.7419%
SONGS 1 Fuel	20%	0%	0%	80%
SONGS 2/3 Fuel	20%	1.79%	2.3398%	75.8702%
ISFSI Maintenance and D&D	20%	1.6066%	2.2686%	76.1248%
San Diego Switchyard	100%	0%	0%	0%
Edison Switchyard	0%	0%	0%	100%
Interconnection Facilities	50%	0%	0%	50%
Nuclear Fuel Cancellation Charges	20%	1.79%	0%	78.21%

This study has been performed to support the development of a site-specific PSDAR and furnish an estimate of the costs for (1) decommissioning SONGS Units 2 & 3 to the extent required to terminate the plant's operating license, (2) post-shutdown management of spent fuel until acceptance by the U.S. Department of Energy (DOE), (3) demolition of uncontaminated structures and restoration of the site in accordance with the U.S. Department of Navy Grant of Easement (Ref. No. 14), and the California State Lands Commission Easement Lease (Ref. No. 15), and (4) Independent Spent Fuel Storage Installation (ISFSI) decommissioning. This study also includes SCE's actual costs incurred in the transitional periods following cessation of permanent operations until December 31, 2013. Estimated costs begin on January 1, 2014.

The study methodology follows the basic approach originally presented in the Atomic Industrial Forum/National Environmental Studies Project Report AIF/NESP-036, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," (Ref. No. 2). The report was prepared in accordance with Nuclear Regulatory Commission (NRC) Regulatory Guide 1.202, "Standard Format and Content of Decommissioning Cost Estimates for Nuclear Power Reactors," (Ref. No. 3). The estimate is based on compliance with current regulatory requirements and proven decommissioning technologies.

NRC requirements, set forth in Title 10 of the Code of Federal Regulations (CFR), differentiate between the post-shutdown costs associated with the decommissioning of the nuclear plant facility, those associated with storage of spent fuel on-site, and those associated with the decommissioning of the spent fuel storage facility. The Code of Federal Regulations, however, does not address the entire scope of the decommissioning liability for each nuclear facility. 10 CFR 50.75(c) requires funding by the licensee(s) of the facility for the decommissioning program, but specifically excludes the cost of removal and disposal of spent fuel and structures that do not require disposal as radioactive material. 10 CFR 50.75(c) also excludes the cost of site restoration activities that do not involve the removal of residual radioactivity necessary to terminate the NRC license(s). 10 CFR 50.54 (bb) requires funding by the licensee(s) "for the management of all irradiated fuel at the reactor upon expiration of the reactor operating license(s) until title to the irradiated fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository." 10 CFR 72.30 requires funding for decommissioning of the on-site spent fuel storage facility after the irradiated fuel is accepted by the DOE.

In addition to the NRC Decommissioning requirements described above, the Site Easements require the demolition and removal of all improvements installed on both the on-shore and off-shore sites, including all substructures regardless of depth, and site restoration to the satisfaction of the Grantors.

This study analyzes the following technical approach to decommissioning as defined by SCE and the co-owners:

- DECON methodology.
- Permanent cessation of operations and commencement of decommissioning planning on June 7, 2013.
- Termination of spent fuel pool operation within six years after permanent shutdown.
- Spent fuel will be stored in transportable Multi-Purpose Canisters (MPCs) at an on-site Independent Spent Fuel Storage Installation (ISFSI).
- A dry transfer facility will not be necessary for transfer of SNF canisters for transport.
- DOE begins accepting spent fuel from the industry in 2024 and completes the removal of all SONGS spent fuel by 2049.
- Decommissioning will be performed by a Decommissioning General Contractor (DGC) with oversight by the SONGS participants.

In addition, this study includes the following assumptions:

- Incorporation of Energy*Solutions*' Life-of-Plant (LOP) Disposal Rates for Class A Low-Level Radioactive Waste (LLRW), (Ref. No. 7).
- Incorporation of disposal rates for Class B and C LLRW based on recent quotes for disposal at the Waste Control Specialists LLC (WCS) site in Andrews County, Texas.

2.2 Regulatory Framework

Provisions of current laws and regulations affecting decommissioning, waste management, and spent fuel management are as follows:

1. NRC regulations require a license for on-site storage of spent fuel. Wet storage in a spent fuel pool is authorized by a facility's 10 CFR Part 50 license. On-site dry storage of spent fuel at an Independent Spent Fuel Storage Installation (ISFSI) is licensed by either: (a) the general license set forth in 10 CFR 72.210, which requires that a Part 50 license be in place; or (b) a site-specific ISFSI license issued pursuant to 10 CFR Part 72.

2. 10 CFR 50.75(c) requires funding by the licensee(s) of the facility for decommissioning.

3. 10 CFR 50.54 (bb) requires the licensee(s), within two years following permanent cessation of operation of the reactor or five years before expiration of the operating license(s), whichever occurs first, to submit written notification to the NRC for its review and preliminary approval of the program by which the licensee intends to manage and provide funding "for the management of all irradiated fuel at the reactor upon expiration of the reactor operating license until title to the irradiated fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository."

4. 10 CFR 961 (Ref. No. 4), Appendix E, requires spent fuel to be cooled for at least five years before it can be accepted by DOE as "standard spent fuel."

5. 10 CFR 72.30 requires funding by the licensee(s) for termination of the ISFSI license.

<u>Decommissioning Alternatives</u>

The three basic methods for decommissioning are DECON, SAFSTOR, and ENTOMB, which are summarized as follows:

1. DECON: The equipment, structures, and portions of the facility and site that contain radioactive contaminants are promptly removed or decontaminated to a level that permits termination of the license after cessation of operations.

2. SAFSTOR: The facility is placed in a safe, stable condition and maintained in that state (safe storage). The facility is decontaminated and dismantled at the end of the storage period to levels that permit license termination. NRC regulations require decommissioning to be completed within 60 years of cessation of operation.

3. ENTOMB: Radioactive structures, systems, and components are encased in a structurally long-lived substance, such as concrete. The entombed structure is appropriately maintained and monitored until radioactivity decays to a level that permits termination of the license. Since entombment will exceed the requirement

for decommissioning to be completed within 60 years of cessation of operation, NRC handles entombment requests on a case-by-case basis.

Post-Shutdown Spent Fuel Management Alternatives

The options for long-term post-shutdown spent fuel management currently available to power plant operators are (1) wet storage consisting of continued maintenance and operation of the spent fuel pool, and (2) dry storage consisting of transfer of spent fuel from the fuel pool to on-site dry storage modules after a cooling period or any combination of the two as is the present case at SONGS. Maintaining the spent fuel pool for an extended duration following cessation of operations prevents termination of the Part 50 license and typically has a higher annual maintenance and operating cost than the dry storage alternative. Transfer of spent fuel to an ISFSI requires additional expenditures for purchase and construction of the ISFSI and dismantlement and disposal of the ISFSI following completion of spent fuel transfer to DOE.

The spent fuel shipping schedules furnished by SCE for this study are based on projections that DOE will commence accepting spent fuel from domestic commercial nuclear power plants in 2024, and that the DOE will accept spent fuel at the rate published in DOE's July 2004 Acceptance Priority Ranking & Annual Capacity Report (DOE/RW-0567) (Ref. No. 12). These assumptions are in accordance with SCE testimony to the Public Utilities Commission of the State of California (Ref. No. 17). Additionally, SCE is reviewing available information from the DOE to determine if the DOE start date assumption requires updating. The DCE will be revised accordingly as new information becomes available.

3.0 STUDY METHODOLOGY

3.1 General Description

Energy*Solutions* maintains a proprietary decommissioning cost model based upon the fundamental technical approach established in AIF/NESP-036, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," dated May 1986 (Ref. No. 2). The cost model has been updated frequently in accordance with regulatory requirements and industry experience. The cost model includes elements for estimating distributed and undistributed costs. Distributed costs are activity specific and include planning and preparation costs as well as costs for decontamination, packaging, disposal, and removal of major components and systems. For example, costs for the segmentation, packaging, and disposal of the reactor internals are distributed costs. Undistributed costs, sometimes referred to as collateral costs, are typically time dependent costs such as utility (Licensee) and decommissioning general contractor staff, property taxes, insurance, regulatory fees and permits, energy costs, and security staff.

The methodology for preparing cost estimates for a selected decommissioning alternative requires development of a site-specific detailed work activity sequence based upon the plant inventory. The activity sequence is used to define the labor, material, equipment, energy resources, and duration required for each activity. In the case of major components, individual work sequence activity analyses are performed based on the physical and radiological characteristics of the component, and the packaging, transportation, and disposal options available.

In the case of structures and small components and equipment such as piping, pumps, and tanks, the work durations and costs are calculated based on UCFs. UCFs are economic parameters developed to express costs per unit of work output, piece of equipment, or time. They are developed using decommissioning experience, information on the latest technology applicable to decommissioning, and engineering judgment. The total cost of a specific decommissioning activity can be determined by multiplying the total number of units associated with that activity by the UCF, expressed as $/unit, for that activity. For example, the estimated demolition cost of a non-contaminated concrete structure can be obtained by multiplying the volume of concrete in the structure by the UCF for non-contaminated reinforced concrete demolition, expressed in $/unit volume. Each UCF has associated with it a man-hours/unit and schedule-hours/unit. From these values, total man-hours and total schedule-hours can be estimated for a particular activity.

3.2 Schedule Analysis

After the work activity durations are calculated for all distributed activities, a critical path schedule analysis is performed using MS Project. The schedule accounts for constraints such as spent fuel cooling periods and regulatory reviews. The schedule is typically delineated into phases or time periods (hereinafter referred to as period or periods) that differentiate manpower requirements and undistributed costs.

In order to differentiate between License Termination, Spent Fuel, and Site Restoration elements of the entire decommissioning scope of work, Energy*Solutions* has established a Work Breakdown Structure (WBS) and cost accounting system to treat each element as a subproject.

Accordingly, the overall project schedule is divided into interrelated periods with major milestones defining the beginning and ending of each period. The major milestones also serve as the basis for integrating the periods of the three subprojects.

3.3 Decommissioning Staff

Energy*Solutions* has assumed that the SONGS Units 2 and 3 decommissioning project will be performed in an efficiently planned and executed manner using project personnel experienced in decommissioning. This DCE assumes that the decommissioning will be performed by a highly experienced and qualified DGC, with oversight and management of the decommissioning operations performed by the Licensee staff. It is also assumed that the Utility (Licensee) staff will be supplemented by a professional consulting engineering firm, particularly in the planning and preparation phase.

Energy*Solutions* analyzed the SONGS licensee staff and developed a site-specific staffing plan. The SCE existing salary structure was then used as the basis for calculating Utility (Licensee) staff labor costs. Energy*Solutions* used industry data to develop DGC salary costs.

Staffing levels, for both staffing plans and for each project period, are based on the Atomic Industrial Forum (AIF) guidelines and industry experience. The sizes of the staffs are varied in each period in accordance with the requirements of the work activities. Staffing has been organized into the following departments or functional groups:

- Decommissioning
- Engineering
- Maintenance and Work Control
- Operations
- Oversight and Nuclear Safety
- Radiation Protection and Chemistry
- Regulatory and Emergency Planning
- Safety and Human Performance
- Security Administration
- Security Guard Force
- Site Management and Administration
- Additional Staff for Spent Fuel Shipping
- DGC Staff

3.4 Waste Disposal

Waste management costs comprise a significant portion of the decommissioning cost estimate. Additionally, limited future access to disposal sites licensed for receipt of Class B and C wastes introduces a significant level of uncertainty with respect to the appropriateness of using existing rate structures to estimate disposal costs of these wastes. Energy*Solutions*' approach to estimating waste disposal costs is discussed in the following paragraphs.

Waste Classification

Regulations governing disposal of radioactive waste are stringent in order to ensure control of the waste and preclude adverse impact on public health and safety. At present, LLRW disposal

is controlled by 10 CFR 61, which went into effect in December 1983. This regulation stipulates the criteria for the establishment and operation of shallow-land LLRW burial facilities. Embodied within this new regulation are criteria and classifications for packaging LLRW such that it is acceptable for burial at licensed LLRW disposal sites.

For each waste classification, 10 CFR 61 stipulates specific criteria for physical and chemical properties that the LLRW must meet in order to be accepted at a licensed disposal site. The LLRW disposal criteria of 10 CFR 61 require that LLRW generators determine the proportional amount of a number of specific radioactive isotopes present in each container of disposable LLRW. This requirement for isotopic analysis of each container of disposable LLRW is met by employing a combination of analytical techniques such as computerized analyses based upon scaling factors, sample laboratory analyses, and direct assay methods. Having performed an isotopic analysis of each container of disposable LLRW, the waste must then be classified according to one of the classifications (Class A, B, C, or Greater Than Class C (GTCC)) as defined in 10 CFR 61.

Energy*Solutions*' classification of LLRW resulting from decommissioning activities is based on AIF/NESP-036 (Ref. No. 2), NUREG/CR-0130 (Ref. No. 5), NUREG/CR-0672 (Ref. No. 6), and recent industry experience. The estimated curie content of the reactor vessel and internals at shutdown is derived from NUREG/CR-0130 for Pressurized Water Reactors (PWRs) and NUREG/CR-0672 for Boiling Water Reactors (BWRs), and adjusted for the different mass of components and period of decay.

Packaging

Selection of the type and quantity of containers required for Class B and C wastes is based on the most restrictive of either curie content, dose-rate, container weight limit, or container volume limit. GTCC wastes from segmentation of the reactor vessel internals is packaged in spent fuel canisters. The selection of container type for Class A waste is based on the transportation mode (rail, truck, barge, etc.) and waste form. The quantity of Class A waste containers is determined by the most restrictive of either container weight limit or container volume limit. Large components, such as steam generators, pressurizers, and reactor recirculation pumps, are shipped as their own containers with additional shielding as required.

Container costs are obtained from manufacturers specializing in the design and fabrication of storage containers for nuclear materials. Shielded transport cask and liner costs are obtained from the cask owners and operators.

Transportation

Transportation routes to processing and disposal facilities are determined based on available transportation modes (truck, rail, barge, or combinations). Transportation costs for the selected routes and modes are obtained from vendor quotes or published tariffs whenever possible.

Class A Disposal Options and Rates

In accordance with the existing Life-of-Plant Disposal Agreement (Ref. No. 7), all Class A waste that meets the waste acceptance criteria are to be disposed of at Energy*Solutions'* LLRW

disposal facility in Clive, Utah. All reported waste disposal costs include packaging, transportation, and any applicable surcharges.

Class B and C Disposal Options and Rates

Currently, within the United States, there are only three operational commercial near-surface disposal facilities licensed to accept Class B and C LLRW: the Barnwell facility, operated by Energy*Solutions* in Barnwell, South Carolina; the U.S. Ecology facility in Richland, Washington; and the recently licensed facility in Andrews County, Texas operated by Waste Control Specialists. Barnwell only accepts waste from states within the Atlantic Compact and U.S. Ecology only accepts waste from states within the Northwest and Rocky Mountain Compacts. However, the WCS facility will accept waste from the Texas Compact (comprised of Texas and Vermont) and from non-Compact generators. The Texas Compact Commission on March 23, 2012 approved amendments to rules allowing the import of non-compact generator LLRW for disposal at the WCS Andrews County facility.

Greater Than Class C (GTCC)

Wastes identified as 10 CFR 61 Class A, B, and C may be disposed of at near-surface disposal facilities. Certain components are highly activated and may exceed the radionuclide concentration limitations for 10 CFR 61 Class C waste. In accordance with 10 CFR 61, these components, which are referred to as Greater Than Class C (GTCC) wastes, cannot be disposed of in a near-surface LLRW disposal facility and must be transferred to a geologic repository or a similar site approved by the NRC.

Highly activated sections of the reactor vessel internals will result in GTCC waste. Presently, a facility does not exist for the disposal of wastes exceeding 10 CFR 61 Class C limitations. Energy*Solutions* assumes that the DOE will accept this waste along with spent fuel. Although courts have held that DOE is obligated to accept and dispose of GTCC, issues regarding potential costs remain potentially unsettled. Therefore, Energy*Solutions* conservatively estimates a GTCC waste disposal cost. Energy*Solutions* assumes that the GTCC waste will be packaged in spent fuel canisters and will be shipped to a storage or disposal facility operated by DOE along with the spent fuel. Additionally, Energy*Solutions* assumes shipping costs for GTCC waste to be equivalent to the commercial cost of shipping a Type B licensed, shielded cask such as the CNS 8-120B cask, which is owned and operated by Energy*Solutions*.

LLRW Volume Reduction

Becasue current Class A LLRW disposal rates are significantly lower than LLRW volume reduction rates, Energy*Solutions* does not assume on-site volume reduction techniques such as waste compaction or an aggressive decontamination, survey and release effort.

Non-Radioactive Non-Hazardous Waste Disposal

Energy*Solutions* assumes that recyclable, non-radioactive scrap metal resulting from the decommissioning program will be sold to a scrap metal dealer. However, no cost credit is assumed in the estimate for the value of the scrap metal. Clean (non-contaminated) concrete and demolition debris is assumed to be removed off site to an out of state Class III landfill consistent

with the Governor of the State of California Executive Order D-62-02 (Ref. No. 16). This study includes the costs of installation and operation of Energy*Solutions*' GAmma Radiation Detection and In-container ANalysis or GARDIAN System. The GARDIAN System performs radiological assays of bulk shipping containers. The GARDIAN System is a cost effective and efficient means to ensure all non-radiological waste and recyclable materials arising from the decommissioning and demolition of the SONGS' site comply with all applicable regulatory requirements.

Hazardous and Industrial Waste Disposal

Uncontaminated lead shielding remaining after shutdown was assumed to be removed from its installed locations and shipped offsite by entities having a need for the material. The entities will receive the lead at no charge in return for providing the removal and shipping services. Non-Radioactive contaminated surfaces coated with tightly adhering and undamaged lead based paint will be removed as non-hazardous building demolition debris. All other chemicals and hazardous materials present at shutdown will be removed and properly disposed of during decommissioning.

3.5 Final Status Survey

The cost of performing a final status survey (FSS) is based on NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)," (Ref. No. 8). Estimates of MARSSIM Class I, II, and III survey designations are based on radiological assumptions regarding contamination resulting from small and large component removal activities. The FSS activity cost calculation includes the in-place remote survey of underground metal and concrete pipe, soil, and groundwater sampling and analysis. Estimated costs for NRC and Oak Ridge Institute for Science and Education (ORISE) verification are also included, and the NRC review period is incorporated into the project schedule.

3.6 Contingency

Contingencies are applied to cost estimates primarily to allow for unknown or unplanned occurrences during the actual program, e.g., increased radioactive waste materials volumes over that expected; equipment breakdowns, weather delays, and labor strikes. This is consistent with the definition provided in the DOE Cost Estimating Guide, DOE G 430.1-1, 3-28-97 (DOE G) (Ref. No. 9). Contingency "covers costs that may result from incomplete design, unforeseen and unpredictable conditions, or uncertainties within the defined project scope. The amount of contingency will depend on the status of design, procurement, and construction; and the complexity and uncertainties of the component parts of the project. Contingency is not to be used to avoid making an accurate assessment of expected costs." Energy*Solutions* determines site-specific contingency factors to be applied to each estimate based on industry practices.

The DOE has established a recommended range of contingencies as a function of completeness of program design, DOE G. The ranges are:

Type of Estimate	Contingency Range as a % of Total Estimate
Planning Phase Estimate	20-30
Budget Estimate	15-25
Title I (Preliminary Design Estimate)	10-20
Title II (Definitive Design Estimate)	5-15

Also, the Pacific Gas & Electric Company (PG&E) Technical Position Paper "Establishing an Appropriate Contingency Factor for Inclusion in the Decommissioning Revenue Requirements" (Ref. No. 13) was developed to review and determine a "conservative contingency factor" to be applied to decommissioning cost estimates. In that study it was determined that "based on an understanding of the level of project definition, and the extent and maturity of estimate input information used to develop decommissioning cost estimates, the 25 percent contingency factor is within the range of industry recognized cost engineering practices."

The contingencies presented in this study are consistent with the values presented in DOE G 430.1-1 for a Planning Phase estimate (Ref. No. 9) and the PG&E study (Ref. No. 13). As directed by SCE, Energy*Solutions* has applied a 25% contingency to all costs in this study, with the exception of following:

2013 and 2014 Actual Expenditures	0%
Department of Navy Easement Payments	15%
Hazardous and Asbestos Wastes	50%
Site Characterization Surveys	15%
Temporary Facilities	15%
Backfill and Compaction	15%

A reactor decommissioning program will be conducted under an NRC-approved Quality Assurance Program which meets the requirements of 10 CFR 50, Appendix B. However, the development of the quality assurance program, the performance of work under that program, and the effort required to ensure compliance with the program, is already included in the detailed cost estimate. Therefore, Energy*Solutions* does not include quality assurance as an element of the contingency allowance. The same is true for contamination. Where radioactive contamination or activated materials are dealt with, the Energy*Solutions* UCFs and associated calculations fully reflect the cost impact of that material, and a separate contingency is not required specifically due to working with contamination.

3.7 Cost Reporting

Total project costs are aggregated from the distributed activity and undistributed costs into the following categories – Labor, Materials and Equipment, Waste Disposal, and Other costs. Other costs include property taxes, insurance, license fees, permits, and energy. Waste Disposal costs are the summation of packaging, transportation, base disposal rate, and any applicable surcharges. Health physics (HP) supplies and small tool costs are calculated as a component of each distributed activity cost and included in the category of Material and Equipment, with the exception that HP supplies for the Utility HP staff are calculated and reported as an undistributed line item. A line item specific contingency is then calculated for each activity cost element.

4.0 SITE SPECIFIC TECHNICAL APPROACH

4.1 Facility Description

The San Onofre Nuclear Generating Station Units 2 & 3 site is located in southern California on the shore of the Pacific Ocean, about 62 miles Southeast of Los Angeles and approximately 51 miles Northwest of San Diego. The station is located entirely within the Camp Pendleton Marine Corps Base. The current Grant of Easement for the site from the United States Department of the Navy is currently scheduled to expire May 12, 2023 (Ref. No. 14). Units 2 & 3 occupy 52.8 acres of the 84 acre site. Approximately 16 acres are occupied by the North Industrial Area (formerly Unit 1), which is where the existing ISFSI is located.

The Nuclear Steam Supply System (NSSS) for both units are identical, with two independent loops, and utilizing pressurized light water cooled reactors (PWRs) supplied by Combustion Engineering, Inc. The construction permit was issued for an initial reactor power of 3,390 MWt with licensed Rated Thermal Power of 3,438 MWt.

The facility currently has an existing ISFSI containing spent fuel that was transferred into MPCs to maintain full core offload capability during operations and to facilitate decommissioning of Unit 1. This study also assumes that the MPCs will be licensed under a 10 CFR Part 72 general license, using the manufacturer's Certificate of Compliance. The 10 CFR Part 50 license will be maintained until decommissioning is complete and all spent fuel has been transferred to DOE.

Appendix A provides a list of the SONGS Unit 2 & 3 systems and structures included in the material inventory for this study.

4.2 Decommissioning Periods

The project periods consist of six License Termination periods, seven Spent Fuel Management periods (two of which are ISFSI decontamination and demolition periods), and six Site Restoration periods. As shown in Figure 1-1 above, the periods for each of these project areas are independent from (do not compete with) the periods for the other project areas. The project periods defined for this site-specific study and the major activities performed during each period are as follows:

License Termination Periods

Decon Pd 1 –Transition to Decommissioning

- Defuel Reactors
- Notification of Permanent Fuel Removal
- Disposition of LLRW Resins

Decon Pd 2 –Decommissioning Planning and Site Modifications

- Preparation of Decommissioning License Documents
- Preparation of NRC Deliverables
- Submit PSDAR to NRC
- Perform Historical Site Assessment and Site Characterization
- Planning, Design, and Implementation of Cold & Dark (Site Repowering)

- Design and Implement Spent Fuel Pool Support System Modifications, Control Room Relocation, and Spent Fuel Security System Modifications

- Select Decommissioning General Contractor (DGC)

Decon Pd 3 – Decommissioning Preparations and Reactor Internal Segmentation

- DGC Mobilization and Planning
- System Decontamination
- Reactor Internals Removal Preparations
- Reactor Internals Segmentation Planning and Implementation
- Purchase Dry Storage Modules for GTCC Waste
- Segment and Package Reactor Internals for Storage in the ISFSI

Decon Pd 4 – Plant Systems and Large Component Removal

- Upgrade Rail Spur on 'Owner Controlled Area' (does not affect spur connecting to CALTRANS).
- Install Large Array Radiation Detection System
- Remove, Package, and Dispose of Non-Essential Systems
- Asbestos and Lead Abatement
- Fuel Pool Closure
- Remove Spent Fuel Racks, Spent Fuel Pool Island Equipment, and Bridge Cranes
- Remove and Dispose of Legacy Class B & C Wastes
- Remove, Package, and Dispose of Essential Systems
- Removal and Disposal of Spent Resins, Filter Media, and Tank Sludge
- Large Component Removal
- Prepare License Termination Plan

Decon Pd 5 – Building Decontamination

- Decon Containment Buildings – Units 2 & 3
- Decon Turbine Buildings – Units 2 & 3
- Decon Fuel Handling Buildings – Units 2 & 3
- Decon Auxiliary Radwaste Building
- Decon Auxiliary Control Building
- Decon Penetration Buildings – Units 2 & 3
- Decon Safety Equipment and Main Steam Isolation Valve Buildings – Units 2 & 3
- Radiological Survey of Structures During Decon

Decon Pd 6 – License Termination During Decommissioning

- Final Status Survey
- ORISE Verification and NRC Approval

Spent Fuel Management Periods

SNF Pd 1 – Spent Fuel Transfer Management Transition

- Implementation of Security Enhancements Required for Reductions in Staff
- Cyber Security Modifications
- Post Fukushima Modifications – Unit 2
- Design and Fabricate Spent Fuel Canisters

SNF Pd 2 – Spent Fuel Transfer to Dry Storage

- Prepare Irradiated Fuel Management Plan
- Select Dry Storage System Canister Design and Vendor
- Design and Construct ISFSI Expansion
- Purchase, Deliver and Load Spent Fuel Canisters and Transfer to ISFSI

SNF Pd 3 – Dry Storage During Decommissioning Units 1, 2, & 3

SNF Pd 4 – Dry Storage Only – Units 1, 2, & 3

SNF Pd 5 – Dry Storage Only – Units 2, & 3

SNF D&D Pd 1 – ISFSI License Termination

- Preparation and NRC Review of License Termination Plan

SNF D&D Pd 2 – ISFSI Demolition

- Verification Survey of Horizontal Storage Modules
- Clean Demolition of ISFSI AHSMs and Pads
- Clean Demolition of ISFSI Support Structures
- Restore ISFSI Site
- Preparation of Final Report on Decommissioning and NRC Review

Site Restoration Periods

SR Pd 1 –Transition to Site Restoration

- Severance Costs from Post-Shutdown Reduction in Staffing
- Phase I and II Environmental Assessment of the Mesa Site
- Disposition of Hazardous Waste at the Mesa Site
- Site Characterization of the Mesa Site

SR Pd 2 –Building Demolition During Decommissioning

- Demolish South Access for Decommissioning, South Yard Facility, and Mesa Structures
- Finish Grade and Re-vegetate Mesa Site
- Mesa Lease Termination

SR Pd 3 – Subsurface Demolition Engineering & Permitting

- Hydrogeologic Investigation and Outfall Conduit Survey
- Subsurface Structure Removal Analyses for Lease Termination Activities
- Final Site Grading and Shoreline Protection Engineering Planning and Design
- Obtain Permits and Approvals

SR Pd 4 – Building Demolition to 3 Feet Below Grade

- Demolition Preparations
- De-Tension and Remove Containment Building Tendons – Units 2 & 3
- Demolish Diesel Generator Buildings – Units 2 & 3
- Demolish Condensate Buildings and Transformer Pads – Units 2 & 3

- Demolish Full Flow Areas and Turbine Buildings – Units 2 & 3
- Demolish Auxiliary Radwaste Building
- Demolish Auxiliary Control Building
- Remove Systems and Demolish Make-up Demineralizer Structures
- Demolish Penetration Buildings – Units 2 & 3
- Demolish Safety Equipment and Main Steam Isolation Valve Buildings – Units 2 & 3
- Demolish Fuel Handling Buildings to 3 Feet Below Grade – Units 2 & 3
- Demolish Containment Buildings to 3 Feet Below Grade – Units 2 & 3
- Demolish Intake and Discharge Structures to 3 Feet Below Grade

SR Pd 5 – Subgrade Structure Removal Below – 3 Feet

- Install Sheet Piling and Excavation Shoring, Dewatering System, and Effluent Treatment and Discharge Controls
- Demolish and Backfill Unit 3 Subsurface Structures
- Demolish and Backfill Unit 2 Subsurface Structures
- Demolish and Backfill Common Subsurface Structures
- Demolish and Backfill Intake Structure Inside Seawall Below -3 Feet
- Remove Off Shore Intake and Outfall Conduits
- Remove Sheet Piling, Excavation Shoring, and Dewatering and Effluent Treatment
- Finish Grading and Re-vegetate Site

SR Pd 6 – Final Site Restoration and Easement Termination

- Obtain Required Permits and Approvals
- Install Dewatering System and Effluent Treatment and Discharge Controls
- Remove and Stockpile Existing Seawall Erosion Protection
- Remove Unit 2 & 3 Seawall and Pedestrian Walkway
- Remove Remaining Intake Structure Beneath Seawall
- Backfill and Compaction of Excavation
- Remove Dewatering System & Effluent Treatment
- Remove Railroad Tracks, Gunite Slope Protection, Access Road, and North Parking Lot
- Finish Grading and Re-vegetate Site

4.3 Decommissioning Staff

Energy*Solutions* developed staffing based on the assumption that decommissioning will be performed by an experienced and qualified DGC, with oversight and management of the decommissioning operations performed by the Utility (Licensee) staff. It is also assumed that the Utility staff will be supplemented by a professional consulting engineering firm, particularly in the planning and preparation phase. The sizes of the Utility (Licensee) and DGC staffs are varied in each period in accordance with the requirements of the work activities. Details on the staff levels, by functional group, during each period are provided in Section 6.0.

4.4 Spent Fuel Management Staff

The largest spent fuel staff is in place while the fuel pool is operational during the spent fuel cooling period and the fuel assemblies are being transferred to dry storage. After all spent fuel

has been removed from the spent fuel pool, the staff is reduced. During spent fuel pool operations and the dry storage period, the full-time spent fuel management staff is supplemented with part-time staff to support fuel movements. Details on the staff levels, by functional group, during each period are provided in Section 6.0.

4.5 Spent Fuel Shipments

The spent fuel shipping schedules are based in part on the DOE's "Acceptance Priority Ranking & Annual Capacity Report," dated July 2004. (Ref. No. 12). The information regarding existing fuel inventory, planned transfers to dry storage and DOE's projected date of 2024 for acceptance of spent fuel is based on information provided by SCE. The spent fuel shipping schedule is provided in Appendix B. The spent fuel shipment schedule is based upon best current information and assumptions, as qualified and described elsewhere in this study, including in Section 2.2 above.

5.0 BASES OF ESTIMATE AND KEY ASSUMPTIONS

The bases of, and key assumptions for, this site-specific decommissioning estimate are presented below:

1. SCE's actual decommissioning expenses incurred from the time of permanent cessation of operations on June 7, 2013 until December 31, 2013 are included in the estimate. All other decommissioning cost data used in this study is current as of 2014. Totals and subtotals have been rounded to significant figures.

2. Energy*Solutions* developed a prompt dismantlement (DECON) project schedule based on a permanent shutdown date of June 7, 2013.

3. The decommissioning will be performed using currently available technologies.

4. DOE currently has no plans, program, or schedule in place for acceptance of utility spent fuel. However, for purposes of this decommissioning cost estimate, certain simplifying assumptions must be made regarding the schedule and rate of DOE performance. Therefore, while DOE's Standard Contract governing the acceptance of SCE's spent fuel allows for alternative removal schedules, including priority for shutdown reactors and exchanges of allocations, for purposes of this estimate DOE acceptance from the industry is assumed to commence in 2024 in accordance with SCE testimony to the Public Utilities Commission of the State of California (Ref. No. 17). The spent fuel shipment schedules are based upon the assumption that the DOE will accept spent fuel at the rate published in DOE's July 2004 Acceptance Priority Ranking & Annual Capacity Report (DOE/RW-0567) (Ref. No. 12). Additionally, SCE is reviewing available information from DOE to determine if the DOE start date assumption requires updating. The DCE will be revised accordingly as new information becomes available.

5. This estimate is based on site-specific building inventories and plant systems, as provided by Energy*Solutions*.

6. All transformers on site following shutdown are assumed to be polychlorinated biphenyl (PCB)-free, therefore, this study does not include costs for disposition of PCB contaminated transformers.

7. Cost for transportation of clean scrap metal to a recycler is included in the estimate; however, no credit is taken for the value of the scrap metal. Concrete debris and all other demolition debris is assumed to be removed from the site and disposed of at an out of state Class III landfill, consistent with the Governor of the State of California Executive Order D-62-02 (Ref. No. 16). The cost of installation and operation of Energy*Solutions*' GARDIAN system for bulk radiological assay of all wastes and recyclable materials leaving the SONGS site is included in the estimate. The purpose of the GARDIAN system is to ensure all materials not intended for disposal at a licensed facility meet all applicable requirements.

