B.1 Brief Description of Work and Placement of Work Information

Southwest Research Institute (SwRI or Contractor) shall perform all work required by the Nuclear Regulatory Commission (NRC) within the purpose, scope, mission, and/or special competency of the Center for Nuclear Waste Regulatory Analyses (CNWRA) as described under Section C, the then current Operations/Project Plans, and the Charter (Attachment 2) with few exceptions. Those exceptions, which are established by NRC Policy, are outlined in Attachment 2a.

In addition to the work mentioned above, the CNWRA may perform work for others, or NRC, within its purpose, scope, mission, and/or special competency, as approved by NRC, consistent with the provisions of Federal Acquisition Regulations (FAR) Subsection 35.017 and procedures for authorization and conduct of such work, as set forth in Attachment 16. Upon receipt of a directive from the Contracting Officer (CO), the CNWRA shall prepare detailed Operations/Project Plans and appropriate spending plans. The CO will issue a directive authorizing performance in accordance with approved Operations/Project Plans. Procedures for Placing and Revising Work are included as Attachment 1.

B.2 Consideration and Obligation

Historical Information

A. <u>October 15, 1987 - October 14, 1992 (Original Contract NRC-02-88-005)</u> a. The total estimated ceiling amount of this Cost-Plus-Award-Fee type contract for the above mentioned period was \$44,803,009.

b. The amount obligated by the Government with respect to this contract for this period was \$44,589,684, of which the sum of \$41,286,744 represents estimated reimbursable costs, and of which \$3,302,940 represented the available award fee. The base fee was \$0. The award fee pool was as stated in the Award Fee Determination Plan (AFDP). The AFDP reflected the actual fee pool based on cumulative estimated costs for performance of approved Operations/Project Plans.

c. Evaluation of the award fee earned was accomplished in accordance with the then current AFDP, see Attachment 11. Neither the determination as to the amount of fee available during a given period, the amount of award fee earned, nor the determination of the criteria under which the subject award fee was made, was subject to the FAR Subpart 52.233-1, entitled "Disputes."

d. Total funds obligated by Job Code (JC) are as follows:

High-Level Waste	Transportation
JC: D1035	JC: D1070
AMOUNT: \$31,303,604	AMOUNT: \$ 596,200
Research	Licensing Support System
JC: B6666	JC: L1590
AMOUNT: \$11,662,000	AMOUNT: \$ 508,880



Waste Solidification Systems JC: L1793 AMOUNT: \$ 419,000 Monitored Retrievable Storage JC: L2516 AMOUNT: \$ 100,000

Total amount obligated: \$44,589,684

e. Total amount authorized by Operations/Project Plans was as follows:

High-Level Waste JC: D1035	Transportation JC: D1070 AMOUNT: \$ 596 200
AMOUNT: \$31,203,804	AWOUNT. \$ 330,200

Research JC: B6666 AMOUNT: \$11,662.000 Licensing Support System JC: L1590 AMOUNT: \$ 508,880

Waste Solidification Systems JC: L1793 AMOUNT: \$ 419.000 Monitored Retrievable Storage JC: L2516 AMOUNT: \$ 50,000

Total amount authorized: \$44.439.684

f. The total award fee available: the award fee earned thus far and the evaluation period applicable thereto was as follows:

	Av	ailable	Award Fee
Evaluation Period	Awa	<u>ard Fee</u>	<u>Earne</u> d
Oct. 15, 1987 - Apr. 1	4 1988	S102.009	\$102.009
Apr 15, 1988 - Oct	4 1988	\$158.444	\$138.639
Oct. 15. 1988 - Apr		\$275.870	\$275.870
Apr 15 1989 - Oct	·: •989	3296.996	\$278. 434
Oct. 15, 1989 - Apr. 1	14 1990	\$318.735	\$290,846
Apr 15, 1990 - Oct 1	14 1990	\$445.789	\$417.930
Oct. 15. 1990 - Apr. 1	14, 1991	\$450.777	\$394,430
Apr. 15. 1991 - Oct. 1	14 1991	\$424.240	\$413.634
Oct 15. 1991 - Apr	14 1992	\$482.533	\$473.486
Apr. 15, 1992 - Sept.	26. 1992	\$299.452	\$290,094

Note that some of the funds which were obligated and authorized during the base contract period are shown as carryover funds in Section B.2.B.

- B. October 15, 1992 September 26, 1997 (First Renewal Period, Contract No. NRC-02-93-005)
 - a. The total estimated ceiling amount of this Cost-Plus-Award-Fee type contract for the above mentioned period was \$89,898,141.
 - b. The amount cb gated by the Government with respect to this contract for this period was \$64,709,671,19. In addition, carryover funds in the amount of \$2,939,101,64 were available for use in this renewal period as indicated below.

The award fee pool was as stated in the AFDP. The plan reflected the actual award fee pool based on cumulative estimate costs for performance of approved Operations/Project Plans. The applicable base fee percentage was also described in the AFDP.

c. Evaluation of the award fee earned was accomplished in accordance with the then current AFDP (Attachment 11). Neither the determination as to the amount of fee available during a given period, the amount of award fee earned, nor the determination of the criteria under which the subject award fee was made, was subject to FAR Subpart 52.233-1, entitled "Disputes."

d. Total funds currently by Job Code (JC) are as follows:

High-Level Waste Job Code: D1035 New Funds: \$45.675.400.00 Carryover: 1.439.917.55 Deobligation: 81.000.00 Transferred from B6666: 2.143.333.89 Total: 49.177.651.44

- Transportation Job Code: D1070 New Funds: \$ 0 Carryover: 31.857 13 Deobligation: 31.857 13 Total. 0
- Research Job Code: B6666 New Funds S 16.511.000 00 Carryover 1.216.795 36 Transferred to D1035: 2 143 333 89 Total 15 534 461 47

Tank Waste Remediation Job Code: J5164 New Funds: \$2.000.000.00 Carryover: \$0 Total: \$2.000.000.00 Licensing Support System Job Code: L1590 New Funds: \$ 50,000.00 Carryover: 18,908.35 Deobligation: 55,259.71

Total: 13.648.64

Waste Solidification Systems Job Code: L1793 New Funds: \$517,000.00 Carryover: 175,391.87 Deobligation: 50,000.00 Total: 642,391.87 