8. The estimate is based on final site restoration, in which all existing and proposed structures, with the exception of the switchyard, will be removed. Clean demolition costs are based on the assumption that all site improvements will be removed in their entirety. Clean backfill will be imported and placed to re-establish grade. The entire disturbed area of the site is to be graded, to restore the natural grade to the extent possible, and seeded.

9. Uncontaminated lead shielding remaining is assumed to be removed from its installed locations and shipped offsite by entities having a need for the material. The entities receive the lead at no charge in return for providing the removal and shipping services.

10. Site-specific information regarding contaminated soil was used as a basis for calculation of current costs for their remediation. While no known radiological or chemical remediation is required at the switchyard or the Mesa, those areas will be addressed as part of the Baseline Characterization Survey and Historical Site Assessment. If the studies conclude that radiological or chemical remediation is required at the switchyard or the Mesa, the DCE will be amended. For radiological contamination found at either the switchyard or the Mesa, the DCE will be amended to include all subsequent cost estimates for the remediation, which will be paid for by the SONGS participants in accordance with their cost allocations for the 'Common Facilities'. Chemical remediation of the switchyards will be paid by either SCE or SDG&E owners of the respective switchyards.

11. Costs for hazardous waste disposal, as well as asbestos and lead abatement, are included in this study.

12. All Class A waste is assumed to be disposed of at Energy*Solutions*' facility in Clive, Utah, in accordance with the existing Life-of-Plant Disposal Agreement between Energy*Solutions* and Southern California Edison, dated January 18, 2014 (Ref. No. 7). The following 2014 disposal rates will be applied:

    Demolition Debris and Soil - $57.97/Cubic Foot plus 5% Utah taxes
    Oversized Debris - $111.31/Cubic Foot plus 5% Utah taxes
    Containerized Waste Facility - $214.50/Cubic Foot plus 12% Utah taxes
    Large Components - $289.87/Cubic Foot plus 5% Utah taxes
    Cask Shipments - $44,059/Cask plus 12% Utah taxes

    Class A waste includes Dry Active Waste (DAW) arising from the disposal of contaminated protective clothing and health physics supplies.

13. Class B, C, and GTCC waste disposal costs are based on recent quotes for disposal of activated hardware and resins at the WCS facility. All resins and filter waste is assumed to be Class B.

14. Shipping costs for the Class B and C waste are based on a distance of 1,079 miles one way from SONGS to the WCS site.

15. GTCC is not subject to the same storage and security requirements as spent fuel and therefore is not required to be stored on the ISFSI pad. But for purposes of this estimate and to facilitate decommissioning, GTCC waste generated from the segmentation of the reactor internals is assumed to be packaged in Dry Shielded Canisters (DSCs) and placed in Advanced Horizontal Storage Modules (AHSMs) in the ISFSI to await final disposition at a DOE repository.

16. It is assumed that a total of six DSCs per unit will be required for GTCC waste.

17. Reactor vessel and internals curie estimates were derived from the values for the Reference PWR vessel and internals in NUREG/CR-0130 (Ref. No. 5). These values were adjusted for decay period.

18. The Energy*Solutions* site-specific classification of radioactive wastes for the SONGS Plant identified that the spent fuel assemblies and two components within the reactor vessel (the Core Shroud Assembly and the Lower Core Grid Plate) will exceed Class C limitations.

19. The spent fuel shipments are based upon best current information and assumptions, as qualified and described elsewhere in this study, including in Section 2.2. above.

20. Spent fuel will remain in the spent fuel pool for six years before being transferred to the ISFSI.

21. The costs for ISFSI construction and transfer of spent fuel from Units 2 & 3 to dry storage were developed by SCE and furnished to Energy*Solutions*. Following completion of spent fuel transfers to dry storage the cost of maintenance and operation of the ISFSI is distributed between Units 1, 2 and 3 based on the relative percentages of spent fuel assemblies in storage. The percentages are 10, 45, and 45 for Units 1, 2, and 3, respectively. The exception is that all property taxes are solely the liability of Units 2 & 3. Following completion of SNF Pd 4 – Dry Storage Only Units 1, 2, and 3, all ISFSI maintenance and operating costs are assigned to Units 2 & 3 until the ISFSI D&D. During ISFSI D&D costs are distributed to all three units in the same percentages of 10, 45, and 45.

22. DOE has not committed to accept SCE's canistered spent fuel. But for purposes of this estimate, it is assumed that an SCE-funded dry storage facility will not be necessary.

23. Costs for ISFSI demolition are included in this estimate. SCE assumes that portions of the AHSM concrete will be activated.

24. Energy*Solutions* has assumed that the 10 CFR Part 50 license will be maintained until DOE has taken possession of the spent fuel.

25. SCE's annual ISFSI insurance premiums of $302,000 are assumed to be incurred until all fuel shipments have been completed and the structure is no longer in use.

26. SCE's Emergency Preparedness (FEMA) fees of $500,000 per year and California Office of Emergency Services fees of $2,800,000 per year are applied until the spent fuel pool is empty. These fees were supplied by SCE.

27. SCE's current annual property taxes are assumed to be reduced to a constant $1,500,000 per year. The property taxes are a license termination expense until the completion of decommissioning, and then a spent fuel management expense until completion of the ISFSI D&D.

28. Energy*Solutions* has included the annual NRC 10 CFR 171.15(c)(2) fees, for reactors in decommissioning of $231,000/yr per unit until decommissioning is completed as a license termination expense. Following completion of decommissioning, this expense is continued as a spent fuel management cost for maintenance of the 10 CFR Part 50 license.

29. Energy*Solutions* has included Environmental Permits and Fees of $1,900,000 per year as supplied by SCE.

30. Energy*Solutions* has included NRC inspection fees during each decommissioning period based on the type and level of activities being performed.

31. SONGS annual insurance premiums, in 2014 dollars as supplied by SCE, are as follows:

    Nuclear Property Primary - $4,878,099
    Nuclear Liability - $1,151,075
    Additional Liability, Non-Nuclear - $3,576,519
    Workers' Compensation - $180,335
    Property Insurance - $353,286

    The premium amounts have been adjusted by Energy*Solutions* in accordance with information furnished by SCE to meet the requirements of each period.

32. Site operating expenses expected to be incurred during decommissioning and spent fuel management are included in the estimate. These costs include materials and services, utilities (water, gas, phone), telecommunications equipment, non-process computers, personal computers and tools and equipment. These costs were calculated based on information provided by SCE and adjusted by Energy*Solutions* to match the requirements of each period, based on staffing levels.

33. Site Lease and Easement expenses of $2,300,000 per year until the Mesa lease is terminated are included in the estimate. Following termination of the Mesa lease the site lease and easement expenses are reduced to $299,920 per year. These costs are based on information provided by SCE.

34. Utility (Licensee) staff positions and average direct burdened salary (i.e. total compensation) data in 2014 dollars were supplied by SCE.

35. Severance costs for those employees terminated as a result of SONGS decommissioning, including those costs required under California law are included in the estimate. Severance costs for Reductions-in-Force (RIFs) that occurred immediately after shutdown, and during the course of spent fuel management and decommissioning are assumed to be a site restoration expense and are included in the estimate.

36. Severance costs per employee were provided by SCE.

37. DGC staff salaries, including overhead and profit, were determined by Energy*Solutions* and represent Energy*Solutions*' standard assumptions for these rates.

38. The professional personnel used for the planning and preparation activities, and DGC personnel, are assumed to be paid per diem at the rate of $204/day, based on per diem rates from U.S. General Services Administration (GSA) for Orange County, California.

39. Craft labor rates were taken from the CA Union Craft Rate Sheet, dated January 9, 2014. Craft labor rates for disciplines not provided in the rate sheet have been taken from the 2014 RS Means Labor Rates for the Construction Industry (Ref. No. 10), for Anaheim, CA. Since the skilled laborers are assumed to be supplied by the local union hall, they will not be paid per diem.

40. The security guard force included in this estimate has been sized in accordance with the current Design Basis Threat assessment.

41. This study follows the occupational exposure principles of As Low As Reasonably Achievable (ALARA) through the use of productivity loss factors that incorporate such items as the use of respiratory protection and personnel protective clothing. These factors increase the work duration and cost.

42. The costs of all required safety analyses and safety measures for the protection of the general public, the environment, and decommissioning workers are included in the cost estimates. This reflects the requirements of:

10 CFR 20	Standards for Protection Against Radiation
10 CFR 50	Domestic Licensing of Production and Utilization Facilities
10 CFR 61	Licensing Requirements for Land Disposal of Radioactive Waste
10 CFR 71	Packaging of Radioactive Material for Transport
10 CFR 72	Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste
29 CFR 1910	Occupational Safety and Health Standards

49 CFR 170-189	Department of Transportation Regulations Governing the Transport of Hazardous Materials
Reg. Guide 1.159	Assuring the Availability of Funds for Decommissioning Nuclear Reactors

43. Activity labor costs do not include any allowance for delays between activities, nor is there any cost allowance for craft labor retained on site while waiting for work to become available.

6.0 STUDY RESULTS

This study analyzes the following technical approach to decommissioning as defined by SCE:

- Prompt DECON methodology.
- Permanent cessation of operations and commencement of decommissioning planning on June 7, 2013.
- Termination of spent fuel pool operation six years after permanent shutdown.
- Spent fuel will be stored in MPCs at an on-site ISFSI.
- A dry transfer facility will not be necessary for transfer of SNF for transport.
- Decommissioning will be performed by a DGC with oversight by the SONGS participants.
- LOP Disposal Rates are used for Class A LLRW.
- WCS Texas Disposal Rates are used for Class B and C LLRW.
- DOE begins accepting spent fuel from the industry in 2024.

Spent Fuel Shipping Schedule

The spent fuel shipping schedule is provided in Appendix B. Spent fuel shipments from the industry to DOE will begin in 2024. The spent fuel shipment schedules are based upon best current information and assumptions, as qualified and described elsewhere in this study, including in Section 2.2 above.

Cost and Schedule

Figure 6-1 is a summary project schedule. A detailed schedule is provided in Appendix C. Table 6-1 summarizes the period durations and total costs, including contingency, for License Termination, Spent Fuel, and Site Restoration activities. A detailed cost table is provided in Appendix D, and a table of annual expenditures is provided in Appendix E.

Project Staffing

This scenario is based on the assumption that decommissioning will be performed by an experienced and qualified DGC, with oversight and management of the decommissioning operations performed by the Licensee staff. Utility (Licensee) staffing levels, by organizational department and function, for each period are provided in Table 6-2. The DGC staffing levels, by organizational department and function, for each period are provided in Table 6-3.

LLRW Disposal Volumes

LLRW disposal is a significant element of the decommissioning project. The estimated cubic feet of waste are summarized as follows:

Waste Class	Unit 2	Unit 3	Total
Class A	1,832,961	1,819,680	3,652,641
Class B	7,600	7,600	15,200
Class C	4,095	4,095	8,190
GTCC	941	941	1,882

Waste disposal volumes and costs, itemized by packaging, transportation, surcharges and disposal costs by waste class and facility, are provided in Table 6-4. The waste disposal costs provided in Table 6-4 do not include contingency.

Figure 6-1
Summary Schedule

DECON with Dry Storage, 2013 Shutdown and DOE Acceptance in 2024

Task Name	Start	Finish
Post-Shutdown Spent Fuel Management	06/07/2013	09/08/2051
Spent Fuel Shipping Complete - Unit 1	12/31/2035	12/31/2035
Spent Fuel Shipping Complete - Units 2 & 3	12/31/2049	12/31/2049
SNF Pd 1 - Spent Fuel Management Transition	06/07/2013	12/31/2013
SNF Pd 2 - Spent Fuel Transfer to Dry Storage	1/1/2014	06/01/2019
SNF Pd 3 - Dry Storage During Decommissioning - Units 1, 2 and 3	06/01/2019	12/05/2031
SNF Pd 4 - Dry Storage Only - Units 1, 2 and 3	12/05/2031	12/31/2035
SNF Pd 5 - Dry Storage Only - Units 2 and 3	12/31/2035	12/31/2049
SNF D&D Pd 1 - ISFSI D&D Planning	12/31/2049	05/06/2050
SNF D&D Pd 2 - ISFSI D&D	05/06/2050	09/08/2051
Part 50 License Termination	06/07/2013	12/24/2032
Announcement of Cessation of Operations (June 7, 2013)	06/07/2013	06/07/2013
Decon Pd 1 - Transition to Decommissioning	06/07/2013	12/31/2013
Decon Pd 2 - Decommissioning Planning and Site Modifications	1/1/2014	06/30/2015
Decon Pd 3 - Decommissioning Preparations and Reactor Internals Segmentation	06/30/2015	06/01/2019
Decon Pd 4 - Plant Systems and Large Component Removal	06/01/2019	09/24/2022
Decon Pd 5 - Building Decontamination	09/24/2022	07/13/2024
Decon Pd 6 - License Termination During Demolition	07/13/2024	12/24/2032
Site Restoration	06/07/2013	12/15/2051
SR Pd 1 - Transition to Site Restoration	06/07/2013	06/30/2015
SR Pd 2 - Building Demolition During Decommissioning	06/30/2015	07/11/2017
SR Pd 3 - Subsurface Demolition Engineering and Permitting	10/01/2019	07/13/2024
SR Pd 4 - Building Demolition to 3 Feet Below Grade	07/13/2024	10/14/2028
SR Pd 5 - Subgrade Structure Removal Below -3 Feet	10/14/2028	12/05/2031
SR Pd 6 - Final Site Restoration and Lease Termination	05/06/2050	12/15/2051
Final Easement Termination	12/15/2051	12/15/2051

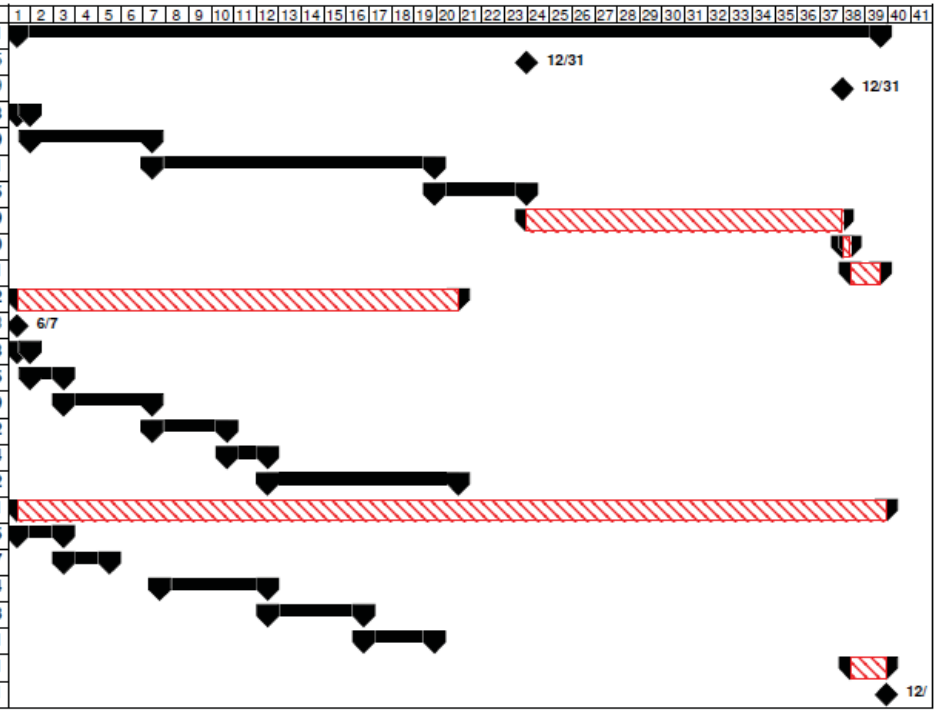


Table 6-1[3]
Cost and Schedule Summary
(2014 Dollars in Thousands)

Period No.	Period Description	Start	End	Years	Unit 2 Cost	Unit 3 Cost	Total Cost
License Termination (50.75(c))							
Decon Pd 1	Transition to Decommissioning	6/7/2013	12/31/2013	0.56	$25,749	$26,566	$52,315
Decon Pd 2	Decommissioning Planning and Site Modifications	1/1/2014	6/30/2015	1.49	$118,709	$122,430	$241,140
Decon Pd 3	Decommissioning Preparations and Reactor Internals Segmentation	6/30/2015	6/1/2019	3.92	$262,210	$276,799	$539,009
Decon Pd 4	Plant Systems and Large Component Removal	6/1/2019	9/24/2022	3.31	$392,029	$412,475	$804,504
Decon Pd 5	Building Decontamination	9/24/2022	7/13/2024	1.80	$212,447	$216,659	$429,106
Decon Pd 6	License Termination During Demolition	7/13/2024	12/24/2032	8.44	$23,085	$23,085	$46,171
Account Total				**19.52**	**$1,034,230**	**$1,078,016**	**$2,112,246**
Spent Fuel (50.54(bb)) and (72.30)							
SNF Pd 1	Spent Fuel Management Transition	6/7/2013	12/31/2013	0.56	$63,891	$66,105	$129,997
SNF Pd 2	Spent Fuel Transfer to Dry Storage	1/1/2014	6/1/2019	5.41	$344,629	$372,193	$716,822
SNF Pd 3	Dry Storage During Decommissioning - Units 1, 2 and 3	6/1/2019	12/5/2031	12.51	$61,425	$61,425	$122,849
SNF Pd 4	Dry Storage Only - Units 1, 2 and 3	12/5/2031	12/31/2035	4.07	$29,383	$29,383	$58,765
SNF Pd 5	Dry Storage Only - Units 2 and 3	12/31/2035	12/31/2049	14.00	$107,326	$107,326	$214,653
SNF D&D Pd 1	ISFSI License Termination	12/31/2049	5/6/2050	0.34	$1,260	$1,260	$2,520
SNF D&D Pd 2	ISFSI Demolition	5/6/2050	9/8/2051	1.34	$15,295	$15,295	$30,590
Account Total				**38.23**	**$623,209**	**$652,987**	**$1,276,196**
Site Restoration							
SR Pd 1	Transition to Site Restoration	6/7/2013	6/30/2015	2.06	$64,280	$66,210	$130,489
SR Pd 2	Building Demolition During Decommissioning	6/30/2015	7/11/2017	2.03	$13,003	$37,242	$50,245
SR Pd 3	Subsurface Demolition Engineering and Permitting	10/1/2019	7/13/2024	4.78	$15,593	$22,319	$37,912
SR Pd 4	Building Demolition to 3 Feet Below Grade	7/13/2024	10/14/2028	4.25	$124,953	$134,113	$259,066
SR Pd 5	Subgrade Structure Removal Below - 3 Feet	10/14/2028	12/5/2031	3.14	$171,987	$269,560	$441,547
SR Pd 6	Final Site Restoration and Lease Termination	5/6/2050	12/15/2051	1.60	$33,482	$70,064	$103,545
Account Total				**17.86**	**$423,297**	**$599,507**	**$1,022,804**
Grand Total					**$2,080,735**	**$2,330,511**	**$4,411,246**

[3] Rows and columns may not add correctly due to rounding.

Table 6-2
Utility Staff Levels

License Termination – 50.75(c) Utility Staff

Department	Decon Pd 1	Decon Pd 2	Decon Pd 3	Decon Pd 4	Decon Pd 5	Decon Pd 6
Decommissioning	0	21	21	25	18	0
Engineering	0	49	14	14	12	0
Maintenance and Work Control	0	38	10	10	3	0
Operations	0	15	7	7	0	0
Oversight and Nuclear Safety	0	7	2	2	1	0
Radiation Protection and Chemistry	0	27	26	31	26	0
Regulatory and Emergency Planning	0	10	4	4	4	0.5
Safety and Human Performance	0	13	7	7	7	0
Security Admin	0	6	6	6	6	0
Security Guard Force	0	12	12	12	12	0
Site Management and Administration	0	13	13	13	9	1
Period Totals	**0**	**211**	**122**	**131**	**98**	**1.5**

Spent Fuel - 50.54(bb) Utility Staff

Department	SNF Pd 1	SNF Pd 2	SNF Pd 3	SNF Pd 4	SNF Pd 5	SNF D&D Pd 1	SNF D&D Pd 2
Spent Fuel Shipping	0	0	0	2	2	0	0
Decommissioning	0	0	0	0	0	1	1
Engineering	0	1	1	1	1	0	1
Maintenance and Work Control	0	31	0	0	0	0	0
Operations	0	45	1	1	1	0	0
Oversight and Nuclear Safety	0	1	0.25	0.25	0.25	0	0
Radiation Protection and Chemistry	0	6	4	4	4	1	2
Regulatory and Emergency Planning	0	0	0	0	0	1	1
Security Admin	0	14	10	8	8	1	1
Security Guard Force	0	178	35	35	35	5	5
Site Management and Administration	0	0	0	0	0	1	1
Period Total	**0**	**276**	**51.25**	**54.25**	**54.25**	**10**	**12**

Site Restoration - Utility Staff

Department	SR Pd 1	SR Pd 2	SR Pd 3	SR Pd 4	SR Pd 5	SR Pd 6
Decommissioning	0	2	0	5	4	2
Engineering	0	1	0	2	1	0
Maintenance and Work Control	0	1	0	2	2	2
Regulatory and Emergency Planning	0	1	0	0	0	0
Safety and Human Performance	0	1	0	2	1	1
Security Admin	0	0	0	1	1	0
Security Guard Force	0	0	0	5	5	0
Site Management and Administration	0	0	0	4	3	3
Period Totals	**0**	**6**	**0**	**21**	**17**	**8**

Table 6-3
DGC Staff Levels

License Termination – 50.75(c) DGC Staff

Department	Decon Pd 3	Decon Pd 4	Decon Pd 5	Decon Pd 6
Administration	9	17	17	0
Engineering	15	29	14	0
Health Physics	16	73	73	2
Management	3	3	3	0
Quality Assurance	2	5	4	0
Waste Operations	7	16	16	0
Period Totals	**52**	**143**	**127**	**2**

Spent Fuel - 50.54(bb) - DGC Staff

Department	SNF D&D Pd 2
Administration	1
Engineering	2
Health Physics	3
Management	1
Quality Assurance	1
Waste Operations	4
Period Totals	**12**

Site Restoration DGC Staff

Department	SR Pd 1	SR Pd 2	SR Pd 3	SR Pd 4	SR Pd 5	SR Pd 6
Administration	0	0	0	10	5	4
Engineering	0	0	0	13	11	5
Health Physics	0	0	0	3	0	0
Management	0	0	0	2	2	1
Quality Assurance	0	0	0	2	1	0
Waste Operations	0	0	0	11	7	7
Period Totals	**0**	**0**	**0**	**41**	**26**	**17**

Table 6-4
Waste Disposal Volumes
(Cost Excludes Contingency - 2014 Dollars)

Facility and Waste Class	Waste Weight (LBs)	Waste Volume (CF)	Burial Volume (CF)	Packaging Cost	Transportation Cost	Base Burial Cost	Total Disposal Cost
Class B and C Facility							
Class B	1,132,323	6,696	15,199	$1,199,186	$6,433,599	$72,635,570	$80,268,355
Class C	407,380	1,546	8,191	$2,064,309	$26,706,007	$39,142,870	$67,913,186
GTCC	92,861	190	1,882	$196,288	$1,680,000	$38,775,980	$40,652,268
	1,632,564	**8,431**	**25,272**	**$3,459,782**	**$34,819,606**	**$150,554,420**	**$188,833,808**
Energy*Solutions*							
Class A – Debris	200,560,122	3,229,506	3,308,050	$3,804,262	$13,779,286	$211,423,909	$229,007,458
Class A – Oversize	9,967,521	146,943	184,730	$187,314	$784,285	$22,669,947	$23,641,545
Class A – Containerized Waste	1,053,914	12,287	16,303	$397,152	$364,322	$4,112,378	$4,873,851
Class A – Large Component	11,480,200	108,866	136,373	$6,313,568	$69,622,664	$43,582,464	$119,518,696
Class A – Mixed Waste	62,643	3,012	3,012	$67,887	$12,448	$801,226	$881,561
	223,124,400	**3,500,614**	**3,648,469**	**$10,770,182**	**$84,563,005**	**$282,589,924**	**$377,923,111**
Other							
Out of State Class III Landfill	1,909,207,440	25,212,269	29,372,422	$0	$146,326,469	$43,929,750	$190,256,219
Scrap Metal Recycler	184,787,372	377,117	7,391,495	$0	$911,926	$0	$911,926
	2,093,994,812	**25,589,386**	**36,763,917**	**$0**	**$147,238,394**	**$43,929,750**	**$191,168,144**
Grand Total	**2,318,751,776**	**29,098,431**	**40,437,658**	**$14,229,964**	**$266,621,006**	**$477,074,094**	**$757,925,064**

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Appendix A

List of Systems and Structures

SONGS Plant System and Structure List

Common

Type	System Name or Description
Non	Not Used
Struct	Administration Building (K-40/50)
Struct	AWS Building
Struct	Building L-50
Struct	Gunite Slope Protection
Struct	High Flow Make-Up Demineralizer Area
Struct	ISFSI Support Structures
Struct	Maintenance Building 1 (B-43/B-44)
Struct	Maintenance Building 2 (B-49/B-50)
Struct	Maintenance Building 4 (B-64/B-65)
Struct	Maintenance Building 5 (B-62/B-63)
Struct	Mesa Buildings
Struct	Not Used
Struct	Outage Control Center Building
Struct	REMS Staging Pad
Struct	Seawall - Units 2 & 3
Struct	Security Access Building (A-80, 81, 82)
Struct	Service Building (K-10, 20, 30)
Struct	South Security Processing Facility (K-70)
Struct	South Yard Facility Buildings (T-10, 20, 60 and Haz Mat.)
Struct	Staging Warehouse Building
Ess	Auxilary Control Systems - Unit 2
Ess	Fuel Handling Building Systems - Unit 2
Ess	Radwaste Systems - Unit 2
Non	Condenstate Storage Systems - Unit 2
Non	Containment Building Systems - Unit 2
Non	Diesel Generator Systems - Unit 2
Non	Full Flow Areas Systems - Unit 2
Non	Intake Systems - Unit 2
Non	Penetration Building Systems - Unit 2
Non	Safety Equipment Building Systems - Unit 2
Non	Turbine Bldg Equip to 9 ft - Unit 2
Struct	Condensate Storage Area - Unit 2
Struct	Containment Building - Unit 2
Struct	Control Building - Unit 2
Struct	Diesel Generator Building - Unit 2
Struct	Fuel Handling Building - Unit 2
Struct	Full Flow Building - Unit 2
Struct	Intake Structure - Unit 2
Struct	Penetration Building - Unit 2
Struct	Radwaste Building - Unit 2
Struct	Safety Equipment Building - Unit 2
Struct	Tunnels - Unit 2
Struct	Turbine Building - Unit 2
Ess	Auxilary Control Systems - Unit 3
Ess	Fuel Handling Building Systems - Unit 3

SONGS Plant System and Structure List

Unit 3

Type	System Name or Description
Ess	Radwaste Systems - Unit 3
Non	Condenstate Storage Systems - Unit 3
Non	Containment Building Systems - Unit 3
Non	Diesel Generator Systems - Unit 3
Non	Full Flow Areas Systems - Unit 3
Non	Intake Systems - Unit 3
Non	Penetration Building Systems - Unit 3
Non	Safety Equipment Building Systems - Unit 3
Non	Turbine Bldg Equip to 9 ft - Unit 3
Non	Turbine Generator to 63 ft - Unit 3
Struct	Condensate Storage Tank Area - Unit 3
Struct	Containment Building - Unit 3
Struct	Control Building - Unit 3
Struct	Diesel Generator Building - Unit 3
Struct	Fuel Handling Building - Unit 3
Struct	Full Flow Building - Unit 3
Struct	Intake Structure - Unit 3
Struct	Penetration Building - Unit 3
Struct	Radwaste Building - Unit 3
Struct	Safety Equipment Building - Unit 3
Struct	Tunnels - Unit 3
Struct	Turbine Building - Unit 3

Appendix B

Spent Fuel Shipping Schedule

SONGS Unit 2 & Unit 3
Spent Fuel Shipping Schedule
2024 DOE Acceptance

	On-Site Inventory (Beginning of Year)				On-Site Transfers (During Year)		Off-Site Transfers (During Year)			
Year	Units 2 & 3 Fuel Assemblies in Wet Storage	Units 2 & 3 Fuel Assemblies in Dry Storage	Units 2 & 3 Fuel Assemblies in On-Site Storage	Units 2 & 3 Canisters in ISFSI	Unit 2 & 3 Fuel Assemblies Transferred to ISFSI	Unit 2 & 3 Fuel Canisters Transferred to ISFSI	Unit 2 Assemblies Transferred to DOE	Unit 3 Assemblies Transferred to DOE	Units 2 & 3 Assemblies Transferred to DOE	Units 2 & 3 Canisters Transferred to DOE
2014	2668	792	3460	33	0	0	0	0	0	0
2015	2668	792	3460	33	0	0	0	0	0	0
2016	2668	792	3460	33	0	0	0	0	0	0
2017	2668	792	3460	33	768	24	0	0	0	0
2018	1900	1560	3460	57	1,536	48	0	0	0	0
2019	364	3096	3460	105	364	13	0	0	0	0
2020	0	3460	3460	118	0	0	0	0	0	0
2021	0	3460	3460	118	0	0	0	0	0	0
2022	0	3460	3460	118	0	0	0	0	0	0
2023	0	3460	3460	118	0	0	0	0	0	0
2024	0	3460	3460	118	0	0	0	0	0	0
2025	0	3460	3460	118	0	0	0	0	0	0
2026	0	3460	3460	118	0	0	0	0	0	0
2027	0	3460	3460	118	0	0	0	0	0	0
2028	0	3460	3460	118	0	0	0	0	0	0
2029	0	3460	3460	118	0	0	0	0	0	0
2030	0	3460	3460	118	0	0	48	48	96	4
2031	0	3364	3364	114	0	0	192	96	288	12
2032	0	3076	3076	102	0	0	120	120	240	10
2033	0	2836	2836	92	0	0	0	96	96	4
2034	0	2740	2740	88	0	0	112	120	232	8
2035	0	2508	2508	80	0	0	96	96	192	6
2036	0	2316	2316	74	0	0	128	96	224	7
2037	0	2092	2092	67	0	0	0	0	0	0
2038	0	2092	2092	67	0	0	96	128	224	7
2039	0	1868	1868	60	0	0	96	96	192	6
2040	0	1676	1676	54	0	0	96	96	192	6
2041	0	1484	1484	48	0	0	0	0	0	0
2042	0	1484	1484	48	0	0	96	96	192	6
2043	0	1292	1292	42	0	0	96	96	192	6
2044	0	1100	1100	36	0	0	96	96	192	6
2045	0	908	908	30	0	0	128	96	224	7
2046	0	684	684	23	0	0	96	128	224	7
2047	0	460	460	16	0	0	96	230	326	11
2048	0	134	134	5	0	0	0	0	0	0
2049	0	134	134	5	0	0	134	0	134	5
2050	0	0	0	0	0	0	0	0	0	0

Appendix C

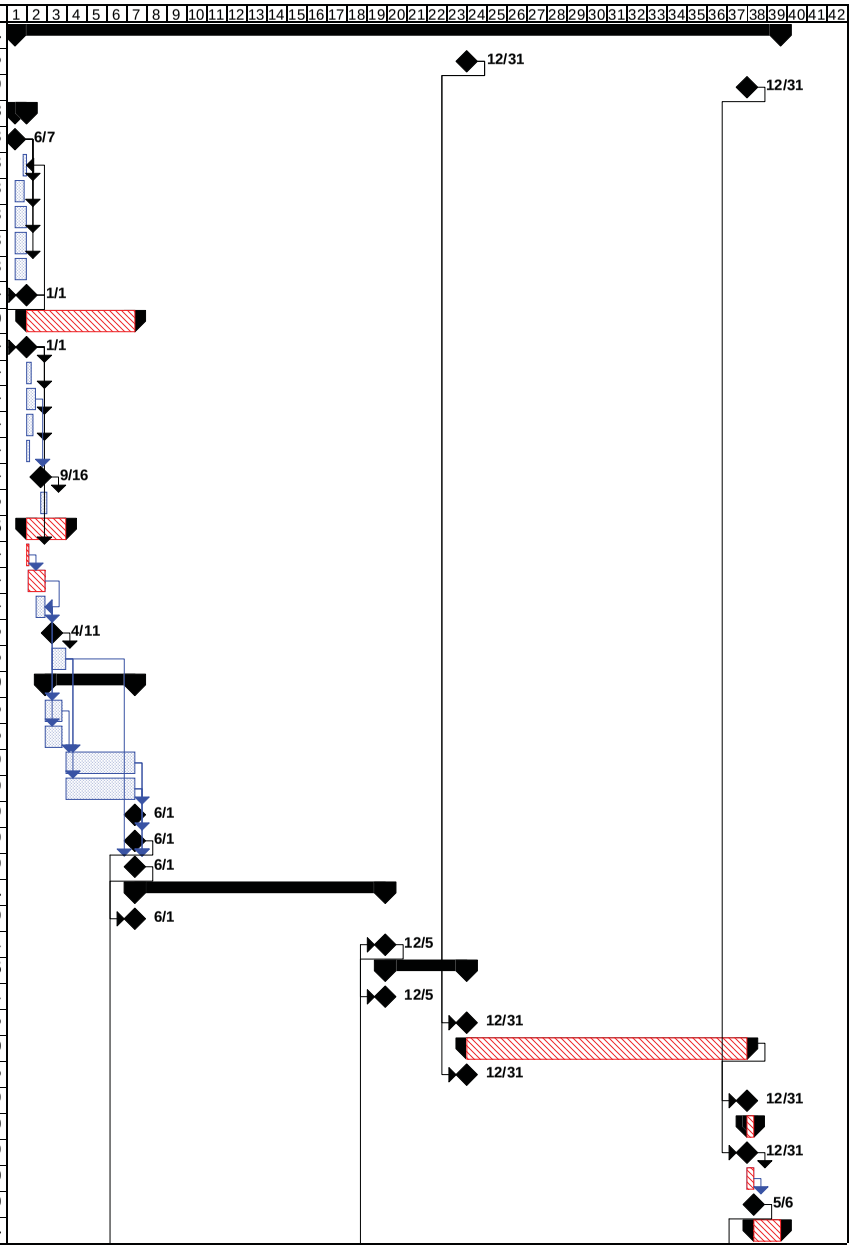
Detailed Project Schedule

SONGS 2 & 3

Detailed Project Schedule

Prompt DECON, DOE Repository Opens 2024

ID	Task Name	Duration	Start	Finish
1	**Post-Shutdown Spent Fuel Management**	**9982 days**	**06/07/2013**	**09/08/2051**
2	Spent Fuel Shipping Complete - Unit 1	0 days	12/31/2035	12/31/2035
3	Spent Fuel Shipping Complete - Units 2 & 3	0 days	12/31/2049	12/31/2049
4	**SNF Pd 1 - Spent Fuel Management Transition**	**149 days**	**06/07/2013**	**12/31/2013**
5	SNF Pd 1 Begins	0 days	06/07/2013	06/07/2013
6	Security Enhancements	45 days	10/31/2013	12/31/2013
7	Design and Fabricate Spent Fuel Canisters	120 days	06/07/2013	11/21/2013
8	Post Fukushima Modifications - Unit 2	148 days	06/07/2013	12/31/2013
9	Post Fukushima Modifications - Unit 3	148 days	06/07/2013	12/31/2013
10	Cyber Security Modifications	148 days	06/07/2013	12/31/2013
11	SNF Pd 1 Ends	0 days	01/01/2014	01/01/2014
12	**SNF Pd 2 - Spent Fuel Transfer to Dry Storage**	**1413 days**	**1/1/2014**	**06/01/2019**
13	SNF Pd 2 Begins	0 days	01/01/2014	01/01/2014
14	Security Enhancements	60 days	01/02/2014	03/26/2014
15	Prepare Irradiated Fuel Management Plan	118 days	01/02/2014	06/14/2014
16	Decay Heat Analysis	85 days	01/02/2014	04/30/2014
17	Zirconium Fire and Shine Analysis	42 days	01/02/2014	02/28/2014
18	Issue Irradiated Fuel Management Plan	0 days	09/16/2014	09/16/2014
19	NRC Review of Irradiated Fuel Management Plan	82 days	09/17/2014	01/08/2015
20	**ISFSI Expansion**	**513 days**	**01/02/2014**	**12/19/2015**
21	Select Dry Storage System Canister Design and Vendor	30 days	01/02/2014	02/12/2014
22	ISFSI Pad Study	220 days	02/03/2014	12/06/2014
23	Design ISFSI Expansion	120 days	06/24/2014	12/06/2014
24	ISFSI Permit Approved By California Coastal Commission	0 days	04/11/2015	04/11/2015
25	Construct ISFSI Expansion	180 days	04/14/2015	12/19/2015
26	**Canister Purchase, Fabrication and Fuel Tranfer**	**1170 days**	**12/09/2014**	**06/01/2019**
27	Purchase Spent Fuel Canisters and AHSMs - Unit 2	220 days	12/09/2014	10/10/2015
28	Purchase Spent Fuel Canisters and AHSMs - Unit 3	220 days	12/09/2014	10/10/2015
29	Load Spent Fuel Canisters and Transfer to ISFSI - Unit 2	900 days	12/22/2015	06/01/2019
30	Load Spent Fuel Canisters and Transfer to ISFSI - Unit 3	900 days	12/22/2015	06/01/2019
31	Unit 2 Spent Fuel Pool Empty	0 days	06/01/2019	06/01/2019
32	Unit 3 Spent Fuel Pool Empty	0 days	06/01/2019	06/01/2019
33	SNF Pd 2 Ends	0 days	06/01/2019	06/01/2019
34	**SNF Pd 3 - Dry Storage During Decommissioning - Units 1, 2 and 3**	**3265 days**	**06/01/2019**	**12/05/2031**
35	SNF Pd 3 Begins	0 days	06/01/2019	06/01/2019
36	SNF Pd 3 Ends	0 days	12/05/2031	12/05/2031
37	**SNF Pd 4 - Dry Storage Only - Units 1, 2 and 3**	**1061 days**	**12/05/2031**	**12/31/2035**
38	SNF Pd 4 Begins	0 days	12/05/2031	12/05/2031
39	SNF Pd 4 Ends	0 days	12/31/2035	12/31/2035
40	**SNF Pd 5 - Dry Storage Only - Units 2 and 3**	**3654 days**	**12/31/2035**	**12/31/2049**
41	SNF Pd 5 Begins	0 days	12/31/2035	12/31/2035
42	SNF Pd 5 Ends	0 days	12/31/2049	12/31/2049
43	**SNF D&D Pd 1 - ISFSI D&D Planning**	**90 days**	**12/31/2049**	**05/06/2050**
44	SNF D&D Pd 1 Begins	0 days	12/31/2049	12/31/2049
45	Preparation and NRC Review of License Termination Plan	90 days	01/01/2050	05/06/2050
46	SNF D&D Pd 1 Ends	0 days	05/06/2050	05/06/2050
47	**SNF D&D Pd 2 - ISFSI D&D**	**350 days**	**05/06/2050**	**09/08/2051**

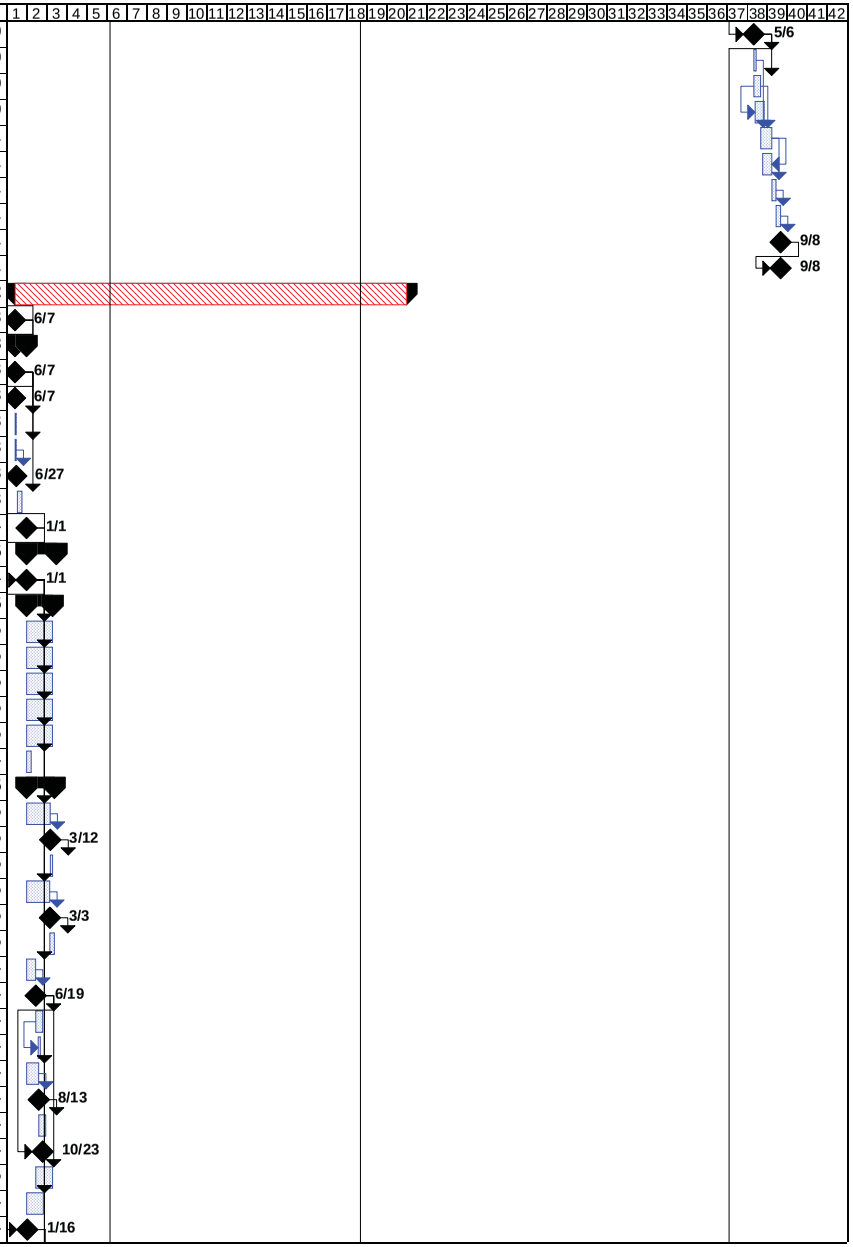


SONGS 2 & 3

Detailed Project Schedule

Prompt DECON, DOE Repository Opens 2024

ID	Task Name	Duration	Start	Finish
48	SNF D&D Pd 2 Begins	0 days	05/06/2050	05/06/2050
49	Install GARDIAN Bulk Assay System	30 days	05/07/2050	06/17/2050
50	Decon AHSMs	90 days	05/07/2050	09/09/2050
51	Final Status Survey of ISFSI	120 days	05/28/2050	11/11/2050
52	Clean Demolition of ISFSI AHSMs and Pad	145 days	09/10/2050	03/31/2051
53	Clean Demolition of ISFSI Support Structures	120 days	10/15/2050	03/31/2051
54	Restore ISFSI Site	55 days	04/01/2051	06/16/2051
55	Preparation of Final Report on Decommissioning and NRC Review	60 days	06/17/2051	09/08/2051
56	SNF D&D Pd 2 Ends - License Termination Complete	0 days	09/08/2051	09/08/2051
57	Post-Shutdown Spent Fuel Management Complete	0 days	09/08/2051	09/08/2051
58	**Part 50 License Termination**	**5102 days**	**06/07/2013**	**12/24/2032**
59	Announcement of Cessation of Operations (June 7, 2013)	0 days	06/07/2013	06/07/2013
60	**Decon Pd 1 - Transition to Decommissioning**	**149 days**	**06/07/2013**	**12/31/2013**
61	Decon Pd 1 Begins	0 days	06/07/2013	06/07/2013
62	Certification of Permanent Cessation Submitted to NRC (June 12, 2013)	0 days	06/07/2013	06/07/2013
63	Defuel Unit 3 Reactor	15 days	06/07/2013	06/27/2013
64	Defuel Unit 2 Reactor	15 days	06/07/2013	06/27/2013
65	Notification of Permanent Fuel Removal (July 23, 2013)	0 days	06/27/2013	06/27/2013
66	Disposition of Legacy Wastes	60 days	07/19/2013	10/10/2013
67	Decon Pd 1 Ends	0 days	01/01/2014	01/01/2014
68	**Decon Pd 2 - Decommissioning Planning and Site Modifications**	**389 days**	**1/1/2014**	**06/30/2015**
69	Decon Pd 2 Begins	0 wks	01/01/2014	01/01/2014
70	**Preparation of Decommissioning License Documents**	**340 days**	**01/02/2014**	**04/22/2015**
71	Develop Certified Fuel Handler Program	340 days	01/02/2014	04/22/2015
72	Prepare Post-Shutdown QA Plan	340 days	01/02/2014	04/22/2015
73	Prepare Post-Shutdown Security Plan	340 days	01/02/2014	04/22/2015
74	Prepare Post-Shutdown Fire Protection Plan	340 days	01/02/2014	04/22/2015
75	Prepare Defueled Radiation Protection Manual	340 days	01/02/2014	04/22/2015
76	Prepare Preliminary Defueled Technical Specifications	63 days	01/02/2014	03/29/2014
77	**NRC Deliverables**	**364 days**	**01/02/2014**	**05/26/2015**
78	Prepare Defueled Safety Analysis Report (DSAR)	311 days	01/02/2014	03/12/2015
79	Submit DSAR to NRC	0 days	03/12/2015	03/12/2015
80	Implement Technical Specification Modifications	30 days	03/13/2015	04/23/2015
81	Prepare Post-Shutdown Emergency Preparedness Plan	304 days	01/02/2014	03/03/2015
82	Submit Emergency Plan to NRC	0 days	03/03/2015	03/03/2015
83	NRC Review of Emergency Plan	60 days	03/04/2015	05/26/2015
84	Prepare Post-Shutdown Decommissioning Activities Report (PSDAR)	121 days	01/02/2014	06/19/2014
85	Submit PSDAR to NRC	0 days	06/19/2014	06/19/2014
86	NRC Review of PSDAR	90 days	06/20/2014	10/23/2014
87	Public Meeting on PSDAR	30 days	08/01/2014	09/11/2014
88	Prepare Decommissioning Cost Estimate (DCE)	160 days	01/02/2014	08/13/2014
89	Submit DCE to NRC	0 days	08/13/2014	08/13/2014
90	NRC Review of Decommissioning Cost Estimate	90 days	08/14/2014	12/17/2014
91	Commencement of Major Decommisisoning Activities Allowable	0 days	10/23/2014	10/23/2014
92	Respond to NRC quesitons on PSDAR	220 days	06/20/2014	04/23/2015
93	Disposition of Legacy Wastes	220 days	01/02/2014	11/05/2014
94	Contract Award for Historic Site Assessment and Site Characterization	0 wks	01/16/2014	01/16/2014

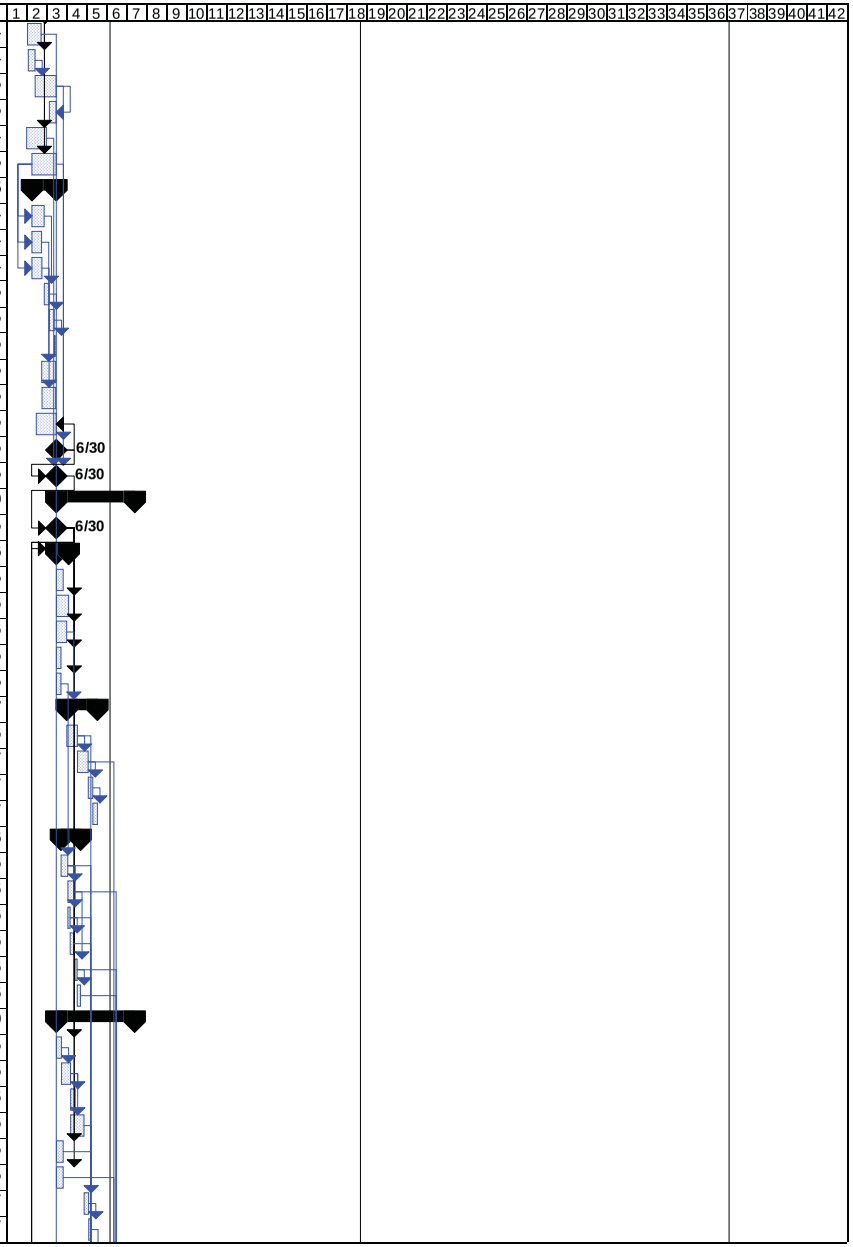


SONGS 2 & 3

Detailed Project Schedule

Prompt DECON, DOE Repository Opens 2024

ID	Task Name	Duration	Start	Finish
95	Perform Historic Site Assessment and Site Characterization	180 days	01/17/2014	09/25/2014
96	Planning and Design For Cold and Dark	90 days	02/01/2014	06/06/2014
97	Implement Cold and Dark (Repower Site)	275 days	06/07/2014	06/26/2015
98	Install 12kV Service Line to Power Temporary Power Ring	90 days	02/21/2015	06/26/2015
99	Drain and De-Energize Non-Essential Systems (DEC Process)	260 days	01/02/2014	12/31/2014
100	Select Decommissioning General Contractor (DGC)	318 days	04/11/2014	06/30/2015
101	**Spent Fuel Pool Isolation**	**318 days**	**04/11/2014**	**06/30/2015**
102	Design Spent Fuel Pool Support System Modifications	160 days	04/11/2014	11/20/2014
103	Design Control Room Relocation	125 days	04/11/2014	10/02/2014
104	Design Spent Fuel Security System Modifications	130 days	04/11/2014	10/09/2014
105	Install Spent Fuel Pool System Modifications - Unit 2	66 days	11/21/2014	02/20/2015
106	Install Spent Fuel Pool System Modifications - Unit 3	66 days	02/21/2015	05/23/2015
107	Spent Fuel Pool Island System Training	10 days	05/26/2015	06/06/2015
108	Implement Control Room Modifications	185 days	10/03/2014	06/18/2015
109	Implement Spent Fuel Pool Security Modifications	180 days	10/10/2014	06/18/2015
110	Transition Project Modifictations	262 days	06/28/2014	06/30/2015
111	DGC Contract Award	0 days	06/30/2015	06/30/2015
112	Decon Pd 2 Ends	0 wks	06/30/2015	06/30/2015
113	**Decon Pd 3 - Decommissioning Preparations and Reactor Internals Segmenta**	**1024 days**	**06/30/2015**	**06/01/2019**
114	Decon Pd 3 Begins	0 days	06/30/2015	06/30/2015
115	**DGC Mobilization and Planning**	**160 days**	**07/01/2015**	**02/09/2016**
116	Prepare Integrated Work Sequence and Schedule for Decommissioning	90 days	07/01/2015	11/03/2015
117	Prepare Detailed Work Procedures for Decommissioning	160 days	07/01/2015	02/09/2016
118	Planning and Design of Primary System Decontamination	135 days	07/01/2015	01/05/2016
119	Planning and Design of Infrastructure Improvements	60 days	07/01/2015	09/22/2015
120	Design Containment Access Modifications	60 days	07/01/2015	09/22/2015
121	**System Decon**	**400 days**	**01/06/2016**	**07/18/2017**
122	Perform Primary System Decon- Unit 2	140 days	01/06/2016	07/19/2016
123	Perform Primary System Decon- Unit 3	140 days	07/20/2016	01/31/2017
124	Hot Spot Decontamination - Unit 2	60 days	02/01/2017	04/25/2017
125	Hot Spot Decontamination - Unit 3	60 days	04/26/2017	07/18/2017
126	**Rx Internals Removal Preparations**	**255 days**	**09/23/2015**	**09/13/2016**
127	Modify Containment Access- Unit 2	90 days	09/23/2015	01/26/2016
128	Modify Containment Access- Unit 3	90 days	01/27/2016	05/31/2016
129	Remove and Dispose of Missle Shields - Unit 2	30 days	01/27/2016	03/08/2016
130	Remove and Dispose of Reactor Head - Unit 2	45 days	03/09/2016	05/10/2016
131	Remove and Dispose of Missle Shields - Unit 3	30 days	06/01/2016	07/12/2016
132	Remove and Dispose of Reactor Head - Unit 3	45 days	07/13/2016	09/13/2016
133	**Reactor Internals Segmentation Planning and Implementation**	**1020 days**	**07/01/2015**	**05/28/2019**
134	Finalize Residual Radiation Inventory (Rx Vessel & Internals)	65 days	07/01/2015	09/29/2015
135	Prepare Activity Specification for Rx Vessel and Internals Segmentation	120 days	09/30/2015	03/15/2016
136	Select Shipping Casks and Obtain Shipping Permits	60 days	03/16/2016	06/07/2016
137	Design, Specify, and Procure Special Items and Materials	175 days	03/16/2016	11/15/2016
138	Purchase Dry Storage Modules for GTCC Waste - Unit 2	90 days	07/01/2015	11/03/2015
139	Purchase Dry Storage Modules for GTCC Waste - Unit 3	90 days	07/01/2015	11/03/2015
140	Test Special Cutting and Handling Equipment and Train Operators	60 days	11/16/2016	02/07/2017
141	Finalize Internals and Vessel Segmenting Details - Unit 2	30 days	02/08/2017	03/21/2017

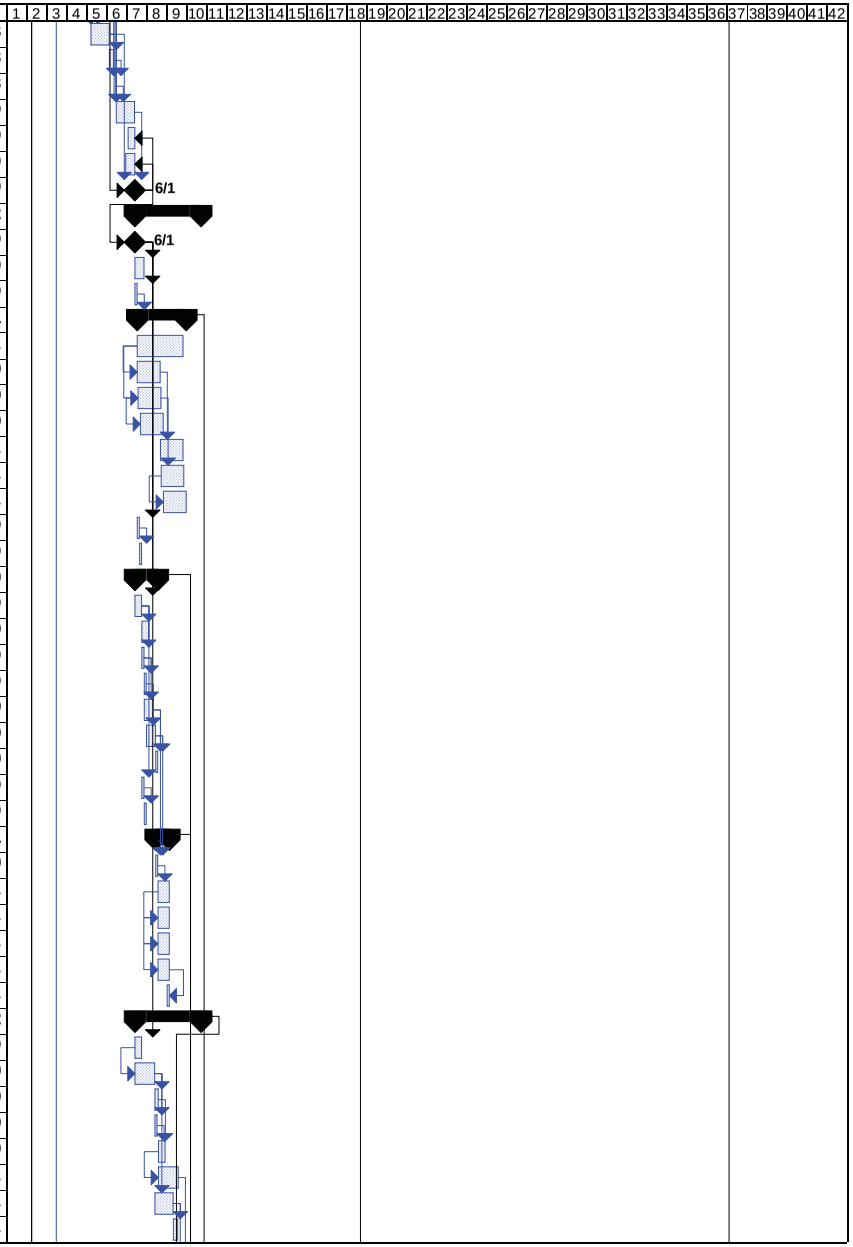


SONGS 2 & 3

Detailed Project Schedule

Prompt DECON, DOE Repository Opens 2024

ID	Task Name	Duration	Start	Finish
142	Segment, Package and Dispose of Reactor Internals - Unit 2	240 days	03/22/2017	02/20/2018
143	Transfer Internals Segmentation Equipment to Unit 3	60 days	02/21/2018	05/15/2018
144	Finalize Internals and Vessel Segmenting Details - Unit 3	30 days	05/16/2018	06/26/2018
145	Segment, Package and Dispose of Reactor Internals - Unit 3	240 days	06/27/2018	05/28/2019
146	Construct new change rooms, hot laundry, in-plant laydown areas	90 days	01/29/2019	06/01/2019
147	Procure Non-Engineered Standard Equipment	120 days	12/18/2018	06/01/2019
148	Decon Pd 3 Ends	0 wks	06/01/2019	06/01/2019
149	**Decon Pd 4 - Plant Systems and Large Component Removal**	**865 days**	**06/01/2019**	**09/24/2022**
150	Decon Pd 4 Begins	0 days	06/01/2019	06/01/2019
151	Upgrade Rail Spur	120 days	06/04/2019	11/16/2019
152	Install GARDIAN Bulk Assay System	30 days	06/04/2019	07/13/2019
153	**Non Essential System Removal**	**640 days**	**07/16/2019**	**12/25/2021**
154	Scaffolding for Non-Essential System Removal	120 wks	07/16/2019	10/30/2021
155	Asbestos Abatement for Non-Essential Systems Removal - Unit 2	60 wks	07/16/2019	09/05/2020
156	Lead Abatement for Non-Essential Systems Removal - Unit 2	60 wks	07/30/2019	09/19/2020
157	Remove, Package and Dispose of Non-Essential Systems - Unit 2	60 wks	09/10/2019	10/31/2020
158	Asbestos Abatement for Non-Essential Systems - Unit 3	60 wks	09/08/2020	10/30/2021
159	Lead Abatement for Non-Essential Systems - Unit 3	60 wks	09/22/2020	11/13/2021
160	Remove, Package and Dispose of Non-Essential Systems - Unit 3	60 wks	11/03/2020	12/25/2021
161	Remove Underground Diesel Tank - Unit 2	30 days	07/16/2019	08/24/2019
162	Remove Underground Diesel Tank - Unit 3	30 days	08/27/2019	10/05/2019
163	**Fuel Pool Closure**	**300 days**	**06/04/2019**	**07/25/2020**
164	Remove and Dispose of Spent Fuel Storage Racks - Unit 2	90 days	06/04/2019	10/05/2019
165	Remove and Dispose of Spent Fuel Storage Racks - Unit 3	90 days	10/08/2019	02/08/2020
166	Remove and Dispose of Legacy Class B and C Waste - Unit 2	30 days	10/08/2019	11/16/2019
167	Remove and Dispose of Legacy Class B and C Waste - Unit 3	30 days	11/19/2019	12/28/2019
168	Drain Spent Fuel Pool and Process Liquid Waste - Unit 2	24 wks	11/19/2019	05/02/2020
169	Drain Spent Fuel Pool and Process Liquid Waste - Unit 3	24 wks	12/31/2019	06/13/2020
170	Segment, Package and Dispose of Spent Fuel Pool Island Equipment	30 days	06/16/2020	07/25/2020
171	Segment and Dispose of Fuel Pool Bridge Crane - Unit 2	30 days	10/08/2019	11/16/2019
172	Segment and Dispose of Fuel Pool Bridge Crane - Unit 3	30 days	11/19/2019	12/28/2019
173	**Essential Systems Removal**	**180 days**	**06/16/2020**	**02/20/2021**
174	Flush and Drain Essential Systems Following Fuel Pool Closure	30 days	06/16/2020	07/25/2020
175	Scaffolding for Essential System Removal	30 wks	07/28/2020	02/20/2021
176	Asbestos Abatement for Essential Systems	30 wks	07/28/2020	02/20/2021
177	Lead Abatement for Essential Systems Removal	30 wks	07/28/2020	02/20/2021
178	Remove, Package and Dispose of Essential Systems	30 wks	07/28/2020	02/20/2021
179	Removal and Disposal of Spent Resins, Filter Media and Tank Sludge	30 days	01/12/2021	02/20/2021
180	**Large Component Removal**	**865 days**	**06/04/2019**	**09/24/2022**
181	Reactor Vessel Insulation Removal and Disposal - Unit 2	90 days	06/04/2019	10/05/2019
182	Segment, Package and Dispose of Reactor Pressure Vessel - Unit 2	260 days	06/04/2019	05/30/2020
183	Transfer Rx Vessel Segmentation Equipment to Unit 3	45 days	06/02/2020	08/01/2020
184	Procure Replacement Non-Engineered Standard Equipment	30 days	06/02/2020	07/11/2020
185	Reactor Vessel Insulation Removal and Disposal - Unit 3	90 days	08/04/2020	12/05/2020
186	Segment, Package and Dispose of Reactor Pressure Vessel - Unit 3	260 days	08/04/2020	07/31/2021
187	Remove and Dispose of Steam Generators - Unit 2	240 days	06/02/2020	05/01/2021
188	Remove and Dispose of Pressurizer - Unit 2	60 days	05/04/2021	07/24/2021



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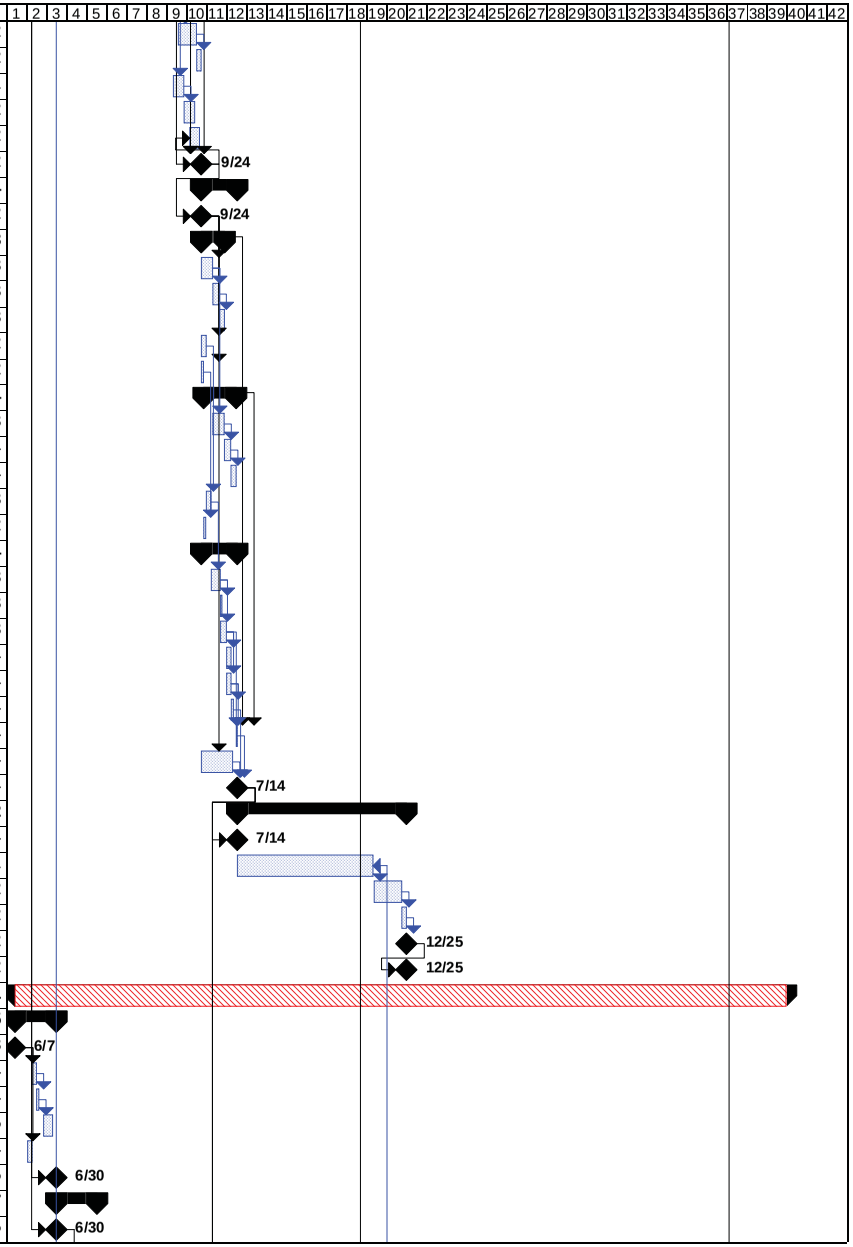
Detailed Project Schedule

Prompt DECON, DOE Repository Opens 2024

ID	Task Name	Duration	Start	Finish
189	Remove and Dispose of Steam Generators - Unit 3	240 days	08/03/2021	07/02/2022
190	Remove and Dispose of Pressurizer - Unit 3	60 days	07/05/2022	09/24/2022
191	Remove and Dispose of Turbine Gantry Crane - Unit 2	140 days	05/04/2021	11/13/2021
192	Remove and Dispose of Turbine Gantry Crane - Unit 3	140 days	11/16/2021	05/28/2022
193	Prepare License Termination Plan	26 wks	03/01/2022	08/27/2022
194	Decon Pd 4 Ends	0 days	09/24/2022	09/24/2022
195	**Decon Pd 5 - Building Decontamination**	**470 days**	**09/24/2022**	**07/13/2024**
196	Decon Pd 5 Begins	0 days	09/24/2022	09/24/2022
197	**Unit 3**	**305 days**	**09/27/2022**	**11/25/2023**
198	Decon Containment Building - Unit 3	150 days	09/27/2022	04/22/2023
199	Decon Penetration Building - Unit 3	85 days	04/25/2023	08/19/2023
200	Decon Safety Equipment and MSIV Building - Unit 3	70 days	08/22/2023	11/25/2023
201	Decon Fuel Handling Building - Unit 3	65 days	09/27/2022	12/24/2022
202	Decon Turbine Building - Unit 3	30 days	09/27/2022	11/05/2022
203	**Unit 2**	**425 days**	**11/08/2022**	**06/22/2024**
204	Decon Containment Building - Unit 2	150 days	04/25/2023	11/18/2023
205	Decon Penetration Building - Unit 2	85 days	11/21/2023	03/16/2024
206	Decon Safety Equipment and MSIV Building - Unit 2	70 days	03/19/2024	06/22/2024
207	Decon Fuel Handling Building - Unit 2	65 days	12/27/2022	03/25/2023
208	Decon Turbine Building - Unit 2	30 days	11/08/2022	12/17/2022
209	**Common**	**470 days**	**09/27/2022**	**07/13/2024**
210	Decon Auxiliary Radwaste Building - Common	120 days	03/28/2023	09/09/2023
211	Decon Auxiliary Control Building - Common	20 days	09/12/2023	10/07/2023
212	Decon Condensate Area and Tunnels - Units 2 and 3	80 days	09/12/2023	12/30/2023
213	Excavate, Remove and Dispose of Yard Area Drains	60 days	01/02/2024	03/23/2024
214	Remove and Dispose of Contaminated Sumps, Trenches and Pavement	60 days	01/02/2024	03/23/2024
215	Remove and Dispose of Radiologically Contaminated Soil	30 days	03/26/2024	05/04/2024
216	Dispose of Contaminated Decon Equipment and Tooling	15 days	06/25/2024	07/13/2024
217	Radiological Survey of Structures During Decon	410 days	09/27/2022	04/20/2024
218	Decon Pd 5 Ends	0 days	07/13/2024	07/13/2024
219	**Decon Pd 6 - License Termination During Demolition**	**2206 days**	**07/13/2024**	**12/24/2032**
220	Decon Pd 6 Begins	0 days	07/13/2024	07/13/2024
221	Final Status Survey	1771 days	07/13/2024	04/25/2031
222	ORISE Verification and NRC Approval	18 mons	05/17/2031	10/01/2032
223	Prepare Final Report of Dismantling Program	60 days	10/02/2032	12/24/2032
224	Decon Complete - Partial License Termination	0 days	12/24/2032	12/24/2032
225	Decon Pd 6 Ends	0 days	12/24/2032	12/24/2032
226	**Site Restoration**	**10052 days**	**06/07/2013**	**12/15/2051**
227	**SR Pd 1 - Transition to Site Restoration**	**538 days**	**06/07/2013**	**06/30/2015**
228	SR Pd 1 Begins	0 days	06/07/2013	06/07/2013
229	Mesa Site Phase I and II Site Assessment	60 days	04/11/2014	07/03/2014
230	Disposition Hazardous Waste from Mesa Site	30 days	07/04/2014	08/14/2014
231	Mesa Site Characterization Survey	120 days	11/07/2014	04/23/2015
232	Fuel Cancellation Expense	60 days	01/21/2014	04/12/2014
233	SR Pd 1 Ends	0 days	06/30/2015	06/30/2015
234	**SR Pd 2 - Building Demolition During Decommissioning**	**530 days**	**06/30/2015**	**07/11/2017**
235	SR Pd 2 Begins	0 days	06/30/2015	06/30/2015



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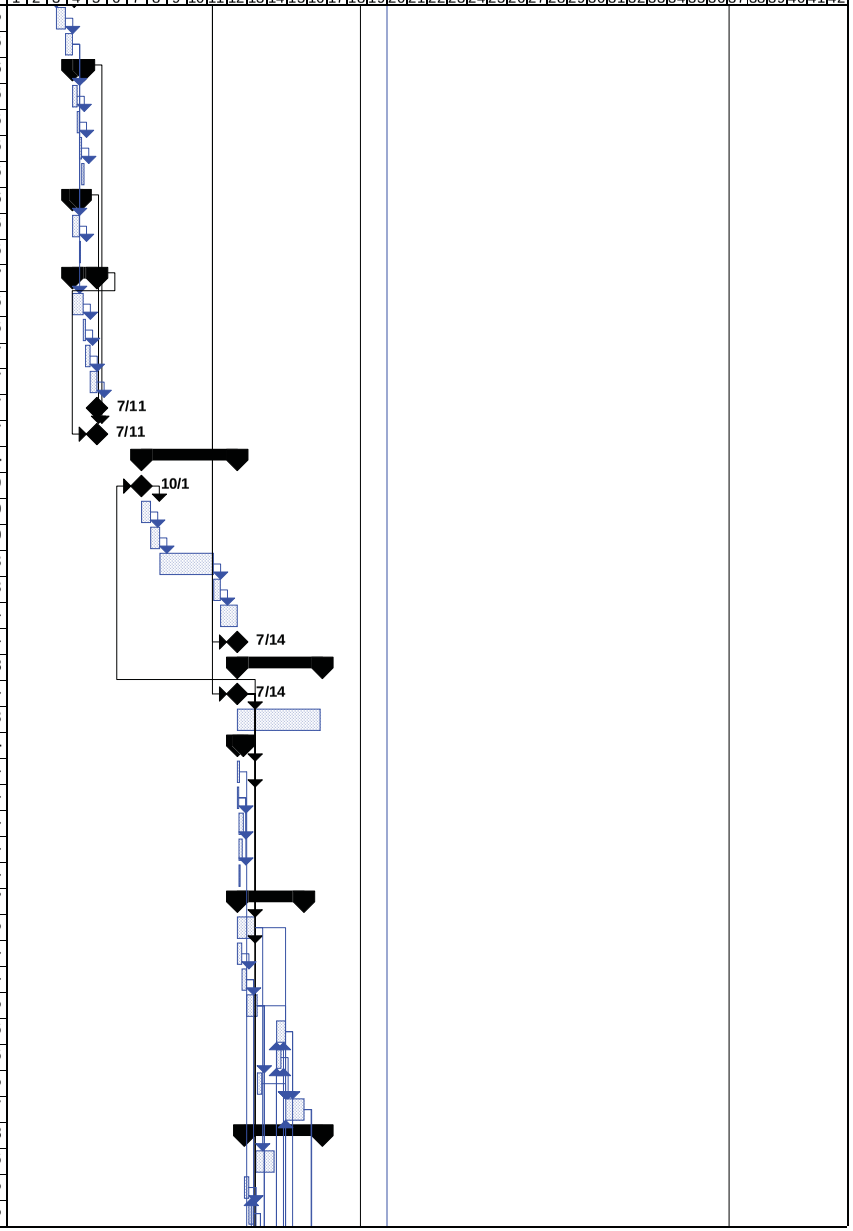
Detailed Project Schedule

Prompt DECON, DOE Repository Opens 2024

ID	Task Name	Duration	Start	Finish
236	Prepare Site Restoration Demolition Plan and Schedule	120 days	07/01/2015	12/15/2015
237	Obtain Required Permits For Mesa, South Access and South Yard	90 days	12/16/2015	04/19/2016
238	**South Access for Decommissioning**	**150 days**	**04/20/2016**	**11/15/2016**
239	Demolish Service Building (K-10, 20, 30)	60 days	04/20/2016	07/12/2016
240	Demolish South Security Processing Facility (K-70)	30 days	07/13/2016	08/23/2016
241	Demolish Staging Warehouse	30 days	08/24/2016	10/04/2016
242	Demolish Administration Building (K-40/50)	30 days	10/05/2016	11/15/2016
243	**South Yard Facility**	**105 days**	**04/20/2016**	**09/13/2016**
244	Demolish South Yard Area Buildings T-10, 20, 60 and Haz Mat.	90 days	04/20/2016	08/23/2016
245	Demolish REMS Staging Pad	15 days	08/24/2016	09/13/2016
246	**Mesa**	**320 days**	**04/20/2016**	**07/11/2017**
247	Demolish Mesa Buildings	140 days	04/20/2016	11/01/2016
248	Remove Underground Fuel Storage Tanks	30 days	11/02/2016	12/13/2016
249	Demolish Mesa Roads and Parking Lots	60 days	12/14/2016	03/07/2017
250	Finish Grading and Re-vegetate Mesa Site	90 days	03/08/2017	07/11/2017
251	Mesa Area Cleared for Easement Termination	0 days	07/11/2017	07/11/2017
252	SR Pd 2 Ends	0 days	07/11/2017	07/11/2017
253	**SR Pd 3 - Subsurface Demolition Engineering and Permitting**	**1250 days**	**10/01/2019**	**07/13/2024**
254	SR Pd 3 Begins	0 days	10/01/2019	10/01/2019
255	Hydrogeologic Investigation and Outfall Conduit Survey	120 days	10/01/2019	03/14/2020
256	Subsurface Structure Removal Engineering Planning and Design	120 days	03/17/2020	08/29/2020
257	Environmental Impacts Analyses for Lease Termination Activities	700 days	09/01/2020	05/06/2023
258	Final Site Grading and Shoreline Protection Engineering Planning and Design	90 days	05/09/2023	09/09/2023
259	Obtain Required Permits and Approvals	220 days	09/12/2023	07/13/2024
260	SR Pd 3 Ends	0 days	07/13/2024	07/13/2024
261	**SR Pd 4 - Building Demolition to 3 Feet Below Grade**	**1110 days**	**07/13/2024**	**10/14/2028**
262	SR Pd 4 Begins	0 days	07/13/2024	07/13/2024
263	Procure Building Demolition Equipment	1080 days	07/16/2024	09/02/2028
264	**Demolition Preparations**	**80 days**	**07/16/2024**	**11/02/2024**
265	Install Temporary Structures	30 days	07/16/2024	08/24/2024
266	Install Erosion and Sediment Controls	20 days	07/16/2024	08/10/2024
267	Remove Cathodic Protection Trench	60 days	08/13/2024	11/02/2024
268	Remove Protected Area Security Fencing	45 days	08/13/2024	10/12/2024
269	Remove Protected Area Pavement	20 days	08/13/2024	09/07/2024
270	**Unit 3**	**870 days**	**07/16/2024**	**11/13/2027**
271	Detension and Remove Unit 3 Containment Builidng Tendons	240 days	07/16/2024	06/14/2025
272	Demolish Diesel Generator Building - Unit 3	60 days	07/16/2024	10/05/2024
273	Demolish Condensate Building and Transformer Pads - Unit 3	60 days	10/08/2024	12/28/2024
274	Demolish Full Flow Area and Turbine Building - Unit 3	140 days	12/31/2024	07/12/2025
275	Demolish Unit 3 Fuel Handling Building to 3-Feet Below Grade	120 days	06/30/2026	12/12/2026
276	Demolish Penetration Building - Unit 3	60 days	06/30/2026	09/19/2026
277	Demolish Safety Equipmentand MSIV Building - Unit 3	60 days	07/15/2025	10/04/2025
278	Demolish Unit 3 Containment Building to 3-Feet Below Grade	240 days	12/15/2026	11/13/2027
279	**Unit 2**	**1020 days**	**11/19/2024**	**10/14/2028**
280	Detension and Remove Unit 2 Containment Builidng Tendons	240 days	06/17/2025	05/16/2026
281	Demolish Diesel Generator Building - Unit 2	60 days	11/19/2024	02/08/2025
282	Demolish Condensate Building and Transformer Pads - Unit 2	60 days	02/11/2025	05/03/2025



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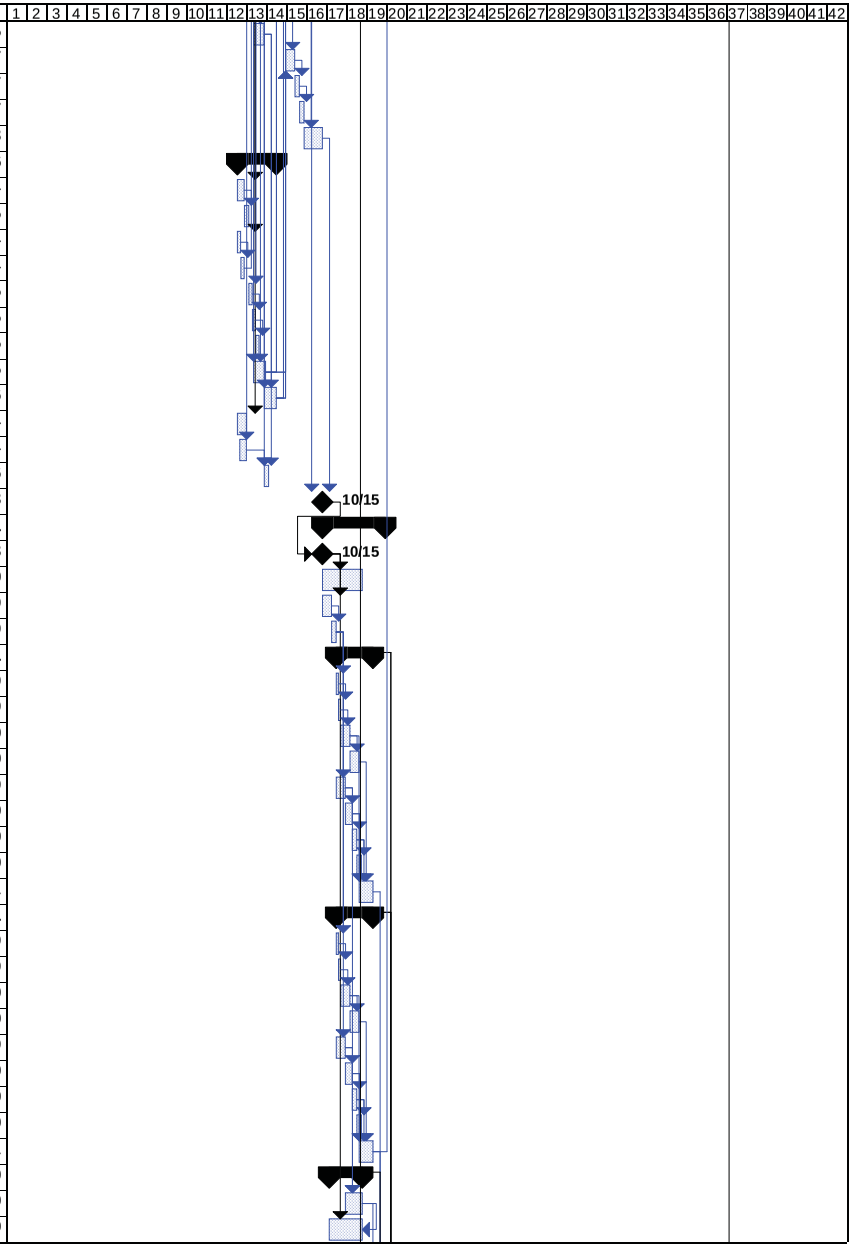
Detailed Project Schedule

Prompt DECON, DOE Repository Opens 2024

ID	Task Name	Duration	Start	Finish
283	Demolish Full Flow Area and Turbine Building - Unit 2	140 days	05/06/2025	11/15/2025
284	Demolish Unit 2 Fuel Handling Building to 3-Feet Below Grade	120 days	12/15/2026	05/29/2027
285	Demolish Penetration Building - Unit 2	60 days	06/01/2027	08/21/2027
286	Demolish Safety Equipment and MSIV Building - Unit 2	60 days	08/24/2027	11/13/2027
287	Demolish Unit 2 Containment Building to 3-Feet Below Grade	240 days	11/16/2027	10/14/2028
288	**Common**	**510 days**	**07/16/2024**	**06/27/2026**
289	Demolish AWS Building	90 days	07/16/2024	11/16/2024
290	Demolish Building L-50	60 days	11/19/2024	02/08/2025
291	Demolish Building B-64/B-65	45 days	07/16/2024	09/14/2024
292	Demolish Building B-62/B-63	45 days	09/17/2024	11/16/2024
293	Demolish Outage Control Center	45 days	02/11/2025	04/12/2025
294	Demolish Building B-49/B-50	45 days	04/15/2025	06/14/2025
295	Demolish Building B-43/B-44	45 days	06/17/2025	08/16/2025
296	Demolish Auxiliary Radwaste Building - Common	160 days	05/06/2025	12/13/2025
297	Demolish Auxiliary Control Building - Common	160 days	11/18/2025	06/27/2026
298	Remove Systems and Demolish Make-Up Demineralizer Structures	120 days	07/16/2024	12/28/2024
299	Install Concrete Plugs in Intake and Discharge Structures	90 days	08/27/2024	12/28/2024
300	Demolish Intake and Discharge Structures to 3-Feet Below Grade	60 days	11/18/2025	02/07/2026
301	SR Pd 4 Ends	0 days	10/14/2028	10/14/2028
302	**SR Pd 5 - Subgrade Structure Removal Below -3 Feet**	**820 days**	**10/14/2028**	**12/05/2031**
303	SR Pd 5 Begins	0 days	10/14/2028	10/14/2028
304	Procure Subsurface Structure Demolition Equipment	520 days	10/17/2028	10/11/2030
305	Install Sheet Piling and Excavation Shoring	120 days	10/17/2028	03/31/2029
306	Install Dewatering System and Effluent Treatment and Discharge Controls	60 days	04/01/2029	06/22/2029
307	**Unit 3 Subsurface Structures**	**480 days**	**06/23/2029**	**04/25/2031**
308	Demolish and Backfill Unit 3 Condensate Storage Area Below -3 Feet	30 days	06/23/2029	08/03/2029
309	Demolish and Backfill Unit 3 Diesel Generator Builidng Below -3 Feet	30 days	08/04/2029	09/14/2029
310	Demolish and Backfill Unit 3 Fuel Handling Building Below -3 Feet	120 days	09/15/2029	03/01/2030
311	Demolish and Backfill Unit 3 Radwaste Building Below -3 Feet	120 days	03/02/2030	08/16/2030
312	Demolish and Backfill Unit 3 Turbine Building Structure Below 9 Ft Elevatior	120 days	06/23/2029	12/07/2029
313	Demolish and Backfill Unit 3 Safety Equipment Building Below -3 Feet	90 days	12/08/2029	04/12/2030
314	Demolish and Backfill Unit 3 Penetration Area Below -3 Feet	60 days	04/13/2030	07/05/2030
315	Demolish and Backfill Unit 3 Full Flow Building Below -3 Feet	60 days	07/06/2030	09/27/2030
316	Demolish and Backfill Unit 3 Containment Building Below -3 Feet	180 days	08/17/2030	04/25/2031
317	**Unit 2 Subsurface Structures**	**480 days**	**06/23/2029**	**04/25/2031**
318	Demolish and Backfill Unit 2 Condensate Storage Area Below -3 Feet	30 days	06/23/2029	08/03/2029
319	Demolish and Backfill Unit 2 Diesel Generator Builidng Below -3 Feet	30 days	08/04/2029	09/14/2029
320	Demolish and Backfill Unit 2 Fuel Handling Building Below -3 Feet	120 days	09/15/2029	03/01/2030
321	Demolish and Backfill Unit 2 Radwaste Building Below -3 Feet	120 days	03/02/2030	08/16/2030
322	Demolish and Backfill Unit 2 Turbine Building Structure Below 9 Ft Elevatior	120 days	06/23/2029	12/07/2029
323	Demolish and Backfill Unit 2 Safety Equipment Building Below -3 Feet	90 days	12/08/2029	04/12/2030
324	Demolish and Backfill Unit 2 Penetration Area Below -3 Feet	60 days	04/13/2030	07/05/2030
325	Demolish and Backfill Unit 2 Full Flow Building Below -3 Feet	60 days	07/06/2030	09/27/2030
326	Demolish and Backfill Unit 2 Containment Building Below -3 Feet	180 days	08/17/2030	04/25/2031
327	**Common Subgrade Structures**	**432 days**	**02/16/2029**	**10/11/2030**
328	Demolish and Backfill Intake Structure Inside Seawall Below -3 Feet	220 days	12/08/2029	10/11/2030
329	Remove Off Shore Intake and Outfall Conduits	432 days	02/16/2029	10/11/2030



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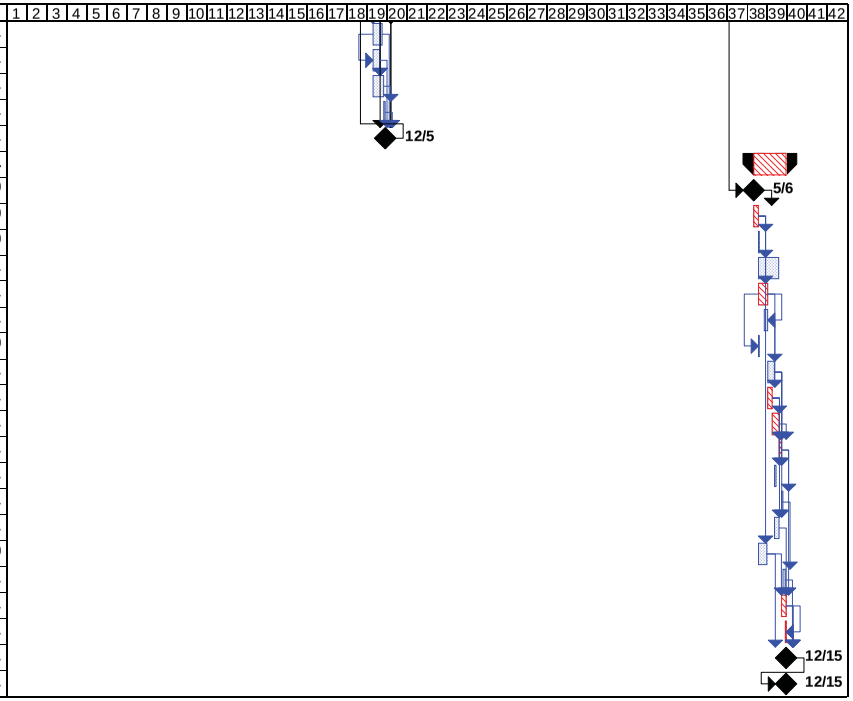
Detailed Project Schedule

Prompt DECON, DOE Repository Opens 2024

ID	Task Name	Duration	Start	Finish
330	Remove Sheet Piling and Excavation Shoring	120 days	04/26/2031	10/10/2031
331	Remove Dewatering System and Effluent Treatment	90 days	04/26/2031	08/29/2031
332	Finish Grading and Re-Vegetate Site	140 days	04/26/2031	11/07/2031
333	Remove Temporary Structures	20 days	11/08/2031	12/05/2031
334	SR Pd 5 Ends	0 days	12/05/2031	12/05/2031
335	**SR Pd 6 - Final Site Restoration and Lease Termination**	**420 days**	**05/06/2050**	**12/15/2051**
336	SR Pd 6 Begins	0 days	05/06/2050	05/06/2050
337	Obtain Required Permits and Approvals	60 days	05/07/2050	07/29/2050
338	Install Temporary Structures	10 days	07/30/2050	08/12/2050
339	Procure Site Restoration Equipment	265 days	07/30/2050	08/04/2051
340	Install Temporary Seawall or Coffer Dam	120 days	07/30/2050	01/13/2051
341	Install Dewatering System and Effluent Treatment and Discharge Controls	45 days	11/12/2050	01/13/2051
342	Remove and Stockpile Existing Seawall Erosion Protection	10 days	07/30/2050	08/12/2050
343	Remove Unit 2 and 3 Seawall and Pedestrian Walkway	90 days	01/14/2051	05/19/2051
344	Remove Remaining Intake and Outfall Box Culvert	60 days	01/14/2051	04/07/2051
345	Remove Temporary Seawall or Coffer Dam	90 days	04/08/2051	08/11/2051
346	Backfill and Compaction of Excavation	30 days	08/12/2051	09/22/2051
347	Remove Dewatering System and Effluent Treatment	20 days	05/20/2051	06/16/2051
348	Install Shoreline Erosion Control and Restoration Features	20 days	09/23/2051	10/20/2051
349	Remove Railroad Tracks, Rails and Ballast	60 days	05/20/2051	08/11/2051
350	Remove Gunite Slope Protection	110 days	07/30/2050	12/30/2050
351	Remove Access Roads and Parking Lots	30 days	10/21/2051	12/01/2051
352	Finish Grading and Re-Vegetate Site	60 days	09/23/2051	12/15/2051
353	Remove Temporary Structures	10 days	12/02/2051	12/15/2051
354	SR Pd 6 Ends	0 days	12/15/2051	12/15/2051
355	Final Easement Termination	0 days	12/15/2051	12/15/2051



Appendix D

Detailed Cost Table

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
A. License Termination							
Decon Pd 1	**Transition to Decommissioning**						
Distributed							
1.05	Disposition of Legacy Wastes	$0	$0	$9,153	$735	$0	$9,888
Distributed	**Subtotal**	**$0**	**$0**	**$9,153**	**$735**	**$0**	**$9,888**
Undistributed							
1.01	Utility Staff	$30,049	$0	$0	$0	$0	$30,049
1.05	Insurance	$0	$0	$0	$5,352	$0	$5,352
1.07	NRC Decommissioning Fees	$0	$0	$0	$1,349	$0	$1,349
1.08	Materials and Services	$0	$0	$0	$1,007	$0	$1,007
1.10	Energy	$0	$0	$0	$2,422	$0	$2,422
1.17	Association Fees and Expenses	$0	$0	$0	$315	$0	$315
1.18	Utilities (Water, gas, phone)	$0	$0	$0	$840	$0	$840
1.20	Non-Process Computers	$0	$0	$0	$224	$0	$224
1.21	Telecommunications	$0	$0	$0	$41	$0	$41
1.22	Personal Computers	$0	$0	$0	$9	$0	$9
1.24	Environmental Permits and Fees	$0	$0	$0	$818	$0	$818
Undistributed	**Subtotal**	**$30,049**	**$0**	**$0**	**$12,378**	**$0**	**$42,426**
Decon Pd 1	**Subtotal**	**$30,049**	**$0**	**$9,153**	**$13,113**	**$0**	**$52,315**

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2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
Decon Pd 2	**Decommissioning Planning and Site Modifications**						
Distributed							
2.01	Develop Certified Fuel Handler Program	$143	$1	$0	$0	$36	$180
2.02	Prepare Post-Shutdown QA Plan	$427	$1	$0	$0	$107	$535
2.03	Prepare Post-Shutdown Security Plan	$427	$1	$0	$0	$107	$535
2.04	Prepare Post-Shutdown Fire Protection Plan	$427	$1	$0	$0	$107	$535
2.05	Prepare Defueled Radiation Protection Manual	$427	$1	$0	$0	$107	$535
2.06	Prepare Preliminary Defueled Technical Specifications	$0	$0	$0	$135	$34	$169
2.07	Prepare Defueled Safety Analysis Report (DSAR)	$1,279	$5	$0	$0	$321	$1,605
2.08	Implement Technical Specification Modifications	$1,332	$5	$0	$0	$334	$1,671
2.09	Prepare Post-Shutdown Emergency Preparedness Plan	$634	$1	$0	$0	$159	$793
2.10	NRC Review of Emergency Preparedness Plan	$0	$0	$0	$105	$26	$131
2.11	Prepare Post-Shutdown Decommissioning Activities Report (PSDAR)	$550	$1	$0	$0	$138	$688
2.12	NRC Review of Post-Shutdown Decommissioning Activities Report (PSDAR)	$0	$0	$0	$105	$26	$131
2.13	Respond to NRC quesitons on PSDAR	$34	$1	$0	$0	$9	$43
2.14	Prepare Decommissioning Cost Estimate (DCE)	$1,429	$4	$0	$0	$358	$1,791
2.15	NRC Review of Decommissioning Cost Estimate	$0	$0	$0	$105	$26	$131
2.16	Disposition of Legacy Wastes	$0	$0	$16,457	$0	$4,114	$20,571
2.17	Perform Historic Site Assessment and Site Characterization	$6,784	$838	$0	$0	$1,143	$8,765
2.18	Planning and Design For Cold and Dark	$9,716	$90	$0	$0	$2,451	$12,257
2.19	Implement Cold and Dark (Repower Site)	$16,141	$17,860	$0	$0	$8,500	$42,501
2.20	Install 12kV Service Line to Power Temporary Power Ring	$0	$0	$0	$5,250	$1,313	$6,563
2.21	Drain and De-Energize Non-Essential Systems (DEC Process)	$822	$183	$1,485	$0	$623	$3,114
2.22	Select Decommissioning General Contractor	$645	$8	$0	$0	$163	$817
2.23	Design Spent Fuel Pool Support System Modifications	$622	$8	$0	$0	$157	$787
2.24	Design Control Room Relocation	$601	$7	$0	$0	$152	$760
2.25	Design Spent Fuel Security System Modifications	$459	$5	$0	$0	$116	$580
2.26	Install Spent Fuel Pool System Modifications - Unit 2	$1,863	$4,101	$0	$0	$1,491	$7,456
2.27	Install Spent Fuel Pool System Modifications - Unit 3	$1,863	$4,101	$0	$0	$1,491	$7,456
2.28	Spent Fuel Pool System Modification Training	$0	$0	$0	$273	$68	$341
2.29	Implement Control Room Modifications	$1,004	$1,519	$0	$0	$631	$3,153
2.30	Implement Spent Fuel Pool Security Modifications	$525	$795	$0	$0	$330	$1,650
2.31	Transition Project Modifications	$0	$0	$0	$105	$26	$131

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2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
Distributed	**Subtotal**	**$48,154**	**$29,538**	**$17,942**	**$6,077**	**$24,665**	**$126,376**
Undistributed							
1.01	Utility Staff	$56,478	$0	$0	$0	$14,119	$70,597
1.02	Utility Staff HP Supplies	$0	$1,781	$0	$0	$445	$2,226
1.03	Security Guard Force	$2,087	$0	$0	$0	$522	$2,609
1.04	Security Related Expenses	$77	$0	$0	$0	$19	$96
1.05	Insurance	$0	$0	$0	$4,446	$1,111	$5,557
1.06	Site Lease and Easement Expenses	$0	$0	$0	$470	$70	$540
1.07	NRC Decommissioning Fees	$0	$0	$0	$2,390	$598	$2,988
1.08	Materials and Services	$0	$3,208	$0	$0	$802	$4,010
1.09	DAW Disposal	$0	$0	$295	$0	$74	$369
1.10	Energy	$0	$0	$0	$6,338	$1,584	$7,922
1.13	Craft Worker Training	$234	$0	$0	$0	$58	$292
1.14	Workers Compensation Insurance	$0	$0	$0	$283	$71	$353
1.15	Community Outreach	$1,638	$0	$0	$1,830	$867	$4,335
1.16	Property Tax	$0	$0	$0	$2,350	$588	$2,938
1.17	Association Fees and Expenses	$0	$2,350	$0	$0	$588	$2,938
1.18	Utilities (Water, gas, phone)	$0	$738	$0	$0	$185	$923
1.20	Non-Process Computers	$0	$157	$0	$0	$39	$196
1.21	Telecommunications	$0	$157	$0	$0	$39	$196
1.24	Environmental Permits and Fees	$0	$0	$0	$2,977	$744	$3,721
1.25	Decommissioning Advisor	$0	$0	$0	$1,567	$392	$1,958
Undistributed	**Subtotal**	**$60,513**	**$8,391**	**$295**	**$22,650**	**$22,915**	**$114,764**
Decon Pd 2	**Subtotal**	**$108,667**	**$37,928**	**$18,237**	**$28,727**	**$47,581**	**$241,140**

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Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
Decon Pd 3	**Decommissioning Preparations and Reactor Internals Segmentation**						
Distributed							
3.01	Prepare Integrated Work Sequence and Schedule for Decommissioning	$952	$0	$0	$0	$238	$1,190
3.02	Prepare Detailed Work Procedures and Activity Specifications for Decommissioning	$14,920	$70	$0	$0	$3,748	$18,738
3.03	Planning and Design of Primary System Decontamination	$516	$4	$0	$0	$130	$649
3.04	Planning and Design Site Infrastructure Improvements	$341	$4	$0	$0	$86	$431
3.05	Design Containment Access Modifications	$557	$6	$0	$0	$141	$705
3.06	Primary System Decontamination - Unit 2	$1,447	$1,857	$2,228	$0	$1,383	$6,914
3.07	Primary System Decontamination - Unit 3	$1,447	$1,857	$2,228	$0	$1,383	$6,914
3.08	Hot Spot Decontamination - Unit 2	$580	$887	$743	$0	$552	$2,761
3.09	Hot Spot Decontamination - Unit 3	$580	$913	$743	$0	$559	$2,794
3.10	Modify Containment Access- Unit 2	$315	$611	$0	$0	$231	$1,157
3.11	Modify Containment Access- Unit 3	$315	$611	$0	$0	$231	$1,157
3.12	Remove and Dispose of Missle Shields - Unit 2	$206	$30	$81	$0	$79	$395
3.13	Remove and Dispose of Reactor Head - Unit 2	$879	$453	$2,463	$0	$949	$4,744
3.14	Remove and Dispose of Missile Shields - Unit 3	$437	$178	$3,375	$0	$997	$4,987
3.15	Remove and Dispose of Reactor Head - Unit 3	$879	$453	$2,463	$0	$949	$4,744
3.16	Finalize Residual Radiation Inventory	$125	$0	$0	$287	$103	$516
3.17	Prepare Activity Specifications	$7,328	$696	$0	$0	$2,006	$10,031
3.18	Select Shipping Casks and Obtain Shipping Permits	$49	$0	$0	$0	$12	$62
3.19	Design, Specify, and Procure Special Items and Materials	$972	$5,379	$0	$0	$1,588	$7,938
3.22	Test Special Cutting and Handling Equipment and Train Operators	$1,157	$148	$0	$0	$326	$1,631
3.23	Finalize Internals and Vessel Segmenting Details - Unit 2	$212	$16	$0	$0	$57	$284
3.24	Segment, Package and Dispose of Reactor Internals - Unit 2	$5,669	$2,036	$62,661	$0	$17,591	$87,957
3.25	Transfer Internals Segmentation Equipment to Unit 3	$131	$19	$0	$0	$37	$187
3.26	Finalize Internals and Vessel Segmenting Details - Unit 3	$212	$16	$0	$0	$57	$284
3.27	Segment, Package and Dispose of Reactor Internals - Unit 3	$5,669	$2,036	$62,661	$0	$17,591	$87,957
3.28	Construct New Change Rooms, Hot Laundry, In-Plant Laydown Areas	$0	$1,290	$0	$0	$194	$1,484
3.29	Procure Non-Engineered Standard Equipment	$0	$5,454	$0	$0	$1,364	$6,818
Distributed	**Subtotal**	**$45,893**	**$25,024**	**$139,643**	**$287**	**$52,583**	**$263,431**
Undistributed							
1.01	Utility Staff	$79,350	$0	$0	$0	$19,837	$99,187

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2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
1.02	Utility Staff HP Supplies	$0	$2,693	$0	$0	$673	$3,366
1.03	Security Guard Force	$5,484	$0	$0	$0	$1,371	$6,855
1.04	Security Related Expenses	$326	$0	$0	$0	$82	$408
1.05	Insurance	$0	$0	$0	$8,000	$2,000	$10,000
1.06	Site Lease and Easement Expenses	$0	$0	$0	$1,235	$185	$1,420
1.07	NRC Decommissioning Fees	$0	$0	$0	$6,281	$1,570	$7,851
1.08	Materials and Services	$0	$4,582	$0	$0	$1,145	$5,727
1.09	DAW Disposal	$0	$0	$424	$0	$106	$529
1.10	Energy	$0	$0	$0	$10,226	$2,556	$12,782
1.11	Decommissioning General Contractor Staff	$62,219	$0	$0	$0	$15,555	$77,773
1.12	DGC HP Supplies	$0	$1,558	$0	$0	$389	$1,947
1.13	Craft Worker Training	$1,842	$0	$0	$0	$460	$2,302
1.14	Workers Compensation Insurance	$0	$0	$0	$742	$186	$928
1.15	Community Outreach	$4,303	$0	$0	$4,808	$2,278	$11,390
1.16	Property Tax	$0	$0	$0	$6,175	$1,544	$7,719
1.17	Association Fees and Expenses	$0	$6,175	$0	$0	$1,544	$7,719
1.18	Utilities (Water, gas, phone)	$0	$1,106	$0	$0	$277	$1,383
1.19	Tools and Equipment	$0	$182	$0	$0	$45	$227
1.20	Non-Process Computers	$0	$412	$0	$0	$103	$515
1.21	Telecommunications	$0	$412	$0	$0	$103	$515
1.22	Personal Computers	$0	$0	$0	$89	$22	$111
1.24	Environmental Permits and Fees	$0	$0	$0	$7,822	$1,955	$9,777
1.25	Decommissioning Advisor	$0	$0	$0	$4,117	$1,029	$5,146
Undistributed	**Subtotal**	**$153,524**	**$17,119**	**$424**	**$49,495**	**$55,017**	**$275,579**
Decon Pd 3	**Subtotal**	**$199,417**	**$42,144**	**$140,067**	**$49,782**	**$107,600**	**$539,009**

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2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
Decon Pd 4	**Plant Systems and Large Component Removal**						
Distributed							
4.01	Upgrade Rail Spur	$0	$0	$0	$3,277	$819	$4,096
4.02	Install GARDIAN System	$0	$0	$0	$525	$131	$656
4.03	Scaffolding for Non-Essential System Removal	$3,516	$1,144	$200	$0	$1,215	$6,075
4.04	Asbestos Abatement and Hazardous Waste Disposal for Non-Essential Systems - Unit	$0	$0	$0	$1,050	$525	$1,575
4.05	Lead Abatement for Non-Essential Systems Removal - Unit 2	$2,287	$23	$411	$0	$1,361	$4,082
4.06	Remove, Package and Dispose of Non-Essential Systems - Unit 2	$33,512	$5,597	$31,969	$0	$17,769	$88,847
4.07	Asbestos Abatement and Hazardous Waste Disposal for Non-Essential Systems - Unit	$0	$0	$0	$1,050	$525	$1,575
4.08	Lead Abatement for Non-Essential Systems - Unit 3	$2,287	$399	$411	$0	$1,549	$4,647
4.09	Remove, Package and Dispose of Non-Essential Systems - Unit 3	$36,851	$6,313	$36,610	$0	$19,944	$99,718
4.10	Remove Underground Diesel Tank - Unit 2	$111	$45	$0	$41	$49	$247
4.11	Remove Underground Diesel Tank - Unit 3	$111	$45	$0	$41	$49	$247
4.12	Remove and Dispose of Spent Fuel Storage Racks - Unit 2	$42	$36	$4,922	$0	$1,250	$6,250
4.13	Remove and Dispose of Spent Fuel Storage Racks - Unit 3	$42	$36	$4,922	$0	$1,250	$6,250
4.14	Remove and Dispose of Legacy Class B and C Waste - Unit 2	$0	$0	$500	$0	$125	$625
4.15	Remove and Dispose of Legacy Class B and C Waste - Unit 3	$0	$0	$500	$0	$125	$625
4.16	Drain Spent Fuel Pool and Process Liquid Waste - Unit 2	$557	$703	$0	$0	$315	$1,575
4.17	Drain Spent Fuel Pool and Process Liquid Waste - Unit 3	$557	$703	$0	$0	$315	$1,575
4.18	Segment, Package and Dispose of Spent Fuel Pool Island Equipment	$11	$2	$107	$0	$30	$150
4.19	Segment and Dispose of Fuel Pool Bridge Crane - Unit 2	$85	$12	$168	$0	$66	$332
4.20	Segment and Dispose of Fuel Pool Bridge Crane - Unit 3	$85	$12	$168	$0	$66	$332
4.21	Flush and Drain Essential Systems Following Fuel Pool Closure	$226	$181	$2,970	$0	$844	$4,221
4.22	Scaffolding for Essential System Removal	$989	$322	$56	$0	$342	$1,708
4.23	Asbestos Abatement and Hazardous Waste Disposal for Essential Systems	$0	$0	$0	$788	$394	$1,181
4.24	Lead Abatement for Essential Systems Removal	$332	$58	$59	$0	$225	$674
4.25	Remove, Package and Dispose of Essential Systems	$33,774	$5,869	$17,264	$0	$14,227	$71,134
4.26	Removal and Disposal of Spent Resins, Filter Media and Tank Sludge	$90	$40	$7,425	$0	$1,889	$9,445
4.27	Reactor Vessel Insulation Removal and Disposal - Unit 2	$105	$12	$147	$0	$66	$331
4.28	Segment, Package and Dispose of Reactor Pressure Vessel - Unit 2	$1,044	$2,834	$29,313	$0	$8,298	$41,489
4.29	Transfer Rx Vessel Segmentation Equipment to Unit 3	$122	$18	$0	$0	$35	$175
4.30	Procure Replacement Non-Engineered Standard Equipment	$0	$454	$0	$0	$114	$568
4.31	Reactor Vessel Insulation Removal and Disposal - Unit 3	$105	$12	$147	$0	$66	$331

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2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
4.32	Segment, Package and Dispose of Reactor Pressure Vessel - Unit 3	$1,044	$2,834	$29,313	$0	$8,298	$41,489
4.33	Remove and Dispose of Steam Generators - Unit 2	$2,789	$1,288	$18,154	$0	$5,558	$27,788
4.34	Remove and Dispose of Pressurizer - Unit 2	$462	$70	$2,620	$0	$788	$3,940
4.35	Remove and Dispose of Steam Generators - Unit 3	$2,789	$1,288	$18,154	$0	$5,558	$27,788
4.36	Remove and Dispose of Pressurizer - Unit 3	$462	$70	$2,620	$0	$788	$3,940
4.37	Remove and Dispose of Turbine Gantry Crane - Unit 2	$445	$229	$0	$4	$170	$848
4.38	Remove and Dispose of Turbine Gantry Crane - Unit 3	$445	$229	$0	$4	$170	$848
4.39	Prepare License Termination Plan	$1,646	$149	$0	$0	$449	$2,244
Distributed	**Subtotal**	**$126,926**	**$31,029**	**$209,131**	**$6,779**	**$95,755**	**$469,620**
Undistributed							
1.01	Utility Staff	$71,956	$0	$0	$0	$17,989	$89,945
1.02	Utility Staff HP Supplies	$0	$2,715	$0	$0	$679	$3,394
1.03	Security Guard Force	$4,638	$0	$0	$0	$1,159	$5,797
1.04	Security Related Expenses	$1,007	$0	$0	$0	$252	$1,259
1.05	Insurance	$0	$0	$0	$3,653	$913	$4,566
1.06	Site Lease and Easement Expenses	$0	$0	$0	$1,044	$157	$1,201
1.07	NRC Decommissioning Fees	$0	$0	$0	$5,312	$1,328	$6,639
1.08	Materials and Services	$0	$4,204	$0	$0	$1,051	$5,255
1.09	DAW Disposal	$0	$0	$1,568	$0	$392	$1,960
1.10	Energy	$0	$0	$0	$7,568	$1,892	$9,460
1.11	Decommissioning General Contractor Staff	$125,798	$0	$0	$0	$31,449	$157,247
1.12	DGC HP Supplies	$0	$5,834	$0	$0	$1,458	$7,292
1.13	Craft Worker Training	$7,788	$0	$0	$0	$1,947	$9,735
1.14	Workers Compensation Insurance	$0	$0	$0	$628	$157	$785
1.15	Community Outreach	$3,639	$0	$0	$4,066	$1,926	$9,632
1.16	Property Tax	$0	$0	$0	$5,222	$1,306	$6,528
1.18	Utilities (Water, gas, phone)	$0	$1,007	$0	$0	$252	$1,258
1.19	Tools and Equipment	$0	$423	$0	$0	$106	$529
1.20	Non-Process Computers	$0	$348	$0	$0	$87	$435
1.21	Telecommunications	$0	$348	$0	$0	$87	$435
1.24	Environmental Permits and Fees	$0	$0	$0	$6,615	$1,654	$8,268
1.25	Decommissioning Advisor	$0	$0	$0	$2,611	$653	$3,264

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2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
Undistributed	**Subtotal**	**$214,826**	**$14,879**	**$1,568**	**$36,718**	**$66,893**	**$334,884**
Decon Pd 4	**Subtotal**	**$341,752**	**$45,908**	**$210,699**	**$43,497**	**$162,649**	**$804,504**

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2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
Decon Pd 5	**Building Decontamination**						
Distributed							
5.01	Decon Containment Building - Unit 3	$6,056	$3,318	$54,825	$0	$16,050	$80,249
5.02	Decon Penetration Building - Unit 3	$1,065	$351	$2,933	$0	$1,087	$5,437
5.03	Decon Safety Equipment and MSIV Building - Unit 3	$905	$390	$5,562	$0	$1,715	$8,573
5.04	Decon Fuel Handling Building - Unit 3	$1,275	$577	$16,101	$0	$4,488	$22,442
5.05	Decon Turbine Building - Unit 3	$100	$95	$3,925	$0	$1,030	$5,150
5.06	Decon Containment Building - Unit 2	$6,056	$3,318	$54,825	$0	$16,050	$80,249
5.07	Decon Penetration Building - Unit 2	$1,065	$351	$2,933	$0	$1,087	$5,437
5.08	Decon Safety Equipment and MSIV Building - Unit 2	$911	$396	$5,777	$0	$1,771	$8,854
5.09	Decon Fuel Handling Building - Unit 2	$1,275	$577	$16,101	$0	$4,488	$22,442
5.10	Decon Turbine Building - Unit 2	$100	$95	$3,925	$0	$1,030	$5,150
5.11	Decon Auxiliary Radwaste Building - Common	$943	$691	$17,999	$0	$4,908	$24,541
5.12	Decon Auxiliary Control Building - Common	$198	$163	$38	$0	$100	$499
5.13	Decon Condensate Area and Tunnels - Units 2 & 3	$375	$316	$403	$0	$274	$1,368
5.14	Excavate, Remove and Dispose of Yard Area Drains	$1,159	$128	$240	$0	$382	$1,908
5.15	Remove and Dispose of Contaminated Sumps, Trenches and Pavement	$185	$21	$746	$0	$238	$1,191
5.16	Remove and Dispose of Radiologically Contaminated Soil	$192	$216	$1,158	$0	$392	$1,958
5.17	Segment, Package and Dispose of Contaminated Decon Equipment and Tooling	$38	$6	$92	$0	$34	$170
5.18	Radiological Survey of Structures During Decon	$4,702	$3,666	$0	$0	$1,255	$9,623
Distributed	**Subtotal**	**$26,600**	**$14,676**	**$187,585**	**$0**	**$56,379**	**$285,240**
Undistributed							
1.01	Utility Staff	$29,516	$0	$0	$0	$7,379	$36,895
1.02	Utility Staff HP Supplies	$0	$997	$0	$0	$249	$1,247
1.03	Security Guard Force	$2,520	$0	$0	$0	$630	$3,150
1.04	Security Related Expenses	$560	$0	$0	$0	$140	$701
1.05	Insurance	$0	$0	$0	$1,985	$496	$2,481
1.06	Site Lease and Easement Expenses	$0	$0	$0	$567	$85	$652
1.07	NRC Decommissioning Fees	$0	$0	$0	$2,886	$722	$3,608
1.08	Materials and Services	$0	$1,668	$0	$0	$417	$2,086
1.09	DAW Disposal	$0	$0	$464	$0	$116	$580
1.10	Energy	$0	$0	$0	$2,336	$584	$2,920

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
1.11	Decommissioning General Contractor Staff	$56,286	$0	$0	$0	$14,071	$70,357
1.12	DGC HP Supplies	$0	$3,170	$0	$0	$792	$3,962
1.13	Craft Worker Training	$1,693	$0	$0	$0	$423	$2,116
1.14	Workers Compensation Insurance	$0	$0	$0	$341	$85	$426
1.15	Community Outreach	$862	$0	$0	$964	$457	$2,283
1.16	Property Tax	$0	$0	$0	$2,837	$709	$3,547
1.18	Utilities (Water, gas, phone)	$0	$413	$0	$0	$103	$517
1.19	Tools and Equipment	$0	$204	$0	$0	$51	$255
1.20	Non-Process Computers	$0	$189	$0	$0	$47	$236
1.21	Telecommunications	$0	$189	$0	$0	$47	$236
1.22	Personal Computers	$0	$0	$0	$71	$18	$88
1.24	Environmental Permits and Fees	$0	$0	$0	$3,594	$899	$4,493
1.25	Decommissioning Advisor	$0	$0	$0	$825	$206	$1,031
Undistributed	**Subtotal**	**$91,437**	**$6,832**	**$464**	**$16,406**	**$28,728**	**$143,866**
Decon Pd 5	**Subtotal**	**$118,037**	**$21,508**	**$188,049**	**$16,406**	**$85,106**	**$429,106**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
Decon Pd 6	**License Termination During Demolition**						
Distributed							
6.01	Final Status Survey	$9,613	$3,088	$0	$2,360	$2,259	$17,320
6.02	Prepare Final Report of Dismantling Program	$164	$4	$0	$0	$42	$210
Distributed	**Subtotal**	**$9,777**	**$3,091**	**$0**	**$2,360**	**$2,301**	**$17,530**
Undistributed							
1.01	Utility Staff	$1,378	$0	$0	$0	$345	$1,723
1.04	Security Related Expenses	$4	$0	$0	$0	$1	$5
1.07	NRC Decommissioning Fees	$0	$0	$0	$13,535	$3,384	$16,919
1.08	Materials and Services	$0	$47	$0	$0	$12	$58
1.09	DAW Disposal	$0	$0	$62	$0	$16	$78
1.10	Energy	$0	$0	$0	$1,872	$468	$2,340
1.11	Decommissioning General Contractor Staff	$651	$0	$0	$0	$163	$814
1.12	DGC HP Supplies	$0	$301	$0	$0	$75	$376
1.15	Community Outreach	$2,386	$0	$0	$2,666	$1,263	$6,315
1.18	Utilities (Water, gas, phone)	$0	$10	$0	$0	$3	$13
Undistributed	**Subtotal**	**$4,420**	**$357**	**$62**	**$18,074**	**$5,728**	**$28,641**
Decon Pd 6	**Subtotal**	**$14,197**	**$3,449**	**$62**	**$20,434**	**$8,029**	**$46,171**
A. License Termination	**Subtotal**	**$812,119**	**$150,936**	**$566,266**	**$171,959**	**$410,965**	**$2,112,246**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
B. Spent Fuel							
SNF Pd 1	**Spent Fuel Management Transition**						
Distributed							
7.01	Security Shut Down Strategy	$0	$0	$0	$8,388	$0	$8,388
7.02	Design and Fabricate Spent Fuel Canisters	$0	$0	$0	$8,842	$0	$8,842
7.03	Post Fukushima Modifications - Unit 2	$0	$0	$0	$126	$0	$126
7.05	Cyber Security Modifications	$0	$0	$0	$1,901	$0	$1,901
Distributed	**Subtotal**	**$0**	**$0**	**$0**	**$19,258**	**$0**	**$19,258**
Undistributed							
2.01	Utility Spent Fuel Staff	$38,478	$0	$0	$0	$0	$38,478
2.04	Security Guard Force	$69,889	$0	$0	$0	$0	$69,889
2.09	Emergency Preparedness Fees	$0	$0	$0	$2,340	$0	$2,340
2.10	Spent Fuel Maintenance	$0	$0	$0	$32	$0	$32
Undistributed	**Subtotal**	**$108,367**	**$0**	**$0**	**$2,372**	**$0**	**$110,739**
SNF Pd 1	**Subtotal**	**$108,367**	**$0**	**$0**	**$21,630**	**$0**	**$129,997**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SNF Pd 2	**Spent Fuel Transfer to Dry Storage**						
Distributed							
8.01	Security Shut Down Strategy	$0	$0	$0	$2,855	$714	$3,569
8.02	Decay Heat Analysis	$0	$0	$0	$105	$26	$131
8.03	Zirconium Fire/ Shine Analysis	$0	$0	$0	$105	$26	$131
8.05	NRC Review of Irradiated Fuel Management Plan	$0	$0	$0	$105	$26	$131
8.07	ISFSI Pad Study	$0	$0	$0	$103	$26	$129
8.08	Design ISFSI Expansion	$0	$0	$0	$3,150	$788	$3,938
8.09	Construct ISFSI Expansion	$0	$0	$0	$33,600	$8,400	$42,000
8.10	Purchase and Fabrication of Spent Fuel Canisters and AHSMs - Unit 2	$0	$49,613	$0	$0	$12,403	$62,016
8.11	Purchase and Fabrication Spent Fuel Canisters and AHSMs - Unit 3	$0	$50,794	$0	$0	$12,698	$63,492
8.12	Deliver and Load Spent Fuel Canisters and Transfer to ISFSI - Unit 2	$71,338	$17,478	$0	$0	$22,204	$111,021
8.13	Deliver and Load Spent Fuel Canisters and Transfer to ISFSI - Unit 3	$73,037	$17,894	$0	$0	$22,733	$113,664
Distributed	**Subtotal**	**$144,375**	**$135,779**	**$0**	**$40,023**	**$80,044**	**$400,221**
Undistributed							
2.01	Utility Spent Fuel Staff	$90,824	$0	$0	$0	$22,706	$113,530
2.02	Utility Staff HP Supplies	$0	$6,590	$0	$0	$1,647	$8,237
2.04	Security Guard Force	$112,313	$0	$0	$0	$28,078	$140,391
2.05	Security Related Expenses	$1,334	$0	$0	$0	$333	$1,667
2.06	Insurance	$0	$0	$0	$4,408	$1,102	$5,510
2.08	NRC Spent Fuel Fees	$0	$0	$0	$1,107	$277	$1,383
2.09	Emergency Preparedness Fees	$0	$0	$0	$18,756	$4,689	$23,445
2.10	Spent Fuel Maintenance	$0	$0	$0	$2,131	$533	$2,664
2.11	Materials and Services	$0	$5,848	$0	$0	$1,462	$7,310
2.12	DAW Disposal	$0	$0	$275	$0	$69	$343
2.13	Energy	$0	$0	$0	$3,991	$998	$4,989
2.15	Craft Worker Training	$2,119	$0	$0	$0	$530	$2,649
2.18	Utilities (Water, gas, phone)	$0	$3,572	$0	$0	$893	$4,465
2.22	Personal Computers	$0	$0	$0	$14	$3	$17
Undistributed	**Subtotal**	**$206,590**	**$16,010**	**$275**	**$30,406**	**$63,320**	**$316,601**
SNF Pd 2	**Subtotal**	**$350,965**	**$151,789**	**$275**	**$70,429**	**$143,364**	**$716,822**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SNF Pd 3	**Dry Storage During Decommissioning - Units 1, 2 and 3**						
Undistributed							
2.01	Utility Spent Fuel Staff	$39,894	$0	$0	$0	$9,973	$49,867
2.02	Utility Staff HP Supplies	$0	$1,487	$0	$0	$372	$1,859
2.04	Security Guard Force	$45,944	$0	$0	$0	$11,486	$57,430
2.05	Security Related Expenses	$2,556	$0	$0	$0	$639	$3,195
2.08	NRC Spent Fuel Fees	$0	$0	$0	$2,302	$576	$2,878
2.10	Spent Fuel Maintenance	$0	$0	$0	$1,478	$370	$1,848
2.11	Materials and Services	$0	$2,017	$0	$0	$504	$2,522
2.13	Energy	$0	$0	$0	$1,209	$302	$1,511
2.18	Utilities (Water, gas, phone)	$0	$1,380	$0	$0	$345	$1,725
2.22	Personal Computers	$0	$0	$0	$12	$3	$15
Undistributed	**Subtotal**	**$88,393**	**$4,884**	**$0**	**$5,001**	**$24,570**	**$122,849**
SNF Pd 3	**Subtotal**	**$88,393**	**$4,884**	**$0**	**$5,001**	**$24,570**	**$122,849**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SNF Pd 4	**Dry Storage Only - Units 1, 2 and 3**						
Undistributed							
2.01	Utility Spent Fuel Staff	$12,687	$0	$0	$0	$3,172	$15,859
2.02	Utility Staff HP Supplies	$0	$882	$0	$0	$220	$1,102
2.03	Additional Staff for Spent Fuel Shipping	$1,119	$0	$0	$0	$280	$1,398
2.04	Security Guard Force	$14,949	$0	$0	$0	$3,737	$18,687
2.05	Security Related Expenses	$2,506	$0	$0	$0	$626	$3,132
2.06	Insurance	$0	$0	$0	$2,538	$634	$3,172
2.07	Site Lease and Easement Expenses	$0	$0	$0	$1,154	$173	$1,327
2.08	NRC Spent Fuel Fees	$0	$0	$0	$1,638	$409	$2,047
2.10	Spent Fuel Maintenance	$0	$0	$0	$481	$120	$601
2.11	Materials and Services	$0	$778	$0	$0	$194	$972
2.13	Energy	$0	$0	$0	$393	$98	$492
2.16	Workers Compensation Insurance	$0	$0	$0	$694	$173	$867
2.17	Property Tax	$0	$0	$0	$6,412	$1,603	$8,015
2.18	Utilities (Water, gas, phone)	$0	$475	$0	$0	$119	$594
2.20	Non-Process Computers	$0	$192	$0	$0	$48	$240
2.21	Telecommunications	$0	$192	$0	$0	$48	$240
2.22	Personal Computers	$0	$0	$0	$15	$4	$18
Undistributed	**Subtotal**	**$31,261**	**$2,519**	**$0**	**$13,325**	**$11,661**	**$58,765**
SNF Pd 4	**Subtotal**	**$31,261**	**$2,519**	**$0**	**$13,325**	**$11,661**	**$58,765**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SNF Pd 5	**Dry Storage Only - Units 2 and 3**						
Undistributed							
2.01	Utility Spent Fuel Staff	$48,480	$0	$0	$0	$12,120	$60,601
2.02	Utility Staff HP Supplies	$0	$3,369	$0	$0	$842	$4,211
2.03	Additional Staff for Spent Fuel Shipping	$4,275	$0	$0	$0	$1,069	$5,344
2.04	Security Guard Force	$57,126	$0	$0	$0	$14,281	$71,407
2.05	Security Related Expenses	$4,124	$0	$0	$0	$1,031	$5,155
2.06	Insurance	$0	$0	$0	$9,698	$2,425	$12,123
2.07	Site Lease and Easement Expenses	$0	$0	$0	$4,409	$661	$5,071
2.08	NRC Spent Fuel Fees	$0	$0	$0	$6,259	$1,565	$7,823
2.10	Spent Fuel Maintenance	$0	$0	$0	$1,838	$459	$2,297
2.11	Materials and Services	$0	$2,972	$0	$0	$743	$3,715
2.13	Energy	$0	$0	$0	$1,503	$376	$1,879
2.16	Workers Compensation Insurance	$0	$0	$0	$2,651	$663	$3,314
2.17	Property Tax	$0	$0	$0	$22,053	$5,513	$27,566
2.18	Utilities (Water, gas, phone)	$0	$1,816	$0	$0	$454	$2,270
2.20	Non-Process Computers	$0	$735	$0	$0	$184	$919
2.21	Telecommunications	$0	$735	$0	$0	$184	$919
2.22	Personal Computers	$0	$0	$0	$32	$8	$40
Undistributed	**Subtotal**	**$114,005**	**$9,627**	**$0**	**$48,443**	**$42,578**	**$214,653**
SNF Pd 5	**Subtotal**	**$114,005**	**$9,627**	**$0**	**$48,443**	**$42,578**	**$214,653**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SNF D&D Pd 1	**ISFSI License Termination**						
Distributed							
12.01	Preparation and NRC Review of License Termination Plan	$116	$0	$0	$163	$70	$349
Distributed	**Subtotal**	**$116**	**$0**	**$0**	**$163**	**$70**	**$349**
Undistributed							
2.01	Utility Spent Fuel Staff	$366	$0	$0	$0	$91	$457
2.02	Utility Staff HP Supplies	$0	$11	$0	$0	$3	$14
2.04	Security Guard Force	$181	$0	$0	$0	$45	$226
2.05	Security Related Expenses	$70	$0	$0	$0	$18	$88
2.06	Insurance	$0	$0	$0	$215	$54	$269
2.07	Site Lease and Easement Expenses	$0	$0	$0	$98	$15	$112
2.08	NRC Spent Fuel Fees	$0	$0	$0	$75	$19	$94
2.11	Materials and Services	$0	$17	$0	$0	$4	$21
2.13	Energy	$0	$0	$0	$102	$26	$128
2.16	Workers Compensation Insurance	$0	$0	$0	$59	$15	$73
2.17	Property Tax	$0	$0	$0	$543	$136	$679
2.18	Utilities (Water, gas, phone)	$0	$7	$0	$0	$2	$9
Undistributed	**Subtotal**	**$617**	**$36**	**$0**	**$1,092**	**$426**	**$2,172**
SNF D&D Pd 1	**Subtotal**	**$733**	**$36**	**$0**	**$1,255**	**$496**	**$2,520**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SNF D&D Pd 2	**ISFSI Demolition**						
Distributed							
13.01	Install GARDIAN Bulk Assay System	$0	$0	$0	$525	$131	$656
13.02	Decon AHSMs	$339	$147	$443	$0	$232	$1,161
13.03	Final Status Survey of ISFSI	$1,589	$256	$0	$0	$277	$2,122
13.04	Clean Demolition of ISFSI AHSMs and Pad	$4,094	$2,590	$3,333	$0	$2,504	$12,521
13.05	Clean Demolition of ISFSI Support Structures	$1,126	$458	$1,372	$0	$739	$3,696
13.06	Restore ISFSI Site	$246	$161	$0	$0	$102	$509
13.07	Preparation of Final Report on Decommissioning and NRC Review	$52	$0	$0	$0	$13	$65
Distributed	**Subtotal**	**$7,446**	**$3,612**	**$5,148**	**$525**	**$3,998**	**$20,729**
Undistributed							
2.01	Utility Spent Fuel Staff	$1,801	$0	$0	$0	$450	$2,251
2.02	Utility Staff HP Supplies	$0	$72	$0	$0	$18	$90
2.04	Security Guard Force	$704	$0	$0	$0	$176	$880
2.05	Security Related Expenses	$37	$0	$0	$0	$9	$46
2.11	Materials and Services	$0	$93	$0	$0	$23	$116
2.12	DAW Disposal	$0	$0	$7	$0	$2	$8
2.13	Energy	$0	$0	$0	$268	$67	$334
2.14	Decommissioning General Contractor Staff	$4,525	$0	$0	$0	$1,131	$5,656
2.15	Craft Worker Training	$189	$0	$0	$0	$47	$236
2.18	Utilities (Water, gas, phone)	$0	$35	$0	$0	$9	$43
2.24	DGC HP Supplies	$0	$159	$0	$0	$40	$199
Undistributed	**Subtotal**	**$7,255**	**$359**	**$7**	**$268**	**$1,972**	**$9,861**
SNF D&D Pd 2	**Subtotal**	**$14,701**	**$3,972**	**$5,154**	**$793**	**$5,970**	**$30,590**
B. Spent Fuel	**Subtotal**	**$708,425**	**$172,826**	**$5,429**	**$160,876**	**$228,639**	**$1,276,196**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
C. Site Restoration							
SR Pd 1	**Transition to Site Restoration**						
Distributed							
14.01	Mesa Site Phase I and II Site Assessment	$0	$0	$0	$42	$11	$53
14.02	Disposition Hazardous Waste from Mesa Site	$0	$0	$0	$211	$106	$317
14.03	Mesa Site Characterization Survey	$988	$261	$0	$0	$312	$1,561
14.04	Fuel Cancellation Expense	$0	$0	$0	$17,679	$0	$17,679
Distributed	**Subtotal**	**$988**	**$261**	**$0**	**$17,932**	**$428**	**$19,610**
Undistributed							
3.05	Site Lease and Easement Expenses	$0	$0	$0	$1,030	$0	$1,030
3.11	Severance	$0	$0	$0	$109,850	$0	$109,850
Undistributed	**Subtotal**	**$0**	**$0**	**$0**	**$110,880**	**$0**	**$110,880**
SR Pd 1	**Subtotal**	**$988**	**$261**	**$0**	**$128,812**	**$428**	**$130,489**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SR Pd 2	**Building Demolition During Decommissioning**						
Distributed							
15.01	Prepare Site Restoration Demolition Plan and Schedule	$684	$10	$0	$0	$173	$866
15.02	Obtain Required Permits For Mesa, South Access and South Yard	$209	$4	$0	$0	$53	$266
15.03	Demolish Service Building (K-10, 20, 30)	$250	$189	$481	$0	$230	$1,150
15.04	Demolish South Security Processing Facility (K-70)	$46	$44	$122	$0	$53	$264
15.05	Demolish Staging Warehouse	$67	$55	$126	$0	$62	$311
15.06	Demolish Administration Building (K-40/50)	$367	$258	$565	$0	$297	$1,487
15.07	Demolish South Yard Area Buildings T-10, 20, 60 and Haz Mat.	$670	$590	$1,370	$0	$658	$3,288
15.08	Demolish REMS Staging Pad	$98	$184	$549	$0	$208	$1,038
15.09	Demolish Mesa Buildings	$2,788	$1,879	$6,006	$0	$2,668	$13,341
15.10	Remove Underground Fuel Storage Tanks	$56	$22	$0	$21	$25	$123
15.11	Demolish Mesa Roads and Parking Lots	$582	$400	$0	$0	$245	$1,227
15.12	Finish Grading and Re-vegetate Mesa Site	$299	$404	$0	$0	$176	$878
Distributed	**Subtotal**	**$6,114**	**$4,038**	**$9,219**	**$21**	**$4,848**	**$24,239**
Undistributed							
3.01	Utility Staff	$2,563	$0	$0	$0	$641	$3,204
3.03	Security Related Expenses	$898	$0	$0	$0	$224	$1,122
3.05	Site Lease and Easement Expenses	$0	$0	$0	$4,266	$640	$4,906
3.06	Materials and Services	$0	$134	$0	$0	$34	$168
3.08	Decommissioning General Contractor Staff	$4,248	$0	$0	$0	$1,062	$5,310
3.09	Craft Worker Training	$318	$0	$0	$0	$80	$398
3.11	Severance	$0	$0	$0	$8,688	$2,172	$10,860
3.13	Utilities (Water, gas, phone)	$0	$29	$0	$0	$7	$36
Undistributed	**Subtotal**	**$8,027**	**$164**	**$0**	**$12,955**	**$4,860**	**$26,005**
SR Pd 2	**Subtotal**	**$14,141**	**$4,201**	**$9,219**	**$12,975**	**$9,708**	**$50,245**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SR Pd 3	**Subsurface Demolition Engineering and Permitting**						
Distributed							
16.01	Hydrogeologic Investigation and Outfall Conduit Survey	$297	$131	$0	$105	$133	$667
16.02	Subsurface Structure Removal Engineering Planning and Design	$1,264	$33	$0	$0	$324	$1,621
16.03	Environmental Impacts Analyses for Lease Termination Activities	$581	$50	$0	$525	$289	$1,445
16.04	Final Site Grading and Shoreline Protection Engineering Planning and Design	$242	$13	$0	$0	$64	$319
16.05	Obtain Required Permits and Approvals	$1,856	$20	$0	$263	$535	$2,673
Distributed	**Subtotal**	**$4,240**	**$248**	**$0**	**$893**	**$1,345**	**$6,726**
Undistributed							
3.03	Security Related Expenses	$275	$0	$0	$0	$69	$344
3.11	Severance	$0	$0	$0	$24,674	$6,168	$30,842
Undistributed	**Subtotal**	**$275**	**$0**	**$0**	**$24,674**	**$6,237**	**$31,186**
SR Pd 3	**Subtotal**	**$4,516**	**$248**	**$0**	**$25,566**	**$7,582**	**$37,912**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SR Pd 4	**Building Demolition to 3 Feet Below Grade**						
Distributed							
17.01	Procure Clean Building Demolition Equipment	$0	$10,691	$0	$0	$2,673	$13,363
17.02	Install Temporary Structures	$11	$190	$0	$0	$30	$230
17.03	Install Erosion and Sediment Controls	$123	$14	$0	$0	$34	$172
17.04	Remove Cathodic Protection Trench	$1,813	$1,527	$22	$0	$840	$4,201
17.05	Remove Protected Area Security Fencing	$57	$18	$0	$0	$19	$95
17.06	Remove Protected Area Pavement	$139	$97	$755	$0	$248	$1,239
17.07	Detension and Remove Unit 3 Containment Builidng Tendons	$0	$0	$0	$4,200	$1,050	$5,250
17.08	Demolish Diesel Generator Building - Unit 3	$618	$245	$794	$0	$414	$2,072
17.09	Demolish Condensate Building and Transformer Pads - Unit 3	$1,067	$1,755	$3,183	$0	$1,501	$7,505
17.10	Demolish Full Flow Area and Turbine Building - Unit 3	$3,221	$1,149	$3,444	$0	$1,953	$9,767
17.11	Demolish Unit 3 Fuel Handling Building to 3-Feet Below Grade	$306	$354	$1,470	$0	$533	$2,663
17.12	Demolish Penetration Building - Unit 3	$293	$167	$642	$0	$275	$1,377
17.13	Demolish Safety Equipment and MSIV Building - Unit 3	$336	$403	$1,858	$0	$649	$3,246
17.14	Demolish Unit 3 Containment Building to 3-Feet Below Grade	$2,418	$1,351	$6,198	$0	$2,492	$12,459
17.15	Detension and Remove Unit 2 Containment Builidng Tendons	$0	$0	$0	$4,200	$1,050	$5,250
17.16	Demolish Diesel Generator Building - Unit 2	$128	$168	$787	$0	$271	$1,353
17.17	Demolish Condensate Building and Transformer Pads - Unit 2	$1,067	$1,755	$3,183	$0	$1,501	$7,505
17.18	Demolish Full Flow Area and Turbine Building - Unit 2	$3,734	$1,186	$3,447	$0	$2,092	$10,458
17.19	Demolish Unit 2 Fuel Handling Building to 3-Feet Below Grade	$306	$354	$1,470	$0	$533	$2,663
17.20	Demolish Penetration Building - Unit 2	$99	$136	$639	$0	$219	$1,093
17.21	Demolish Safety and MSIV Equipment Building - Unit 2	$336	$403	$1,859	$0	$649	$3,247
17.22	Demolish Unit 2 Containment Building to 3-Feet Below Grade	$2,418	$1,351	$6,198	$0	$2,492	$12,459
17.23	Demolish AWS Building	$1,108	$1,050	$2,925	$0	$1,271	$6,354
17.24	Demolish Building L-50	$59	$33	$67	$0	$40	$198
17.25	Demolish Maintenance Building 4 (B-64/B-65)	$24	$13	$25	$0	$16	$78
17.26	Demolish Maintenance Building 5 (B-62/B-63)	$35	$20	$37	$0	$23	$115
17.27	Demolish Outage Control Center	$98	$57	$148	$0	$76	$378
17.28	Demolish Maintenance Building 2 (B-49/B-50)	$49	$32	$82	$0	$41	$205
17.29	Demolish Maintenance Building 1 (B-43/B-44)	$163	$196	$857	$0	$304	$1,520
17.30	Demolish Auxilary Radwaste Building - Common	$1,521	$1,984	$9,214	$0	$3,180	$15,898
17.31	Demolish Auxilary Control Building - Common	$1,491	$811	$3,219	$0	$1,380	$6,901

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

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Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
17.32	Remove Systems and Demolish Make-Up Demineralizer Structures	$737	$122	$471	$0	$332	$1,662
17.33	Install Concrete Plugs in Intake and Discharge Structures	$272	$1,614	$0	$0	$472	$2,358
17.34	Demolish Intake and Discharge Structures to 3-Feet Below Grade	$82	$114	$535	$0	$183	$914
Distributed	**Subtotal**	**$24,128**	**$29,358**	**$53,530**	**$8,400**	**$28,834**	**$144,249**
Undistributed							
3.01	Utility Staff	$12,553	$0	$0	$0	$3,138	$15,691
3.02	Security Guard Force	$2,480	$0	$0	$0	$620	$3,100
3.03	Security Related Expenses	$1,158	$0	$0	$0	$290	$1,448
3.04	Insurance	$0	$0	$0	$3,995	$999	$4,993
3.05	Site Lease and Easement Expenses	$0	$0	$0	$1,340	$201	$1,541
3.06	Materials and Services	$0	$751	$0	$0	$188	$938
3.07	Energy	$0	$0	$0	$1,184	$296	$1,480
3.08	Decommissioning General Contractor Staff	$50,906	$0	$0	$0	$12,727	$63,633
3.09	Craft Worker Training	$1,999	$0	$0	$0	$500	$2,498
3.10	Workers Compensation Insurance	$0	$0	$0	$806	$201	$1,007
3.11	Severance	$0	$0	$0	$7,273	$1,818	$9,091
3.12	Property Tax	$0	$0	$0	$6,701	$1,675	$8,377
3.13	Utilities (Water, gas, phone)	$0	$214	$0	$0	$53	$267
3.14	Tools and Equipment	$0	$156	$0	$0	$39	$195
3.15	Non-Process Computers	$0	$223	$0	$0	$56	$279
3.16	Telecommunications	$0	$223	$0	$0	$56	$279
Undistributed	**Subtotal**	**$69,096**	**$1,567**	**$0**	**$21,298**	**$22,856**	**$114,817**
SR Pd 4	**Subtotal**	**$93,224**	**$30,924**	**$53,530**	**$29,698**	**$51,690**	**$259,066**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

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Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SR Pd 5	**Subgrade Structure Removal Below - 3 Feet**						
Distributed							
18.01	Procure Subsurface Structure Demolition Equipment	$0	$6,630	$0	$0	$1,658	$8,288
18.02	Install Sheet Piling and Excavation Shoring	$8,468	$17,219	$0	$0	$6,422	$32,109
18.03	Install Dewatering System and Effluent Treatment and Discharge Controls	$0	$0	$0	$9,651	$2,413	$12,064
18.04	Demolish and Backfill Unit 3 Condensate Storage Area Below -3 Feet	$179	$305	$912	$0	$349	$1,746
18.05	Demolish and Backfill Unit 3 Diesel Generator Builidng Below -3 Feet	$130	$173	$442	$0	$186	$932
18.06	Demolish and Backfill Unit 3 Fuel Handling Building Below -3 Feet	$271	$696	$1,170	$0	$534	$2,671
18.07	Demolish and Backfill Unit 3 Radwaste and Control Building Below -3 Feet	$1,367	$3,268	$5,249	$0	$2,471	$12,355
18.08	Demolish and Backfill Unit 3 Turbine Building Structure Below 9 Ft Elevation	$3,956	$9,277	$12,551	$0	$6,446	$32,231
18.09	Demolish and Backfill Unit 3 Safety Equipment Building Below -3 Feet	$717	$1,883	$2,713	$0	$1,328	$6,641
18.10	Demolish and Backfill Unit 3 Penetration Area Below -3 Feet	$294	$586	$1,285	$0	$541	$2,706
18.11	Demolish and Backfill Unit 3 Full Flow Building Below -3 Feet	$167	$527	$411	$0	$276	$1,382
18.12	Demolish and Backfill Unit 3 Containment Building Below -3 Feet	$1,211	$2,214	$4,636	$0	$2,015	$10,077
18.13	Demolish and Backfill Unit 2 Condensate Storage Area Below -3 Feet	$179	$305	$912	$0	$349	$1,746
18.14	Demolish and Backfill Unit 2 Diesel Generator Builidng Below -3 Feet	$130	$173	$442	$0	$186	$932
18.15	Demolish and Backfill Unit 2 Fuel Handling Building Below -3 Feet	$271	$696	$1,170	$0	$534	$2,671
18.16	Demolish and Backfill Unit 2 Radwaste and Control Building Below -3 Feet	$1,415	$3,308	$5,249	$0	$2,493	$12,466
18.17	Demolish and Backfill Unit 2 Turbine Building Structure Below 9 Ft Elevation	$3,959	$9,277	$12,551	$0	$6,447	$32,234
18.18	Demolish and Backfill Unit 2 Safety Equipment Building Below -3 Feet	$717	$1,883	$2,713	$0	$1,328	$6,641
18.19	Demolish and Backfill Unit 2 Penetration Area Below -3 Feet	$294	$586	$1,285	$0	$541	$2,706
18.20	Demolish and Backfill Unit 2 Full Flow Building Below -3 Feet	$167	$527	$411	$0	$276	$1,382
18.21	Demolish and Backfill Unit 2 Containment Building Below -3 Feet	$1,211	$2,214	$4,636	$0	$2,015	$10,077
18.22	Demolish and Backfill Intake Structure Below -3 Feet	$6,664	$12,970	$36,706	$0	$14,085	$70,426
18.23	Remove Off Shore Intake and Outfall Conduits	$12,406	$44,308	$19,580	$0	$19,073	$95,367
18.24	Remove Sheet Piling and Excavation Shoring	$11,776	$0	$0	$0	$2,944	$14,721
18.25	Remove Dewatering System and Effluent Treatment	$0	$0	$0	$2,308	$577	$2,885
18.26	Finish Grading and Re-Vegetate Site	$945	$813	$0	$0	$440	$2,198
18.27	Remove Temporary Structures	$58	$48	$0	$0	$16	$122
Distributed	**Subtotal**	**$56,952**	**$119,889**	**$115,025**	**$11,959**	**$75,946**	**$379,772**
Undistributed							
3.01	Utility Staff	$7,082	$0	$0	$0	$1,771	$8,853

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
3.02	Security Guard Force	$1,830	$0	$0	$0	$458	$2,288
3.03	Security Related Expenses	$139	$0	$0	$0	$35	$173
3.04	Insurance	$0	$0	$0	$2,948	$737	$3,685
3.05	Site Lease and Easement Expenses	$0	$0	$0	$989	$148	$1,137
3.06	Materials and Services	$0	$415	$0	$0	$104	$519
3.07	Energy	$0	$0	$0	$814	$204	$1,018
3.08	Decommissioning General Contractor Staff	$26,176	$0	$0	$0	$6,544	$32,720
3.09	Craft Worker Training	$983	$0	$0	$0	$246	$1,229
3.10	Workers Compensation Insurance	$0	$0	$0	$595	$149	$743
3.11	Severance	$0	$0	$0	$2,050	$513	$2,563
3.12	Property Tax	$0	$0	$0	$4,946	$1,237	$6,183
3.13	Utilities (Water, gas, phone)	$0	$128	$0	$0	$32	$160
3.14	Tools and Equipment	$0	$73	$0	$0	$18	$91
3.15	Non-Process Computers	$0	$165	$0	$0	$41	$206
3.16	Telecommunications	$0	$165	$0	$0	$41	$206
Undistributed	**Subtotal**	**$36,211**	**$946**	**$0**	**$12,343**	**$12,276**	**$61,775**
SR Pd 5	**Subtotal**	**$93,163**	**$120,834**	**$115,025**	**$24,302**	**$88,222**	**$441,547**

Table 1
SONGS Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

		License Status	POL	Unit 2 Shut Down:	6/7/2013
Decommissioning Alternative	DECON	Fuel Pool Systems	Modified	Unit 3 Shut Down:	6/7/2013
Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
SR Pd 6	**Final Site Restoration and Lease Termination**						
Distributed							
19.01	Obtain Required Permits and Approvals	$404	$20	$0	$131	$139	$693
19.02	Install Temporary Structures	$6	$35	$0	$0	$6	$48
19.03	Procure Site Restoration Equipment	$0	$404	$0	$0	$101	$505
19.04	Install Temporary Seawall or Coffer Dam	$8,551	$17,624	$0	$0	$6,544	$32,718
19.05	Install Dewatering System and Effluent Treatment and Discharge Controls	$0	$0	$0	$1,427	$357	$1,784
19.06	Remove and Stockpile Existing Seawall Erosion Protection	$6	$11	$0	$0	$4	$21
19.07	Remove Unit 2 and 3 Seawall and Pedestrian Walkway	$3,206	$3,060	$4,558	$0	$2,706	$13,530
19.08	Remove Remaining Intake and Outfall Box Culvert	$336	$468	$2,188	$0	$748	$3,739
19.09	Remove Temporary Seawall or Coffer Dam	$11,791	$143	$0	$0	$2,983	$14,917
19.10	Backfill and Compaction of Excavation	$1,471	$2,238	$0	$0	$556	$4,265
19.11	Remove Dewatering System and Effluent Treatment	$0	$0	$0	$592	$148	$740
19.12	Install Shoreline Erosion Control and Restoration Features	$10	$144	$0	$0	$38	$192
19.13	Remove Railroad Tracks, Rails and Ballast	$63	$35	$0	$0	$24	$122
19.14	Remove Gunite Slope Protection	$262	$366	$1,710	$0	$585	$2,923
19.15	Remove Access Roads and Parking Lots	$240	$181	$0	$0	$105	$527
19.16	Finish Grading and Re-Vegetate Site	$27	$28	$0	$0	$14	$68
19.17	Remove Temporary Structures	$8	$7	$0	$0	$2	$18
Distributed	**Subtotal**	**$26,380**	**$24,763**	**$8,456**	**$2,151**	**$15,061**	**$76,810**
Undistributed							
3.01	Utility Staff	$2,219	$0	$0	$0	$555	$2,773
3.04	Insurance	$0	$0	$0	$605	$151	$756
3.05	Site Lease and Easement Expenses	$0	$0	$0	$507	$76	$583
3.06	Materials and Services	$0	$142	$0	$0	$35	$177
3.07	Energy	$0	$0	$0	$418	$104	$522
3.08	Decommissioning General Contractor Staff	$8,062	$0	$0	$0	$2,016	$10,078
3.09	Craft Worker Training	$504	$0	$0	$0	$126	$630
3.10	Workers Compensation Insurance	$0	$0	$0	$305	$76	$381
3.11	Severance	$0	$0	$0	$6,077	$1,519	$7,596
3.12	Property Tax	$0	$0	$0	$2,536	$634	$3,169
3.13	Utilities (Water, gas, phone)	$0	$31	$0	$0	$8	$38

Table 1
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Spent Fuel Alternative	Dry	Repository Opening Date:	1/1/2024		

2014 Dollars in Thousands

No	Item Description	Labor	Equipment	Disposal	Other	Contingency	Total
3.14	Tools and Equipment	$0	$24	$0	$0	$6	$31
Undistributed	**Subtotal**	**$10,785**	**$197**	**$0**	**$10,446**	**$5,307**	**$26,735**
SR Pd 6	**Subtotal**	**$37,165**	**$24,960**	**$8,456**	**$12,597**	**$20,367**	**$103,545**
C. Site Restoration	**Subtotal**	**$243,198**	**$181,428**	**$186,230**	**$233,951**	**$177,997**	**$1,022,804**
	Total	**$1,763,742**	**$505,191**	**$757,925**	**$566,786**	**$817,601**	**$4,411,246**

Appendix E

Annual Cash Flow Table

SONGS Annual Cost By Account

Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

Unit No: Unit 2

2014 Dollars in Thousands

Year	License Termination	Spent Fuel	Site Restoration	Total
2013	$25,749	$63,891	$49,067	$138,706
2014	$79,799	$35,719	$15,089	$130,607
2015	$69,196	$106,308	$7,439	$182,943
2016	$54,541	$59,308	$3,730	$117,579
2017	$111,903	$59,308	$1,957	$173,168
2018	$47,520	$59,308	$0	$106,828
2019	$108,328	$27,554	$13,539	$149,420
2020	$185,482	$4,908	$36	$190,426
2021	$79,081	$4,908	$36	$84,026
2022	$54,785	$4,908	$1,927	$61,621
2023	$158,207	$4,908	$36	$163,151
2024	$37,930	$4,908	$16,848	$59,687
2025	$2,922	$4,908	$44,621	$52,451
2026	$2,922	$4,908	$19,412	$27,243
2027	$2,922	$4,908	$22,469	$30,299
2028	$2,922	$4,908	$31,688	$39,518
2029	$2,922	$4,908	$66,873	$74,704
2030	$2,922	$4,908	$71,867	$79,697
2031	$2,055	$5,089	$23,181	$30,325
2032	$2,122	$7,214	$0	$9,336
2033	$0	$7,214	$0	$7,214
2034	$0	$7,214	$0	$7,214
2035	$0	$7,228	$0	$7,228
2036	$0	$7,665	$0	$7,665
2037	$0	$7,665	$0	$7,665
2038	$0	$7,665	$0	$7,665
2039	$0	$7,665	$0	$7,665
2040	$0	$7,665	$0	$7,665
2041	$0	$7,665	$0	$7,665
2042	$0	$7,665	$0	$7,665
2043	$0	$7,665	$0	$7,665
2044	$0	$7,665	$0	$7,665
2045	$0	$7,665	$0	$7,665
2046	$0	$7,665	$0	$7,665
2047	$0	$7,665	$0	$7,665
2048	$0	$7,665	$0	$7,665

SONGS Annual Cost By Account

Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

Unit No: Unit 2

2014 Dollars in Thousands

Year	License Termination	Spent Fuel	Site Restoration	Total
2049	$0	$7,667	$0	$7,667
2050	$0	$9,974	$20,177	$30,151
2051	$0	$6,573	$11,928	$18,500
2052	$0	$0	$1,377	$1,377
Total	$1,034,230	$623,209	$423,297	$2,080,735

SONGS Annual Cost By Account

Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

Unit No: Unit 3

2014 Dollars in Thousands

Year	License Termination	Spent Fuel	Site Restoration	Total
2013	$26,566	$66,105	$49,067	$141,739
2014	$78,964	$40,156	$15,969	$135,089
2015	$74,096	$112,024	$9,390	$195,509
2016	$61,451	$64,405	$25,227	$151,083
2017	$40,631	$64,405	$3,799	$108,835
2018	$86,348	$64,405	$0	$150,753
2019	$96,521	$29,675	$13,908	$140,104
2020	$120,873	$4,908	$2,135	$127,916
2021	$194,090	$4,908	$575	$199,574
2022	$135,313	$4,908	$2,467	$142,688
2023	$114,581	$4,908	$1,511	$121,000
2024	$26,874	$4,908	$36,778	$68,560
2025	$2,922	$4,908	$40,655	$48,485
2026	$2,922	$4,908	$21,676	$29,507
2027	$2,922	$4,908	$25,848	$33,678
2028	$2,922	$4,908	$20,945	$28,776
2029	$2,922	$4,908	$117,321	$125,151
2030	$2,922	$4,908	$116,672	$124,503
2031	$2,055	$5,089	$25,501	$32,645
2032	$2,122	$7,214	$0	$9,336
2033	$0	$7,214	$0	$7,214
2034	$0	$7,214	$0	$7,214
2035	$0	$7,228	$0	$7,228
2036	$0	$7,665	$0	$7,665
2037	$0	$7,665	$0	$7,665
2038	$0	$7,665	$0	$7,665
2039	$0	$7,665	$0	$7,665
2040	$0	$7,665	$0	$7,665
2041	$0	$7,665	$0	$7,665
2042	$0	$7,665	$0	$7,665
2043	$0	$7,665	$0	$7,665
2044	$0	$7,665	$0	$7,665
2045	$0	$7,665	$0	$7,665
2046	$0	$7,665	$0	$7,665
2047	$0	$7,665	$0	$7,665
2048	$0	$7,665	$0	$7,665

SONGS Annual Cost By Account

Prompt DECON Base Case, 2024 DOE Acceptance, Dry Storage

Unit No: Unit 3

2014 Dollars in Thousands

Year	License Termination	Spent Fuel	Site Restoration	Total
2049	$0	$7,667	$0	$7,667
2050	$0	$9,974	$23,120	$33,094
2051	$0	$6,573	$45,566	$52,139
2052	$0	$0	$1,377	$1,377
Total	$1,078,016	$652,987	$599,507	$2,330,511

Appendix F

SDG&E SONGS Decommissioning Costs (100%)

San Diego Gas & Electric Company (SDG&E) provides the following information regarding its internal decommissioning costs, which it expects to incur and to fund on its own behalf (100%) in addition to its 20% share of the Decommissioning Cost Estimate.

I. BACKGROUND

As the 20% minority owner, SDG&E is contractually obligated to pay its 20% ownership share of decommissioning expenses for SONGS. These costs, outlined in the DCE, will be incurred by the decommissioning agent and SDG&E will receive invoicing for its proportional share.

II. SDG&E COSTS

Table F-1

SDG&E SONGS DECOMMISSIONING COSTS (1,000's, $2014)

Total Units 2 & 3	SDG&E Labor	Other/ Non-Labor	Total Costs
License Termination	$3,832	$1,047	$4,879
Spent Fuel Management	$2,729	$417	$3,147
Site Restoration	$1,904	$401	$2,305
Total	$8,465	$1,865	$10,330

In addition to SDG&E's 20% share of the costs outlined in the DCE, SDG&E also incurs internal costs related to its SONGS ownership. SDG&E incurs 100% of these Labor and Non-Labor costs related to SDG&E's oversight activities. These costs are apportioned into SCE's DCE categories of License Termination, Spent Fuel Management, and Site Restoration by determining the percentage of costs SCE allocated to each category and multiplying SDG&E's

costs by that same percentage for each category. SDG&E estimates that its total internal costs over the decommissioning period to be $10.33 million (2014$).

a. SDG&E LABOR

The first category, "SDG&E Labor" includes SDG&E staff who provide oversight of SONGS costs and activities. SDG&E's internal staffing efforts are expected to mirror site staffing where the three (3) full-time equivalents ("FTEs") are reduced after 2016 to two (2) FTEs, then to one (1) FTE after 2025, and eventually to zero (0) FTEs after 2032. After 2032, invoicing and oversight activities are anticipated to be minor during this period. Once ISFSI decommissioning is initiated on or around 2049, SDG&E plans to identify one (1) full-time equivalent through 2052.

These costs are shown in Table F-1 under the column heading of "SDG&E Labor" and are apportioned into SCE's categories of License Termination, Spent Fuel Management, and Site Restoration.

b. OTHER/NON-LABOR

The second type of SDG&E-specific costs are "Other/Non-Labor", which consist of outside decommissioning consultants and direct costs related to oversight activities.

To provide oversight of decommissioning activities, SDG&E has retained an external decommissioning consultant who has the expertise SDG&E requires. The external consultant is utilized to a greater extent through 2016 and then the consultant services are tapered off annually through 2025.

SDG&E also incurs direct costs related specifically to SDG&E's oversight activities at SONGS. These costs, which include travel reimbursement, phone services, training, and wireless

communication from SONGS, will coincide with the number of SDG&E SONGS oversight personnel FTEs.

These costs are shown in Table F-1 under the column heading of Other/Non-labor and are apportioned into SCE's categories of License Termination, Spent Fuel Management, and Site Restoration.

III. CONCLUSION

All of SDG&E's internal decommissioning costs presented in Table F-1 are separate and distinct from the costs incurred by the decommissioning agent and invoiced to SDG&E.

SDG&E will seek authority to access its nuclear decommissioning trust funds to pay for its proportional share of SONGS related decommissioning expenses and for its internal decommissioning costs incurred through a Commission-approved advice letter process consistent with the terms of the SDG&E Master Trust Agreement, and relevant rules and regulations of the Internal Revenue Service and the Nuclear Regulatory Commission.

SDG&E SONGS Detailed Annual Expenditures

Base Case: Prompt DECON, Time Reasonable Schedule, DOE Repository Opening 2024, Utility and DGC, Dry Storage
(2014 Dollars in Thousands)

Account Totals

	Unit 2			Unit 3			Total			
	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Total
License Termination	$1,905	$0	$487	$1,927	$0	$560	$3,832	$0	$1,047	$4,879
Spent Fuel Management	$1,349	$0	$184	$1,380	$0	$233	$2,729	$0	$417	$3,147
Site Restoration	$761	$0	$153	$1,143	$0	$248	$1,904	$0	$401	$2,305
	$4,016	**$0**	**$823**	**$4,450**	**$0**	**$1,041**	**$8,465**	**$0**	**$1,865**	**$10,330**

Unit 2

	License Termination			Spent Fuel Management			Site Restoration			ISFSI D&D		
Year	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other
2013	$25	$0	$0	$91	$0	$0	$0	$0	$1	$0	$0	$0
2014	$240	$0	$41	$122	$0	$22	$0	$0	$28	$0	$0	$0
2015	$225	$0	$20	$123	$0	$66	$6	$0	$5	$0	$0	$0
2016	$133	$0	$41	$203	$0	$22	$10	$0	$3	$0	$0	$0
2017	$88	$0	$77	$138	$0	$23	$4	$0	$2	$0	$0	$0
2018	$74	$0	$34	$144	$0	$24	$0	$0	$0	$0	$0	$0
2019	$162	$0	$47	$78	$0	$7	$0	$0	$21	$0	$0	$0
2020	$244	$0	$89	$11	$0	$1	$0	$0	$0	$0	$0	$0
2021	$146	$0	$35	$13	$0	$1	$0	$0	$0	$0	$0	$0
2022	$184	$0	$25	$20	$0	$1	$0	$0	$5	$0	$0	$0
2023	$206	$0	$57	$21	$0	$1	$0	$0	$0	$0	$0	$0
2024	$139	$0	$14	$29	$0	$1	$45	$0	$21	$0	$0	$0
2025	$6	$0	$1	$23	$0	$0	$89	$0	$9	$0	$0	$0
2026	$7	$0	$1	$30	$0	$0	$74	$0	$7	$0	$0	$0
2027	$7	$0	$1	$28	$0	$0	$73	$0	$7	$0	$0	$0
2028	$7	$0	$1	$27	$0	$0	$88	$0	$10	$0	$0	$0
2029	$5	$0	$0	$20	$0	$0	$71	$0	$6	$0	$0	$0
2030	$5	$0	$0	$21	$0	$0	$71	$0	$7	$0	$0	$0
2031	$3	$0	$1	$25	$0	$1	$82	$0	$7	$0	$0	$0
2032	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2038	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2042	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2047	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	$0	$0	$0	$114	$0	$9	$0	$0	$0	$0	$0	$0
2050	$0	$0	$0	$46	$0	$2	$111	$0	$6	$0	$0	$0
2051	$0	$0	$0	$24	$0	$1	$35	$0	$4	$0	$0	$0
2052	$0	$0	$0	$0	$0	$0	$0	$0	$4	$0	$0	$0
	$1,905	**$0**	**$487**	**$1,349**	**$0**	**$184**	**$761**	**$0**	**$153**	**$0**	**$0**	**$0**

Unit 3

	License Termination			Spent Fuel Management			Site Restoration			ISFSI D&D		
Year	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other
2013	$25	$0	$0	$91	$0	$0	$0	$0	$1	$0	$0	$0
2014	$235	$0	$41	$122	$0	$30	$2	$0	$28	$0	$0	$0
2015	$228	$0	$23	$123	$0	$71	$15	$0	$5	$0	$0	$0
2016	$134	$0	$53	$206	$0	$32	$34	$0	$38	$0	$0	$0
2017	$71	$0	$33	$139	$0	$34	$6	$0	$4	$0	$0	$0
2018	$83	$0	$67	$145	$0	$36	$0	$0	$0	$0	$0	$0
2019	$127	$0	$46	$79	$0	$10	$1	$0	$21	$0	$0	$0
2020	$174	$0	$50	$11	$0	$1	$5	$0	$0	$0	$0	$0
2021	$272	$0	$94	$13	$0	$1	$1	$0	$0	$0	$0	$0
2022	$220	$0	$83	$20	$0	$1	$1	$0	$6	$0	$0	$0
2023	$192	$0	$51	$21	$0	$1	$6	$0	$1	$0	$0	$0
2024	$125	$0	$13	$29	$0	$1	$79	$0	$51	$0	$0	$0
2025	$6	$0	$1	$23	$0	$0	$83	$0	$8	$0	$0	$0
2026	$7	$0	$1	$30	$0	$0	$80	$0	$8	$0	$0	$0
2027	$7	$0	$1	$28	$0	$0	$83	$0	$8	$0	$0	$0
2028	$7	$0	$1	$27	$0	$0	$73	$0	$5	$0	$0	$0
2029	$5	$0	$0	$20	$0	$0	$108	$0	$12	$0	$0	$0
2030	$5	$0	$0	$21	$0	$0	$105	$0	$11	$0	$0	$0
2031	$3	$0	$1	$25	$0	$1	$89	$0	$8	$0	$0	$0
2032	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2038	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2042	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2047	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	$0	$0	$0	$114	$0	$9	$0	$0	$0	$0	$0	$0
2050	$0	$0	$0	$46	$0	$2	$69	$0	$8	$0	$0	$0
2051	$0	$0	$0	$24	$0	$1	$152	$0	$11	$0	$0	$0
2052	$0	$0	$0	$24	$0	$1	$152	$0	$11	$0	$0	$0
	$1,927	**$0**	**$560**	**$1,380**	**$0**	**$233**	**$1,143**	**$0**	**$248**	**$0**	**$0**	**$0**

SDG&E SONGS Detailed Annual Expenditures

Base Cas Prompt DECON, Time Reasonable Schedule, DOE Repository Opening 2024, Utility and DGC, Dry Storage
(2014 Dollars in Thousands)

Account Totals

	Unit 2			Unit 3			Total			
	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Total
License Termination	$1,905	$0	$487	$1,927	$0	$560	$3,832	$0	$1,047	$4,879
Spent Fuel Management	$1,349	$0	$184	$1,380	$0	$233	$2,729	$0	$417	$3,147
Site Restoration	$761	$0	$153	$1,143	$0	$248	$1,904	$0	$401	$2,305
	$4,016	**$0**	**$823**	**$4,450**	**$0**	**$1,041**	**$8,465**	**$0**	**$1,865**	**$10,330**

Unit 2 and 3 Total

	License Termination			Spent Fuel Management			Site Restoration			ISFSI D&D		
Year	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other	Labor	LLRW Burial	Other
2013	$50	$0	$0	$182	$0	$1	$0	$0	$3	$0	$0	$0
2014	$474	$0	$82	$243	$0	$51	$2	$0	$56	$0	$0	$0
2015	$453	$0	$42	$245	$0	$137	$21	$0	$10	$0	$0	$0
2016	$267	$0	$95	$409	$0	$53	$44	$0	$41	$0	$0	$0
2017	$159	$0	$109	$277	$0	$57	$10	$0	$5	$0	$0	$0
2018	$157	$0	$101	$289	$0	$60	$0	$0	$0	$0	$0	$0
2019	$288	$0	$93	$157	$0	$16	$1	$0	$42	$0	$0	$0
2020	$418	$0	$139	$23	$0	$2	$5	$0	$0	$0	$0	$0
2021	$419	$0	$129	$26	$0	$2	$1	$0	$0	$0	$0	$0
2022	$404	$0	$107	$41	$0	$3	$2	$0	$11	$0	$0	$0
2023	$399	$0	$108	$42	$0	$3	$6	$0	$1	$0	$0	$0
2024	$264	$0	$27	$58	$0	$2	$124	$0	$72	$0	$0	$0
2025	$11	$0	$1	$45	$0	$0	$171	$0	$17	$0	$0	$0
2026	$15	$0	$3	$60	$0	$1	$153	$0	$15	$0	$0	$0
2027	$14	$0	$2	$57	$0	$1	$157	$0	$15	$0	$0	$0
2028	$13	$0	$2	$53	$0	$1	$161	$0	$16	$0	$0	$0
2029	$10	$0	$0	$39	$0	$0	$179	$0	$18	$0	$0	$0
2030	$10	$0	$0	$42	$0	$0	$176	$0	$18	$0	$0	$0
2031	$6	$0	$2	$50	$0	$1	$172	$0	$15	$0	$0	$0
2032	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2038	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2042	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2047	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	$0	$0	$0	$228	$0	$18	$0	$0	$0	$0	$0	$0
2050	$0	$0	$0	$93	$0	$4	$180	$0	$14	$0	$0	$0
2051	$0	$0	$0	$48	$0	$3	$187	$0	$16	$0	$0	$0
2052	$0	$0	$0	$24	$0	$1	$152	$0	$16	$0	$0	$0
	$3,832	**$0**	**$1,047**	**$2,729**	**$0**	**$417**	**$1,904**	**$0**	**$401**	**$0**	**$0**	**$0**

Unit 2 and 3 Project Totals

Year	License Term	Spent Fuel	Site Restoration	Total
2013	$51	$182	$3	$236
2014	$557	$294	$58	$909
2015	$496	$382	$31	$909
2016	$362	$462	$85	$909
2017	$269	$334	$15	$618
2018	$258	$349	$0	$608
2019	$381	$173	$43	$598
2020	$557	$25	$5	$588
2021	$548	$28	$2	$578
2022	$511	$43	$13	$567
2023	$506	$44	$7	$557
2024	$291	$60	$196	$547
2025	$12	$45	$188	$246
2026	$18	$60	$168	$246
2027	$16	$57	$172	$246
2028	$15	$54	$177	$246
2029	$10	$39	$197	$246
2030	$11	$42	$194	$246
2031	$9	$51	$187	$246
2032	$0	$0	$0	$0
2033	$0	$0	$0	$0
2034	$0	$0	$0	$0
2035	$0	$0	$0	$0
2036	$0	$0	$0	$0
2037	$0	$0	$0	$0
2038	$0	$0	$0	$0
2039	$0	$0	$0	$0
2040	$0	$0	$0	$0
2041	$0	$0	$0	$0
2042	$0	$0	$0	$0
2043	$0	$0	$0	$0
2044	$0	$0	$0	$0
2045	$0	$0	$0	$0
2046	$0	$0	$0	$0
2047	$0	$0	$0	$0
2048	$0	$0	$0	$0
2049	$0	$246	$0	$246
2050	$0	$97	$195	$291
2051	$0	$51	$203	$253
2052	$0	$25	$168	$193
	$4,879	**$3,147**	**$2,305**	**$10,330**

Attachment C

IRS Private Letter Ruling, dated March 31, 2014, and SDG&E Request Concerning Early Decommissioning Costs

Internal Revenue Service

Department of the Treasury
Washington, DC 20224

Index Number: 468A.01-00

Third Party Communication: None
Date of Communication: Not Applicable

Person To Contact:
Patrick S. Kirwan, ID No. 1000219435

Telephone Number:
(202) 317-6853

Refer Reply To:
CC:PSI:B6
PLR-147158-13

Date: MAR 3 1 2014

Robert Schlax
Vice President, Controller and CFO
San Diego Gas & Electric Company
8306 Century Park Court
San Diego, CA 92123

LEGEND:

Taxpayer	=	San Diego Gas & Electric Company (EIN: 95-1184800)
Parent	=	Sempra Energy (EIN: 33-0732627)
Plant A	=	San Onofre Nuclear Generating Station – Unit Two
Plant B	=	San Onofre Nuclear Generating Station – Unit Three
Location	=	San Diego County, California
Commission	=	California Public Utility Commission
State	=	California
Year A	=	1983
Year B	=	1984
Date 1	=	February 16, 2022
Date 2	=	November 15, 2022
Date 3	=	June 7, 2013
P	=	20%
D	=	20%
Fund	=	Nuclear Decommissioning Fund
Director	=	Industry Director, Natural Resources and Construction

Dear Mr. Schlax:

This letter responds to your request, dated November 8, 2013, for rulings concerning whether certain payments made to employees and certain payments of "pre-dismantlement costs" constitute "nuclear decommissioning costs" as defined in § 468A of the Internal Revenue Code and § 1.468A-1(b)(6) of the Income Tax Regulations. In addition, you ask whether these payments generate a specified liability loss under § 172(f), and if so, what is the earliest taxable year to which such a loss may be carried.

Taxpayer represents the facts and information relating to its request for rulings as follows:

Taxpayer, a corporation, is wholly-owned (through an additional corporation) by Parent. Taxpayer owns a P percent interest in both Plant A and Plant B and is responsible for D percent of the cost of decommissioning each Plant. The Plants are at Location and the amended operating license of Plant A is scheduled to expire on Date 1 and the operating license of Plant B is scheduled to expire on Date 2. On Date 3 Taxpayer notified the Nuclear Regulatory Commission (NRC) that both Plants had permanently ceased operations. With respect to nuclear decommissioning costs that are included in the Taxpayer's cost of service for ratemaking purposes as well as for other matters, Taxpayer is subject to regulation by Commission. Taxpayer maintains a separate Fund for each of the Plants. Commission has authorized collections of amounts for decommissioning from ratepayers and the Service has approved schedules of ruling amounts for contributions to these Funds.

In the transition of the Plants from operational status to a safe shutdown and then to physical dismantlement of the Plants and restoration of the site as required by Commission and the Nuclear Regulatory Commission, the operational workforce of the Plants will be reduced overall. The Taxpayer has broadly described the types of tasks to be performed by employees during the decommissioning process as follows: (1) to plan and design all of the logistical and technical aspects required to take a nuclear power plant from an operational-ready status to safe shutdown and non-operational status to a fully dismantled and restored site; (2) to ensure the safe and orderly transition of the Plants from an operational-ready status to safe shutdown and non-operational status; (3) maintain the Plants in a safe condition during the actual dismantlement of the Plants; and (4) dismantle, remove, and restore the site to its regulatory and legally required condition. When employees are no longer needed for operation and or any phase of the decommission process, those employees are released from service with the Taxpayer. Rules of the Commission allow the collection of decommissioning amounts for the severance and other assistance payments to separated employees who become unemployed as a result of decommissioning.

In addition to the severance payments described above, Taxpayer will incur "pre-dismantlement costs." These costs are described by the Taxpayer broadly as follows: (1) preparation for physical decommissioning of the units; (2) consolidation and restoration of the facilities of the Plants and the site upon which they are located; (3) security for the Plants and the surrounding site; (4) communication with affected communities regarding the permanent retirement of the Plants and plans for decommissioning of the Plants; and (5) staffing costs incurred as a result of the permanent retirement and prior to the commencement of physical dismantlement of major components of the Plants.

For reasons of administrative necessity, many of the costs described above will be paid initially, either by an unrelated company that owns the remainder of Plant A and

Plant B not owned by Taxpayer, or by Taxpayer. These costs will then be reimbursed to the unrelated company or to Taxpayer by the Fund.

Taxpayer requests the following rulings:

(1) Severance payments as described in the Taxpayer's request constitute "nuclear decommissioning costs" within the meaning of § 468A and § 1.468A-1(b)(6), and therefore can be paid out of the Funds for the related Plant.

(2) Pre-dismantlement decommissioning costs as described above constitute "nuclear decommissioning costs" within the meaning of § 468A and § 1.468A-1(b)(6), and therefore can be paid out of the Funds for the related

(3) Reimbursement by the Funds to the unrelated company or to the Taxpayer of severance payments and pre-dismantlement decommissioning costs represent a permissible use of the Funds under § 468A(c)(4) and §§ 1.468A-5(a)(3)(i) and 1.468A-5(b)(2)(i), and is not a prohibited self-dealing transaction under § 1.468A-5(b)(1).

(4) May deductions for the Severance Payments described in Issue 1 and the Pre-Dismantlement Decommissioning Costs described in Issue 2 generate a specified liability loss under § 172(f), and if so, what is the earliest taxable year to which such a loss may be carried?

LAW AND ANALYSIS

Issues 1, 2, and 3

Section 468A(a) was added to the Code in 1984 by Deficit Reduction Act of 1984, Pub. L. No. 98-369. Section 468A(a) allows owners/operators of nuclear power plants to currently deduct the future costs of decommissioning a nuclear power plant by making contributions to a Fund prior to when economic performance occurs.

Section 468A(c)(1) and § 1.468A-2(d)(1) generally require the owner/operator to include in gross income amounts that are distributed from a Fund. In addition to any deduction under section 468A(a) for contributions to a Fund, section 468A(c)(2) recognizes that an owner/operator may deduct otherwise deductible nuclear decommissioning costs, (such as under § 162), for which economic performance (within the meaning of section 461(h)) occurs during a taxable year.

Section 468A(e)(4) limits the use of the amounts in a Fund to satisfying any liability of any person contributing to the Fund for the decommissioning of a nuclear power plant, the payment of administrative and other incidental expenses of the Fund, and making investments.

Section 1.468A-1(b)(6) states, in part, that "nuclear decommissioning costs" means "all otherwise deductible expenses to be incurred in connection with the entombment, decontamination, dismantlement, removal and disposal of the structures, systems and components of a nuclear power plant, whether that nuclear power plant will continue to produce energy or has permanently ceased to produce electric energy. Such term includes all otherwise deductible expenses to be incurred in connection with the preparation for decommissioning, such as engineering and other planning expenses, and all otherwise deductible expenses to be incurred with respect to the plant after the actual decommissioning occurs, such as physical security and radiation monitoring expenses."

Section 162 generally allows a deduction for the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business.

Section 468A(e)(5) provides that, under regulations prescribed by the Secretary, for purposes of § 4951 the Fund shall be treated in the same manner as a trust described in § 501(c)(21). This section is implemented by §1.468A-5(b). Section 1.468A-5(b)(1) states that the excise taxes imposed by § 4951 apply to each act of self-dealing between the Fund and a disqualified person.

In part, § 1.468A-5(b)(2) defines "self-dealing" for purposes of § 468A and the regulations thereunder as any act described in section 4951(d) except: (i) A payment by a nuclear decommissioning fund for the purpose of satisfying, in whole or in part, the liability of the electing taxpayer for decommissioning costs of the nuclear power plant to which the nuclear decommissioning fund relates.

Section 1.468A-5(b)(3) provides that the term "disqualified person" includes each person described in § 4951(e)(4) and § 53.4951-1(d). Section 4951(e)(4) of the Code provides the term "disqualified person," with respect to a trust, includes a contributor to the trust and a trustee of the trust.

Section 1.468A-5(c)(1)(i) provides that if at any time during the taxable year a qualified nuclear decommissioning fund does not satisfy a requirement of section 1.468A-5(a), the Service may, in its discretion, disqualify all or a portion of the fund as of the date that the fund does not satisfy such requirements.

Section 1.468A-5(c)(3) provides that, if all or any portion of a qualified nuclear decommissioning fund is disqualified under section 1.468A-5(c)(1), the portion of the qualified nuclear decommissioning fund that is disqualified is treated as distributed to the electing taxpayer on the date of the disqualification. Such a distribution shall be treated for purposes of section 1001 as a disposition of property held by the qualified nuclear decommissioning fund. In addition, the electing taxpayer must include in gross income for the taxable year that includes the date of disqualification an amount equal to the product of the fair market value of the assets of the fund determined as of the date of disqualification (reduced by certain amounts including any tax that is (1) imposed on

the income of the fund, (2) is attributable to income taken into account before the date of the disqualification or as a result of the disqualification, and (3) has not been paid as of the date of the disqualification) and the fraction of the qualified nuclear decommissioning fund that was disqualified under section 1.468A-5(c)(1).

We have examined the representations and information submitted by the Taxpayer in relation to the requirements set forth in § 468A and the regulations thereunder. Based solely upon these representations of the facts, we conclude that severance payments and pre-dismantlement decommissioning costs are nuclear decommissioning costs within the meaning of § 468A and § 1.468A-1(b)(6). The expenses, as broadly described by Taxpayer, are incurred in connection with the entombment, decontamination, dismantlement, removal, and disposal of the structures, systems, and components of a nuclear power plant. We note that we are not ruling on any particular expense but on broad categories of expense and emphasize that each specific expense must satisfy the tests in § 468A and the regulations thereunder.

Regarding the reimbursement by the Funds of severance payments and predismantlement decommissioning costs, these amounts fall into two groups: (1) those paid initially by the unrelated company and then invoiced to Taxpayer and paid by the Funds and (2) those paid initially by the unrelated company, invoiced and paid by Taxpayer and then reimbursed by the Funds to Taxpayer. In both cases, we conclude that such payments are a permissible use of the Funds and that the reimbursements are within the exception to the self-dealing rules contained in § 1.468A-5(b)(2)(i). That section defines "self-dealing" for purposes of § 468A and the regulations thereunder as any act described in section 4951(d) except "(i) A payment by a nuclear decommissioning fund for the purpose of satisfying, in whole or in part, the liability of the electing taxpayer for decommissioning costs of the nuclear power plant to which the nuclear decommissioning fund relates." Here the reimbursement of severance payments and pre-dismantlement decommissioning costs made by the Funds are made for the purpose of satisfying the liability of Taxpayer for decommissioning costs of the nuclear power plant to which the Fund relates and are therefore not "self-dealing." Thus, the reimbursement by the Funds to the unrelated company or to Taxpayer of severance payments and pre-dismantlement decommissioning costs represent a permissible use of the Funds. This reimbursement constitutes an amount distributed from a Fund as described in § 468A(c)(1) and § 1.468A-2(d)(1). We note that this ruling applies only to reimbursement of the amounts paid for the severance payments and the pre-dismantlement decommissioning costs by the Taxpayer, and not any additional amounts such as "service fees" or any other amounts not solely to reimburse Taxpayer for decommissioning costs actually paid.

Issue 4

Section 172(a) allows a deduction for the taxable year equal to the aggregate of (1) the net operating loss carryovers to such year, plus (2) the net operating loss carrybacks to such year. With certain modifications, § 172(c) defines a net operating

loss as the excess of the deductions allowed by Chapter 1 of the Code over the gross income.

Section 172(b)(1)(A) generally provides that a net operating loss (NOL) for any taxable year is carried back to each of the 2 taxable years preceding the taxable year of the loss and carried forward to each of the 20 taxable years following the year of the loss. However, § 172(b)(1)(C) provides a special carryback period for the portion of any NOL that qualifies as a specified liability loss.

Section 172(f)(1)(B)(i) defines a specified liability loss, in part, as any amount allowable as a deduction under Chapter 1 of the Code (other than §§ 468(a)(1) or 468A(a)) which is in satisfaction of a liability under a federal or state law requiring the decommissioning of a nuclear power plant (or any unit thereof) that is taken into account in computing the NOL for the taxable year. Section 172(f)(1)(B)(ii) provides that a deduction for a liability may only generate a specified liability loss if (I) the act (or failure to act) giving rise to such liability occurs at least 3 years before the beginning of the taxable year, and (II) the taxpayer used an accrual method of accounting throughout the period or periods during which such act (or failure to act) occurred.

Section 172(f)(3) provides that, except as provided in regulations, that portion of a specified liability loss which is attributable to amounts incurred in the decommissioning of a nuclear power plant (or any unit thereof) may, for purposes of subsection (b)(1)(C), be carried back to each of the taxable years during the period (A) beginning with the taxable year in which such plant (or unit thereof) was placed in service, and (B) ending with the taxable year preceding the loss year.

Section 1.446-1(c)(1)(ii)(A) provides that under an accrual method of accounting, a liability is incurred and generally taken into account for federal income tax purposes in the year in which all the events have occurred that establish the fact of the liability, the amount of the liability can be determined with reasonable accuracy, and economic performance has occurred with respect to the liability.

Section 461(h) makes clear that generally the all events test is not treated as having been met any earlier than the taxable year in which economic performance has occurred with respect to a liability. See also section 1.461-4(a)(1) of the regulations.

Section 461(h)(2)(B) provides that in the case of a liability that requires the taxpayer to provide services, economic performance occurs as the taxpayer provides the services. Section 1.461-4(d)(4) of the regulations provides that economic performance occurs with respect to such service liabilities as the taxpayer incurs costs in connection with the satisfaction of the liability.

The phrase "amounts incurred in the decommissioning of a nuclear power plant" should be interpreted to have the same meaning as the term "nuclear decommissioning costs" under § 468A because the relevant language contained in both §§ 172(f)(3) and

468A was added to the Code by the same section of the Tax Reform Act of 1984 (the 1984 Act), and both sections were intended to provide relief to the nuclear power plant industry. See generally H. Rep. No. 861, 98th Cong., 2d Sess. 877 (1984). Accordingly, a taxpayer's expenses in decommissioning the power plants that are deductible under Chapter 1 of the Code are "amounts incurred in the decommissioning of a nuclear power plant" under section 172(f)(3) to the extent they are amounts described in section 1.468A-1(b)(6) of the regulations.

Moreover, the act or failure to act giving rise to such liabilities has occurred at least 3 years prior to the beginning of the taxable year when such liabilities will be deductible. In the case of pre-dismantlement decommissioning costs, the act giving rise to the liability occurred when licenses to operate the Plants were granted and the Plants were placed in service. In the case of the liability for severance payments, the act giving rise to such liability was when State enacted a statute which could be interpreted to allow such costs and the Commission approved such costs as decommissioning expenses. Finally, the Taxpayer uses the accrual method of accounting. Consequently, to the extent deductions for nuclear decommissioning costs generate an NOL, that portion of the NOL will qualify as a specified liability loss as defined in § 172(f).

The remaining issue concerns the taxable years to which such a loss may be carried. As a general rule, § 172(b)(1)(C) allows the unabsorbed portion of a specified liability loss to be carried back to each of the 10 taxable years preceding the taxable year of the loss, with the 10th preceding taxable year being the first year to which the loss is carried. However, as noted above, § 172(f)(3) generally permits the portion of a specified liability loss attributable to nuclear decommissioning expenses to be carried back to each of the taxable years during the period (A) beginning with the taxable year in which such plant (or unit thereof) was placed in service, and (B) ending with the taxable year preceding the loss year.

This special rule for NOLs generated by nuclear decommissioning costs and the economic performance requirements of section 461(h) for accrual method taxpayers were both originally enacted in the same section of the 1984 Act. In adding § 172(k) to the Code, the 1984 Act provided for an extended carryback period for such losses. However, former § 172(k)(4) did not allow carrybacks to taxable years beginning before January 1, 1984, unless the loss could be carried back to those years without the benefit of special rules for deferred statutory or tort liability losses.

In section 11811 of the Omnibus Budget Reconciliation Act of 1990 (the 1990 Act), Congress reorganized the provisions in section 172. Congress placed the 10-year carryback for product liability losses and what had previously been called deferred statutory or tort liability losses under the same subsection of § 172, namely § 172(f), labeling such losses specified liability losses. After striking certain sections of § 172, in section 11811(b)(2)(A) of the 1990 Act Congress enacted a new § 172(f). Included in section 11811(b)(2)(B) of the 1990 Act is the following savings provision which continued the carryback limitation originally contained in the 1984 Act:

The portion of any loss which is attributable to a deferred statutory or tort liability loss (as defined in § 172(k) of the Internal Revenue Code of 1986 as in effect on the day before the date of the enactment of this Act) may not be carried back to any taxable year beginning before January 1, 1984, by reason of the amendment made by subparagraph (A).

In section 3004 of the Tax and Trade Relief Extension Act of 1998 (the 1998 Act), Congress restricted the types of liabilities the deduction of which could generate a specified liability loss to five enumerated liabilities (in addition to product liability losses), including federal or state law liabilities to decommission a nuclear power plant (or any unit thereof). Prior to the 1998 Act, a specified liability loss could be based on any deduction arising out of a federal or state law provided the additional requirements of the statute were satisfied.

In contrast to the prior acts, in the 1998 Act Congress did not enact a savings provision prohibiting the carryback of specified liability losses to any taxable year beginning before January 1, 1984. Plant A was placed in service in Year A, but Plant B was placed in service in Year B. This raises the question of whether the portion of any specified liability loss attributable to expenses to decommission Plant A may be carried back to Year A, a taxable year beginning before January 1, 1984.

In the 1998 Act Congress only amended the definition of a specified liability loss. Congress did not amend the Code sections that addressed the taxable years to which such losses could be carried back. Congress did not amend section 172(f)(3) which contains the special carryback rule for specified liability losses attributable to deductions for nuclear decommissioning costs. Consequently, the savings provision contained in the 1990 Act continues to apply to section 172(f)(3) after the purely definitional changes that Congress made in the 1998 Act. Therefore, the first taxable year that any specified liability loss attributable to decommissioning Plant A may be carried back to is Year B. The first taxable year that the portion of any specified liability loss attributable to decommissioning Plant B may be carried back to is also Year B.

Except as specifically determined above, no opinion is expressed or implied concerning the Federal income tax consequences of the transaction described above. We note that, even though the granting of the license by the NRC is the act giving rise to the liability, the liability is not incurred until economic performance occurs – when the actual decommissioning takes place. The taxpayer may apply § 172(f) after such time.

This ruling is directed only to the Taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. In accordance with the

power of attorney on file with this office, a copy of this letter is being sent to your authorized representatives. We are also sending a copy of this letter ruling to the Director.

Sincerely,

Peter C. Friedman
Senior Technician Reviewer, Branch 6
(Passthroughs & Special Industries)

McDermott
Will & Emery

Boston Brussels Chicago Düsseldorf Frankfurt Houston London Los Angeles Miami
Milan Munich New York Orange County Paris Rome Seoul Silicon Valley Washington, D.C.
Strategic alliance with MWE China Law Offices (Shanghai)

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November 8, 2013

BY HAND DELIVERY

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Internal Revenue Service
Associate Chief Counsel
(Passthroughs & Special Industries)
Attn: CC:PA:LPD:DRU, Room 5336
1111 Constitution Avenue, NW
Washington, DC 20224

Re: San Diego Gas & Electric Company (EIN: 95-1184800)
Ruling Request Under Sections 468A and 172
Regarding Nuclear Decommissioning Costs

Dear Sir or Madam:

On behalf of San Diego Gas & Electric Company (the "Company"), we respectfully request a ruling from the Internal Revenue Service (the "Service") that the term "nuclear decommissioning costs" in section 468A[1] and Treas. Reg. § 1.468A-1(b)(6), and the term "amounts incurred in the decommissioning of a nuclear power plant" in section 172(f), include (i) separation payments made to employees as a result of the permanent retirement and decommissioning of a nuclear power plant, and (ii) certain costs incurred as a result of the permanent retirement of such plant, but prior to the date that physical dismantling of major components of the plant begins. The Company currently maintains separate qualified nuclear decommissioning reserve funds (the "Funds")[2] for Unit Two of the San Onofre Nuclear

[1] All "section" references are to the Internal Revenue Code of 1986, as amended (the "Code"), and all "Treas. Reg. §" references are to the Treasury regulations promulgated thereunder.
[2] Each of the Funds meets the requirements of a qualified nuclear decommissioning reserve fund under section 468A.

Generating Station and associated facilities ("SONGS 2") and for Unit Three of the San Onofre Nuclear Generating Station and associated facilities ("SONGS 3," and together with SONGS 2, the "Units" and each a "Unit"). Subject to a favorable ruling from the Service, the trustee of the Funds may be instructed to disburse assets from the Funds in satisfaction of the separation payments ("Severance Payments"), as described below, and certain costs incurred as a result of the permanent retirement and decommissioning of the Units, but prior to the date that physical dismantling of major components of the plant begins ("Pre-Dismantlement Decommissioning Costs"), as described below.

The Company also requests a ruling from the Service that any reimbursement by the Funds to the Company for the Severance Payments and the Pre-Dismantlement Decommissioning Costs represents a permissible use of the Funds under section 468A(e)(4) and Treas. Reg. §§ 1.468A-5(a)(3)(i) and 1.468A-5(b)(2)(i) and such reimbursement is not a prohibited self-dealing transaction under Treas. Reg. § 1.468A-5(b)(1). In addition, the Company requests a ruling that the Severance Payments and Pre-Dismantlement Decommissioning Costs are specified liability losses under section 172(f), and, to the extent that they are taken into account in computing a net operating loss ("NOL") of the Company in the taxable year incurred, the specified liability losses attributable to the Severance Payments and Pre-Dismantlement Decommissioning Costs are eligible to be carried back to each of the taxable years starting with 1984 and ending with the taxable year preceding the loss.

It is our understanding that the majority owner and operator of the Units, Southern California Edison Company ("SCE" or "Operator"), requested a similar ruling from the Service on similar issues by letter dated August 23, 2013.

I. STATEMENT OF FACTS

A. The Company

The Company (EIN: 95-1184800) is incorporated in the state of California and is wholly owned by Enova Corporation, which is wholly owned by Sempra Energy, a California corporation (EIN 33-0732627) ("Parent"). The Company is principally engaged in the generation, transmission, and distribution of electric energy in southern California.

The Company's principal place of business is 8306 Century Park Court, San Diego, California, 92123. Parent and its affiliated group of corporations, including the Company, electronically file with the Service a consolidated federal income tax return on a calendar year basis using the accrual method of accounting. The Company is under the audit jurisdiction of the Communications, Technology & Media Industry of the Internal Revenue Service.

B. The Units

1. Generally

The Company owns a 20 percent minority interest in and is responsible for 20 percent of the decommissioning liability for each of SONGS 2 and SONGS 3. SCE, which operates the Units, owns a 78.21 percent interest in and is responsible for 76.31 percent of the decommissioning liability for each of SONGS 2 and SONGS 3.[3] Currently, SCE invoices the Company for the Company's 20 percent share of the decommissioning costs for the Units. Payment is due from the Company within 30 days of receipt of an invoice from SCE for such

[3] The City of Riverside owns the remaining 1.79 percent interest in each of SONGS 2 and SONGS 3. In addition, SCE purchased the 3.16 percent interest in each of the Units owned by The City of Anaheim ("Anaheim") on December 29, 2006. However, Anaheim retained 1.9 percent of the decommissioning liability for each of the Units based on the pro rata portion of the Units' lives that Anaheim held an ownership interest. Thus, SCE is responsible for 76.31 percent of the decommissioning liability for the Units.

costs. Thus, the Company will be responsible for 20 percent of the Severance Payments and Pre-Dismantlement Decommissioning Costs, as described herein.

The Units are located on the coast of Southern California in San Diego County. SONGS 2 was placed in service in 1983 and SONGS 3 was placed in service in 1984. The original operating license for SONGS 2 was issued by the Nuclear Regulatory Commission ("NRC") in 1982 and was scheduled to expire on February 16, 2022. The original operating license for SONGS 3 was issued by the NRC in 1982 and was scheduled to expire on November 15, 2022. On June 7, 2013, the Operator formally notified the NRC that it had permanently ceased operations of the Units. As a result, and pursuant to NRC Regulations (10 C.F.R.) § 50.82(a)(2), the operating licenses for the Units no longer authorize operation of the reactors or emplacement or retention of fuel into the reactors vessels.

The Service issued a schedule of deduction amounts and a revised schedule of ruling amounts to the Company dated July 28, 2011 with respect to SONGS 2 (the "SONGS 2 Prior Schedule"). In order to make a special transfer to a qualified nuclear decommissioning reserve fund ("qualified fund") under section 468A, a taxpayer is required to obtain from the Service a schedule of deduction amounts which specifies the annual deductions over the taxable years in the remaining useful life of a nuclear power plant that will result in the deduction of the entire special transfer.[4] A copy of the SONGS 2 Prior Schedule is attached hereto as Exhibit A.

The Service issued a revised schedule of ruling amounts to the Company dated March 23, 2004 with respect to SONGS 3 (the "SONGS 3 Prior Schedule"). A copy of the SONGS 3 Prior

[4] Treas. Reg. § 1.468A-8(c)(1). A request for a schedule of deduction amounts may be combined with a request for a schedule of ruling amounts. *Id.*

Schedule is attached hereto as Exhibit B. The SONGS 2 Prior Schedule and the SONGS 3 Prior Schedule are collectively referred to herein as the "Prior Schedules."

The Company is subject to regulation by the California Public Utilities Commission ("CPUC"). Since the issuance of the Prior Schedules, any change in amounts collected by the Company for decommissioning as a result of subsequent CPUC proceedings has not required the Company to seek revised schedules of ruling amounts under section 468A(d) with respect to the Units. The Company is not currently requesting a revision to the approved schedules of ruling amounts in the Prior Schedules at this time. However, the Company is presently participating in its nuclear decommissioning cost triennial proceeding pending before the CPUC, and depending upon the outcome in that proceeding, the Company may file requests under section 468A for revised schedules of ruling amounts with respect to the Units.

2. Permanent Retirement of the Units

On June 6, 2013, the Company was notified that the Operator had reached a decision to permanently retire SONGS 2 and SONGS 3, and to seek approval to start decommissioning activities for the Units. A copy of the Company's Form 8-K filing with the Securities Exchange Commission ("Commission") dated June 7, 2013, is attached hereto as Exhibit C.

On June 12, 2013, pursuant to 10 C.F.R. § 50.82(a)(1)(i), the Operator formally notified the NRC in a Certification of Permanent Cessation of Power Operations that it had permanently ceased operation of the Units effective as of the Permanent Retirement Date. On June 28, 2013, pursuant to 10 C.F.R. § 50.82(a)(1)(ii), the Operator sent a letter to the NRC certifying that fuel had been removed from SONGS 3. On July 22, 2013, the Operator sent a similar letter certifying

that fuel had been removed from SONGS 2. Copies of the June 12, 2013, June 28, 2013 and the July 22, 2013 letters sent to the NRC by the Operator are attached hereto as Exhibit D.

Pursuant to the terms of 10 C.F.R. § 50.82(a)(2), once the Operator's certifications are docketed by the NRC, the operating licenses for the Units no longer authorize the operation of the reactor or emplacement or retention of fuel in the reactor vessels. In accordance with 10 C.F.R. § 50.82(a)(3), the decommissioning of the Units must be completed within sixty years of the permanent cessation of operations. Thus, the decommissioning period of the Units commenced upon permanent cessation of operations (i.e., the Permanent Retirement Date of June 7, 2013).

3. Staff Reductions After Permanent Retirement and Commencement of the Decommissioning Period

Prior to the Permanent Retirement Date, the Operator of the Units employed approximately 1,500 people in connection with the operation and maintenance of the Units. The Company employed three people in connection with the Units. The process of safely taking the Units from an operational-ready status to a non-operational decommissioning status as a result of the permanent retirement will require a reduction in the workforce for the Units by approximately 1100 employees. The Company does not plan to reduce its current workforce at the Units; however, as noted above, the Company will be responsible for 20 percent of the costs of the reduction of the workforce consistent with its ownership percentage in the Units.

The Operator's employees affected by the permanent retirement of the Units will include: (i) employees who work on-site at the Units and who are involved in the safe and orderly process of taking the Units from its operational-ready status to a non-operational decommissioning status

(the "On-Site Pre-Dismantlement Employees"); (ii) employees who work off-site from the Units and provide logistical support and service to the Units during the safe and orderly decommissioning of the Units from operational-ready status to a non-operational decommissioning status, and throughout the physical dismantling process (the "Off-Site Support Employees"); and (iii) employees who will remain on-site at the Units throughout the physical dismantling process ("On-Site Dismantling Employees"). The Operator has already separated On-Site Pre-Dismantlement Employees and certain Off-Site Support Employees. By the time the Units are dismantled and removed from the site, and the site is restored to its required conditions, the On-Site Dismantling Employees and remaining Off-Site Support Employees will also be separated.

4. Nuclear Decommissioning Cost Studies

Section 8323 of the California Public Utilities Code ("California Pub. Util. Code") requires regulated utilities, such as the Company, to establish rates for the collection of funds necessary for the future nuclear decommissioning of its Units. As part of the process of establishing estimated decommissioning costs, the Operator has utilized the nuclear industry consulting services of ABZ, Incorporated ("ABZ") to prepare decommissioning cost estimates that were used to establish nuclear decommissioning costs in rates approved in decisions by the CPUC. The Company used a Decommissioning Cost Estimates prepared by ABZ dated October 2001 (the "2001 Decommissioning Cost Estimate") and a Decommissioning Cost Estimated prepared by ABZ dated July 2005 (the "2005 Decommissioning Cost Estimate") as the bases for its requests to the CPUC for the authority to collect nuclear decommissioning costs in rates. The Company also used the ABZ decommissioning cost estimates, along with the decisions by the

CPUC based on such estimates, in its prior requests for schedules of ruling amounts from the Service under section 468A. The 2001 Decommissioning Cost Estimate and the 2005 Decommissioning Cost Estimate are attached hereto as Exhibit E and Exhibit F, respectively.

In obtaining the Prior Schedules, the Company submitted CPUC Decisions 07-01-003,[5] and 03-10-015[6] (the "Prior CPUC Decisions"). The assumptions used in the Prior CPUC Decisions were based on the 2001 Decommissioning Cost Estimate and the 2005 Decommissioning Cost Study. Both the 2001 Decommissioning Cost Estimate and the 2005 Decommissioning Cost Estimate included severance payments and activity costs consistent with the Severance Payments and Pre-Dismantlement Decommissioning Costs described herein. Copies of the relevant pages from the detailed cost schedules relating to the decommissioning of the Units for the 2001 Decommissioning Cost Study (the "2001 Supporting Schedules") are attached hereto as Exhibit G-1 and Exhibit G-2, for SONGS 2 and SONGS 3, respectively. Copies of the relevant pages from the detailed cost schedules relating to the decommissioning of the Units for the 2005 Decommissioning Cost Study (the "2005 Supporting Schedules") are attached hereto as Exhibit H-1 and Exhibit H-2, for SONGS 2 and SONGS 3, respectively.

For the Company's current nuclear decommissioning cost triennial proceeding, ABZ prepared a Decommissioning Cost Estimate 2013 Scenario in connection with the permanent retirement of the Units in 2013, dated July 11, 2013, and attached hereto as Exhibit I (the "2013 Decommissioning Cost Estimate").[7] The Company's share of the total estimated

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[5] D.07-01-003, dated January 11, 2007, in Application 05-11-008.
[6] D.03-10-015, dated October 2, 2003, in Application 02-03-039.
[7] The 2013 Decommissioning Estimate is an update of the Decommissioning Cost Estimate prepared by ABZ dated December 14, 2012, which reflected a retirement of the Units in 2022. *See* Exhibit I, pages 3-4.

decommissioning cost for each Unit (in 2011 dollars) is its 20 percent responsibility for the decommissioning liability for each Unit. The 2013 Decommissioning Cost Estimate includes the Severance Payments and Pre-Dismantlement Decommissioning Costs described herein. Copies of the relevant pages from the detailed cost schedules relating to the decommissioning of the Units from the 2013 Decommissioning Cost Estimate (the "2013 Supporting Schedules") are attached hereto as Exhibit J-1 and J-2, for SONGS 2 and SONGS 3, respectively.

C. Nature of the Request

1. Severance Payments

In order to fully decommission, dismantle, and remove a nuclear power plant, and to also restore the site to its regulatory and legally required condition, highly skilled and knowledgeable personnel will be required throughout the entire process to ensure that all of these activities are performed in a safe and orderly manner and in accordance with regulatory and other legal requirements. As part of the decommissioning process, personnel are needed to: (1) plan and design all of the logistical and technical aspects required to take a nuclear power plant from an operational-ready status to a fully dismantled and restored site; (2) ensure the safe and orderly transition of the plant from an operational-ready status to a non-operational decommissioning status; (3) maintain the plant in a safe condition during the actual dismantling of the unit; and (4) dismantle, remove and restore the site to the condition required by laws and regulation. All of the costs associated with providing these services are required as part of the decommissioning process. As an owner of a 20 percent minority interest in the Units, as noted above, the Company will be invoiced by the Operator for its 20 percent share of the Operator's relevant

personnel-related costs incurred during the decommissioning of the Units. These costs will include payments to the Operator's On-Site Pre-Dismantlement Employees, Off-Site Support Employees, and On-Site Dismantling Employees in their capacities associated with providing the services described above as part of the decommissioning process. During the decommissioning process, the Operator will also pay its On-Site Pre-Dismantlement Employees for decommissioning planning and for the safe and orderly transition of the Units from their operational-ready status to a safe shutdown non-operational status. The Operator will also pay its Off-Site Support Employees for providing logistical support to personnel during the decommissioning process of taking the Units from their operational-ready status to a safe shutdown non-operational status, and from a safe shutdown non-operational status to a fully dismantled and restored site. The Operator will also pay its On-Site Dismantling Employees for any decommissioning planning, maintaining the plant in a safe state of condition during the decommissioning process, and dismantling and restoring the site.

As each of these decommissioning processes are completed by the three categories of employees (i.e., On-Site Pre-Dismantlement Employees, Off-Site Support Employees and On-Site Dismantling Employees) and other personnel (i.e., contractors), the Company anticipates that many of the Operator's employees and contractors will be released from their services. Included in these costs for services performed by employees in their respective decommissioning process will be Severance Payments, which include one-time payments and medical and outplacement related services. These Severance Payments are made consistent with the California Pub. Util. Code requirements for the decommissioning of nuclear facilities. Section

8322(g) of the California Pub. Util. Code states that "[d]ecommissioning nuclear facilities causes electric utility employees to become unemployed through no fault of their own, and these employees are entitled to reasonable job protection the costs of which are properly includable in the costs of decommissioning." In addition, Section 8330 of the California Pub. Util. Code states:

> Every electrical utility involved in decommissioning, closure, or removal of nuclear facilities, shall provide assistance in finding comparable alternative employment opportunities for its employees who become unemployed as the result of decommissioning, closure, or removal. The commission or the board shall authorize the electrical utility to collect sufficient revenue through electric rates and charges to recover the costs, if any, of compliance with this section.

The Company has complied with the decommissioning requirements of the California Pub. Util. Code for purposes of collecting amounts for its Funds, and, as noted above, the Company will be responsible for its 20 percent share of Severance Payments for the Operator's employees throughout the decommissioning process.

2. Pre-Dismantlement Decommissioning Costs

The Operator is currently incurring Pre-Dismantlement Decommissioning Costs related to the process of taking its Units, after the commencement of the decommissioning period on the Permanent Retirement Date (pursuant to 10 C.F.R. § 50.82(a)(3)), from an operational-ready status to a non-operational decommissioning status just prior to the commencement of the physical dismantling of major components of the Units. The Company will be invoiced by the Operator for its 20 percent share of such Pre-Dismantlement Decommissioning Costs. These Pre-Dismantlement Decommissioning Costs include costs related to (1) planning and designing the logistical and technical aspects required to take the Units from an operational-ready status to

a fully dismantled and restored site, (2) ensuring the safe and orderly transition of the plants from an operational-ready status through to a non-operational decommissioning status, and (3) maintaining the plants in a safe condition prior to the physical dismantling of the major components of the Units.

Costs that will qualify as Pre-Dismantlement Decommissioning Cost activities can be grouped into several categories including, but not limited to: (1) preparation for physical decommissioning of the Units; (2) consolidation and restoration of the facilities comprising SONGS 2 and SONGS 3 and the site upon which they are located; (3) security for the Units and the surrounding site; (4) communication with affected communities regarding the permanent retirement of the Units and plans for the physical decommissioning of the Units; and (5) staffing costs incurred as a result of the permanent retirement and prior to the commencement of physical dismantlement of major components of the Units. Some specific examples of these costs include:

1. Preparation for Physical Dismantlement

   - Planning for decommissioning and managing the safe shutdown of the Units by various teams of Operator and Company personnel;
   - Removing fuel from the Units;
   - Flushing, draining and de-energizing various systems of the Units;
   - Removing oil and chemicals from the Units; and
   - Terminating supply and other contracts, implementing regulatory requirements and modifying the performance evaluation criteria and corrective action program for the Units.

2. Consolidation and Restoration

- Reducing inventory and reducing and terminating plant modification projects;
- Relocating administration building(s), warehouse, information technology and telecom facilities and related personnel;
- Demolishing unnecessary administrative, petrol and non-radioactive waste facilities and restoring affected areas as required by related leases or regulatory authorities;
- Reducing the transportation pool; and
- Adjusting maintenance projects and procedures for the Units.

3. Security

- Increasing security personnel due to reduced operating personnel on site.

4. Communication

- Circulating information about the changes at the Units to surrounding residents and businesses; and
- Liaising with appropriate community groups and local governing bodies.

5. Staffing

- Paying salaries and benefits to remaining employees and consultants supporting the above described decommissioning process; and
- Paying fees associated with modifications to collective bargaining agreements caused by the permanent shutdown of the Units.

6. Tax, Insurance and Lease Payments

- Paying property taxes, insurance and lease payments with respect to the Units.

Although the foregoing list is extensive, it is only intended to illustrate the types of Pre-Dismantlement Decommissioning Costs, and is not all-inclusive.

3. Reimbursement from the Funds

Pending the Service's ruling in this request, the Company will use its general funds to make payments on invoices from SCE in connection with its 20 percent share of any Severance Payments and Pre-Dismantlement Decommissioning Costs. However, upon receipt of a favorable ruling from the Service on the issues addressed herein, the Company will seek reimbursement from the Funds with respect to such payments, or the Company will direct the Funds to make payments on invoices in connection with the Company's share of any Severance Payments and Pre-Dismantlement Decommissioning Costs directly to SCE or the party hired to decommission the Units (the "Decommissioning Agent").

II. RULINGS REQUESTED

With respect to costs incurred in connection with the permanent retirement and decommissioning of the Units, the Company respectfully requests that the Service issue the following rulings:

1. Severance Payments constitute "nuclear decommissioning costs" within the meaning of section 468A and Treas. Reg. § 1.468A-1(b)(6), and therefore can be paid out of the Funds for their related Units;

2. Pre-Dismantlement Decommissioning Costs incurred on or after the Permanent Retirement Date constitute "nuclear decommissioning costs" within the meaning of section 468A and Treas. Reg. § 1.468A-1(b)(6), and therefore can be paid out of the Funds for their related Units;

3. Reimbursement by the Funds to the Company or SCE of Severance Payments and Pre-Dismantlement Decommissioning Costs represents a permissible use of the Funds under

section 468A(e)(4) and Treas. Reg. §§ 1.468A-5(a)(3)(i) and 1.468A-5(b)(2)(i), and is not a prohibited self-dealing transaction under Treas. Reg. § 1.468A-5(b)(1); and

4. Severance Payments and Pre-Dismantlement Decommissioning Costs are specified liability losses under section 172(f), and to the extent that they are taken into account in computing a NOL of the Company in taxable years 2013 and beyond, the specified liability losses attributable to the Severance Payments and Pre-Dismantlement Decommissioning Costs are eligible to be carried back to each of the taxable years starting with 1984 and ending with the taxable year preceding the loss year.

III. STATEMENT OF LAW AND DISCUSSION

A. Section 468A – Definition of "Nuclear Decommissioning Costs"

Section 468A provides a deduction for amounts contributed to a qualified fund. Section 468A(e)(4) and Treas. Reg. § 1.468A-5(a)(3)(i) provide that the assets of a qualified fund can only be used to (i) satisfy, in whole or in part, the liability of the electing taxpayer for decommissioning costs of the nuclear power plant to which the nuclear decommissioning fund relates; (ii) pay administrative costs and other incidental expenses of the nuclear decommissioning fund; and (iii) the extent that the assets of the qualified fund are not currently required for the purposes described in paragraph (i) or (ii), to make investments.

The term "nuclear decommissioning costs" is defined in Treas. Reg. § 1.468A-1(b)(6), and includes:

> [A]ll otherwise deductible expenses to be incurred in connection with the entombment, decontamination, dismantlement, removal and disposal of the structures, systems and components of a nuclear power plant, whether that nuclear power plant will continue to produce electric energy or has permanently ceased to produce electric energy. *Such term includes all otherwise deductible expenses to*

> *be incurred in connection with the preparation for decommissioning, such as engineering and other planning expenses*, and all otherwise deductible expenses to be incurred with respect to the plant after the actual decommissioning occurs, such as physical security and radiation monitoring expenses.

(Emphasis added.) There is no additional guidance in the Code, related Treasury Regulations, and other formal guidance issued by the Service providing further specifics on the definition of "nuclear decommissioning costs." However, the "emphasis added" portion highlighted in the definition above indicates a reasonable allowance for nuclear decommissioning costs to include costs that are "in connection with the preparation for decommissioning" and for "other planning expenses." As such, "preparation for decommissioning" should include costs associated with safely and systematically bringing a nuclear unit, after its permanent retirement and during its decommissioning period pursuant to 10 C.F.R. § 50.82(a), from an operational-ready status to the point that the physical dismantling of the unit may begin. "Other planning expenses" should include planning and designing all of the logistical and technical aspects required to take a nuclear power plant from an operational-ready status to a fully dismantled and restored site.

The Service recognized the broad interpretation of the term "nuclear decommissioning costs" in Chief Counsel Advice 200931007[8] ("CCA") and recognized the importance of the role of the public utility commission in the determination of what constitutes decommissioning costs for purposes of section 468A.[9] In the CCA, the Service stated that the regulation "has always been given a broad reading." The Service further stated that the broad interpretation of nuclear decommissioning costs encompasses costs incurred to remove components while the plant

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[8] Mar. 11, 2009.

[9] The Treasury regulation citations in the CCA are to the temporary regulations issued in T.D. 9374, 72 Fed. Reg. 74175 (Dec. 28, 2007). As noted above, the definition in Treas. Reg. § 1.468A-1(b)(6) expanded and clarified the definition of "nuclear decommissioning costs" that was contained in former Treas. Reg. § 1.468A-1(b)(5).

remains operational "is in accord with the generally understood meaning of [nuclear decommissioning costs] as used by public service commissions or other regulators of the nuclear industry in calculating the amount that utilities are allowed to recover from taxpayers." Moreover, the Service explicitly rejected a narrow interpretation of the predecessor to Treas. Reg. § 1.468A-1(b)(6) in the CCA, stating that it recognized that the predecessor regulation "can be read more strictly, . . . and that the ambiguity in those regulations may cause uncertainty. However, we believe that the conclusion reached herein is more in concert with the principles underlying 468A and the common practice of the nuclear industry." This broad interpretation should equally apply to a nuclear power plant that has permanently ceased operations. The Service also recognized the broad interpretation of nuclear decommissioning costs in Private Letter Ruling 200711015,[10] stating that such costs are "defined broadly to include expenses incurred before, during, and after the actual decommissioning process of the nuclear power plant that has ceased operations."

Treas. Reg. § 1.468A-3 requires taxpayers to receive a schedule of ruling amounts from the Service before the taxpayers may deduct contributions made to a qualified nuclear decommission fund. Treas. Reg. § 1.468A-5(a)(3)(A) limits the assets in a qualified nuclear decommissioning fund to only amounts that would be used exclusively to satisfy, in whole or part, the liability of the taxpayer's "decommissioning costs" of the nuclear power plant. In determining whether the schedule of ruling amounts provides sufficient funding for a taxpayer's nuclear decommissioning costs, Treas. Reg. § 1.468A-3(a)(4) states that the "taxpayer bears the burden of demonstrating that the proposed schedule of ruling amount is consistent with the

[10] Nov. 30, 2006.

principles and provisions of this section and is based on reasonable assumptions." Thus, the taxpayer must demonstrate that its proposed nuclear decommissioning costs are reasonable and consistent with the principles of section 468A. The regulation states further that if "a public utility commission established or approved the currently applicable rates for the furnishing or sale by the taxpayer of electricity from the plant, the taxpayer can generally satisfy this burden of proof by demonstrating that the schedule of ruling amounts is calculated using the assumptions used by the public utility commission in its most recent order."

In establishing its Prior Schedules approved by the Service for both SONGS 2 and SONGS 3, the Company submitted with its ruling request the Prior CPUC Decisions that authorized applicable rates for the furnishing by the Company of electricity from its Units. These rates have been calculated to include the collection of funds for severance payments and activity costs consistent with the Severance Payments and the Pre-Dismantlement Decommissioning Costs described in this ruling request.[11]

The 2001 Decommissioning Cost Estimate and the 2005 Decommissioning Cost Estimate, citing to the California Pub. Util. Code, stated that the estimated decommissioning costs included "staff termination costs for displaced [Company] personnel after permanent cessation of operations, and after termination of decommissioning projects . . .."[12]

The Severance Payments resulting from the permanent retirement of the Units and the Pre-Dismantlement Decommissioning Costs each represents a type of cost that the CPUC has

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[11] *See* the 2001 Supporting Schedules, Exhibit G-1 and Exhibit G-2; the 2005 Supporting Schedules, Exhibit H-1 and Exhibit H-2.

[12] *See* Exhibit E, page 14 and Exhibit F, page 15. The SONGS 2 Prior Schedule was calculated based on the 2005 Decommissioning Cost Estimate and the SONGS 3 Prior Schedule was calculated based on the 2001 Decommissioning Cost Estimate. Both estimates incorporated staff termination costs.

previously approved as part of a decommissioning cost estimate, consistent with California Pub. Util. Code Sections 8321 through 8330. The costs are also consistent with the definition of decommissioning and the principles of section 468A and its related regulations.

B. The California Pub. Util. Code

The California Pub. Util. Code provides the framework for the safe and prudent decommissioning of nuclear power plants located in California, and provides the CPUC with the authority to allow electrical corporations to collect sufficient revenue in rates to recover such costs.[13] The ability to collect costs related to decommissioning under the California Pub. Util. Code, combined with section 468A, allows taxpayers to make tax deductible contributions into qualified funds for the decommissioning of related plants. If the decommissioning of a nuclear power plant "causes electric utility employees to become unemployed through no fault of their own, . . . [then] these employees are entitled to reasonable job protection," and the California Pub. Util. Code provides that such costs shall be "includable in the costs of decommissioning."[14] Furthermore, the California Pub. Util. Code also provides that an electric utility that is involved in the decommissioning, closure, or removal of a nuclear power plant "shall provide assistance in finding comparable alternative employment opportunities for its employees who become unemployed as the result of decommissioning, closure, or removal."[15]

As noted above, California Pub. Util. Code Section 8322(g) provides that costs incurred in connection with the decommissioning of a nuclear power plant related to employees who become unemployed as a result of the decommissioning are treated as decommissioning costs.

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[13] CAL. PUB. UTIL. CODE § 8330.
[14] CAL. PUB. UTIL. CODE § 8322(g).
[15] CAL. PUB. UTIL. CODE § 8330.

In addition, California Pub. Util. Code Section 8330 provides that the CPUC shall authorize a utility to collect monies from customers to recover costs associated with assisting employees affected by a nuclear power plant closure or decommissioning to find alternative employment opportunities. The California Pub. Util. Code grants authority to the CPUC to include severance payments in decommissioning costs recoverable from customers.[16] The Service has acknowledged in its rulings, and consistent with Treas. Reg § 1.468A-3(a)(4), that it will follow the guidance of public service commissions such as the CPUC in determining whether certain costs are nuclear decommissioning costs for purposes of section 468A. For example, in the CCA, the Service recognized the role that public service commissions play in calculating the amount of decommissioning costs that utilities are allowed to recover from ratepayers. The Severance Payments described above are consistent with the California Pub. Util. Code, as authorized by the CPUC. For this reason, the Service should treat the Severance Payments consistent with the California Pub. Util. Code and the determinations of the CPUC and conclude that the Severance Payments are "nuclear decommissioning costs" for purposes of section 468A.

Accordingly, the Company's share of Severance Payments and Pre-Dismantlement Decommissioning Costs incurred by the Operator in connection with the permanent retirement of the Units should be treated as "nuclear decommissioning costs" under section 468A and Treas. Reg. § 1.468A-1(b)(6). Therefore, such Severance Payments and Pre-Dismantlement Decommissioning Costs can be paid out of the Funds for the Units

[16] CAL. PUB. UTIL. CODE § 8330.

C. Section 468A – Self-Dealing and Consequences of Self-Dealing

Section 468A and the regulations thereunder prohibit a qualified fund from engaging in certain self-dealing activities with a disqualified person. Section 468A(e)(5) and Treas. Reg. § 1.468A-5(b) provide that an act of self-dealing with respect to a qualified fund is any *direct* or *indirect act* described in section 4951(d) between the qualified fund and a disqualified person.

Section 4951(d)(1) defines "self-dealing" as including, among others, the following acts engaged in between a qualified fund and a disqualified person: (i) the lending of money or other extension of credit, (ii) the payment of compensation (or reimbursement of expenses), and (iii) the transfer to, or use by or for the benefit of, the income or assets of the trust.[17] Section 4951(e)(4) defines a "disqualified person" as including, among others, a contributor to the trust.[18]

However, Treas. Reg. § 1.468A-5(b)(2) provides for certain exceptions from the self-dealing rules such that if a qualified fund and a disqualified person engage in one of these acts, such act will not constitute an act of self-dealing. One such exception is a payment by a qualified fund for the purpose of satisfying, in whole or in part, the liability of the electing taxpayer for decommissioning costs of the nuclear power plant to which the qualified fund relates.[19]

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[17] Other acts of self-dealing described in section 4951(d)(1) include (i) the sale, exchange, or lease of real or personal property and (ii) the furnishing of goods, services, or facilities.

[18] The statute also provides that a "disqualified person" includes: (i) a trustee of the trust; (ii) an owner of more than 10 percent of the total combined voting power of a corporation, the profits interest in a partnership, or the beneficial interest of a trust or unincorporated enterprise that is a contributor to the trust; (iii) an officer, director, or employee of a person who is a contributor to the trust; (iv) a corporation in which persons described section 4951(e)(4)(A)-(D) own more than 35 percent of the total combined voting power; (v) a partnership in which persons described in section 4951(e)(4)(A)-(D) own more than 35 percent of the profits interest; and (vi) a trust in which persons described in section 4951(e)(4)(A)-(D) own more than 35 percent of the beneficial interest.

[19] Treas. Reg. § 1.468A-5(b)(2)(i). Other exceptions to the self-dealing rules, which are not applicable in this instance, are described in Treas. Reg. § 1.468A-5(b)(2).

As described above in this ruling request, the Severance Payments and the Pre-Dismantlement Decommissioning Costs are treated as "nuclear decommissioning costs" under section 468A and Treas. Reg. § 1.468A-1(b)(6). Thus, the reimbursement by the Funds to the Company (or directly to SCE or the Decommissioning Agent) of "nuclear decommissioning costs" such as the Severance Payments and Pre-Dismantlement Decommissioning Costs satisfies the exception under Treas. Reg. § 1.468A-5(b)(2). Therefore, the reimbursement by the Funds to the Company (or directly to SCE or the Decommissioning Agent) of Severance Payments and Pre-Dismantlement Decommissioning Costs should constitute a permissible use of the Funds under section 468A(e)(4) and Treas. Reg. §§ 1.468A-5(a)(3)(i) and 1.468A-5(b)(2)(i), and should not be a prohibited self-dealing transaction under Treas. Reg. § 1.468A-5(b)(1).

D. Section 172(f) – Specified Liability Losses

Under section 172, an NOL generally can be carried back two years and carried forward 20 years. However, if the NOL is a "specified liability loss," the loss can be carried back 10 years.[20]

Section 172(f)(1) defines a "specified liability loss" as including certain amounts to the extent they are taken into account in computing a NOL for a taxable year. An item that may be included as a specified liability loss is any amount that is allowable as a deduction under chapter 1 of the Code (other than Section 468(a)(1) or 468A(a)) which is in satisfaction of a liability

[20] Section 172(b)(1)(C).

under a federal or state law requiring the decommissioning of a nuclear power plant (or a unit thereof).[21] Section 172(f)(1)(B)(ii) provides that a liability shall be taken into account only if –

> (I) the act (or failure to act) giving rise to such liability occurs at least 3 years before the beginning of the taxable year, and
>
> (II) the taxpayer used an accrual method of accounting throughout the period or period during which such act (or failure to act) occurred.

In any event, the amount of a specified liability loss for any taxable year cannot exceed the amount of the NOL for such year.[22] The act (or failure to act) that gives rise to liabilities for decommissioning a nuclear power plant arises in the year in which the plant's operating license is granted.[23]

Section 172(f)(3) further extends the normal 10 year carryback period for specified liability losses attributable to amounts incurred in decommissioning a nuclear power plant or a unit thereof. Specifically, such losses can be carried back to each of the taxable years beginning with the later of taxable year 1984 or the taxable year in which the plant or unit was "placed in service." Section 172(f)(3) does not have a provision that limits specified liability losses attributable to nuclear decommissioning costs from being carried back to a taxable year prior to 1984. However, such language appears in the enacting statute that led to the enactment of

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[21] Section 172(f)(1)(B)(i)(II). Other items includable as a specified liability loss include (i) amounts allowable as a deduction under section 162 or 165 which are attributable to product liability or expenses incurred in the investigation or settlement of, or opposition to, claims against the taxpayer on account of product liability, and (ii) amounts allowed as a deduction which are in satisfaction of a liability under a Federal or state law requiring – (a) the reclamation of land, (b) the dismantlement of a drilling platform, (c) the remediation of environmental contamination, or (d) a payment under any workers compensation act (within the meaning of section 461(h)(2)(C)(i)).

[22] Section 172(f)(2).

[23] *See* PLR 200711015, *supra* note 10. In the ruling, the taxpayer incurred nuclear decommissioning costs in Year 1. The Service stated that the taxpayer's nuclear decommissioning costs "were incurred during the Year 1 tax year, which was more than 3 years after the licenses to operate the plants were granted and the liabilities arose." Thus, the Service ruled that the taxpayer satisfied all of the section 172(f) requirements and that the taxpayer's NOL attributable to the nuclear decommissioning costs qualify as section 172(f) specified liability losses.

section 172(f)(3).[24] Therefore, such limitation is applicable and specified liability losses attributable to nuclear decommissioning costs cannot be carried back to a taxable year prior to 1984.

As discussed above in this ruling request, the Severance Payments and Pre-Dismantlement Decommissioning Costs are "nuclear decommissioning costs" under section 468A and Treas. Reg. § 1.468A-1(b)(6). In several private letter rulings, the Service recognizes the nexus between "nuclear decommissioning costs" for purposes of section 468A and "amounts incurred in the decommissioning of a nuclear power plant" for purposes of section 172(f).

For example, in Private Letter Ruling 9409011,[25] the Service stated:

> The phrase "amounts incurred in the decommissioning of a nuclear power plant" should be interpreted to have the same meaning as the term "nuclear decommissioning costs" under section 468A because both sections 172(f)(3) and 468A were added to the Code in 1984, and both sections were intended to provide relief to the nuclear powerplant industry. See generally H. Rep. No. 861, 98th Cong., 2d Sess. 877 (1984). Accordingly [taxpayer's] expenses in decommissioning the power plant that are deductible under chapter 1 of the Code are "amounts incurred in the decommissioning of a nuclear power plant" under

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[24] Section 172(f)(3) regarding specified liability losses attributable to nuclear decommissioning costs was added to the Code by Section 11811(b)(2)(A) of the Omnibus Budget Reconciliation Act of 1990, P.L. 101-508 (Nov. 5, 1990) (the "1990 Act"). Section 11811 of the 1990 Act eliminated and redesignated certain provisions of section 172. Specifically, Section 11811(b)(1) of the 1990 Act eliminated subsections (g), (h), (i), and (k) from section 172, and redesignated subsections (j), (l), (m), and (n) as, respectively, subsections (f), (g), (h), and (i). Section 11811(b)(2)(A) of the 1990 Act then amended redesignated section 172(f) to provide rules relating to specified liability losses. Prior to its amendment, redesignated section 172(f) (former section 172(j)) provided rules relating to product liability losses, but did not contain special rules relating to losses attributable to decommissioning a nuclear power plant. Additionally, Section 11811(b)(2)(B) of the 1990 Act provides:

> The portion of any loss which is attributable to a deferred statutory or tort liability loss (as defined in section 172(k) of the Internal Revenue Code of 1986 as in effect on the day before the date of the enactment of [the 1990 Act]) *may not be carried back to any taxable year beginning before January 1, 1984, by reason of the amendment made by [Section 11811(b)(2)(A)].*

(Emphasis added.)

[25] Nov. 24, 1993.

> section 172(f)(3) of the Code to the extent they are amounts described in section 1.468A-1(b)(5)[26] of the regulations

(Emphasis added.) Similarly, in Private Letter Ruling 200711015,[27] the Service examined costs associated with (i) storing spent nuclear fuel assemblies onsite, (ii) purchasing canisters for such storage, (iii) operating and securing independent spent fuel storage installation facilities, and (iv) removing steam generators and reactor vessel heads, and stated:

> As discussed above, the costs described herein are nuclear decommissioning costs under §1.468A-1(b)(5). *Thus, such costs are amounts incurred in the decommissioning of a nuclear power plant under § 172(f).*

(Emphasis added.)

Accordingly, because the Severance Payments and Pre-Dismantlement Decommissioning Costs are "nuclear decommissioning costs" for purposes of section 468A, they are costs "incurred in the decommissioning of a nuclear power plant," eligible for extended carryback treatment under section 172(f) if the other requirements of section 172 are satisfied.

The Severance Payments and Pre-Dismantlement Decommissioning Costs are deductible as ordinary and necessary business expenses under section 162 or as abandonment losses under section 165. Therefore, they satisfy the requirement of section 172(f)(1)(B)(i) that they be deductible under chapter 1 of the Code (other than section 468(a) or 468A(a)).

Further, the Severance Payments and Pre-Dismantlement Decommissioning Costs are incurred at least three years after the NRC issued operating licenses for the Units,[28] which gave rise to these decommissioning liabilities. Finally, the Company has used and is using the accrual

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[26] Treas. Reg. § 1.468A-1(b)(6) now embodies earlier Treas. Reg. §1.468A-1(b)(5).
[27] *Supra*, note 10.
[28] 1982 for both Units.

method of accounting for all relevant taxable years. Therefore the Severance Payments and Pre-Dismantlement Decommissioning Costs satisfy the requirements of section 172(f)(1)(B)(ii).

SONGS 2 was placed in service in 1983 and SONGS 3 was placed in service in 1984. Accordingly, to the extent that the Severance Payments and Pre-Dismantlement Decommissioning Costs are taken into account in computing a NOL of the Company in taxable years 2013 and beyond, they are eligible as specified liability losses to be carried back to each of the taxable years starting with 1984 and ending with the taxable year preceding the loss year.

IV. PROCEDURAL MATTERS

A. Revenue Procedure 2013-1 Statements

1. The Company represents that, to the best knowledge of the Company and the Company's representatives, no earlier return of the Company (or of a related taxpayer within the meaning of section 267 or of a member of an affiliated group of which the Company is also a member within the meaning of section 1504) that would be affected by the requested letter ruling is under examination, before Appeals, or before a Federal court.

2. The Company represents that, to the best knowledge of the Company and the Company's representatives, the Service has not previously ruled on the same or a similar issue for the Company (or a related taxpayer within the meaning of section 267 or of a member of an affiliated group of which the Company is also a member within the meaning of section 1504) or a predecessor.

3. The Company represents that, to the best knowledge of the Company and the Company's representatives, none of the Company, a related taxpayer of the Company, a predecessor of the Company, or any representative of the Company has previously submitted a

request (including an application for change in accounting method) involving the same or a similar issue to the Service and withdrawn the same before a ruling was issued.

4. The Company represents that, to the best knowledge of the Company and the Company's representative, none of the Company, a taxpayer related to the Company, or a predecessor of the Company has previously submitted a request (including an application for change in accounting method) involving the same or a similar issue to the Service in a ruling request which is currently pending with the Service.

5. The Company represents that, to the best knowledge of the Company and the Company's representatives, none of the Company, a taxpayer related to the Company, or a predecessor of the Company, at the same time of this request, is presently submitting another ruling request (including an application for change in accounting method) involving the same or a similar issue to the Service.

6. The law in connection with this ruling request is certain, and the issues discussed herein are adequately addressed by relevant authorities.

7. The Company represents that the Company and the Company's representatives have no knowledge as to any legislation or pending legislation, Treasury Regulations, revenue rulings, revenue procedures, court decision, or other authority that are contrary to the position advanced in this ruling request.

8. A conference on the issues involved in this ruling is hereby respectfully requested in the event that you reach a tentative adverse conclusion.

9. If you have any questions or need additional information regarding this ruling request, pursuant to the enclosed Power of Attorney, please contact Martha G. Pugh at (202) 756-8368.

10. The Company hereby requests that any document related to this request, including the ruling itself, and any written requests for additional information be sent by facsimile transmission (in addition to being mailed) and waive any disclosure violation resulting from such facsimile transmission. Please fax the ruling and any written requests to Ms. Pugh at (202) 756-8087. Please mail the ruling and any written requests to Martha G. Pugh, McDermott Will & Emery LLP, 500 North Capitol Street, N.W., Washington, DC, 20001.

B. Administrative

The following are enclosed:

1. A check payable to the Internal Revenue Service in the amount of $18,000.00 in payment for the user fee for this request as set forth in Appendix A of Revenue Procedure 2013-1.

2. The required penalties of perjury statements.

3. The deletions statement required by Revenue Procedure 2013-1.

4. The checklist as required by Revenue Procedure 2013-1.

5. A Power of Attorney.

Sincerely,

Martha Groves Pugh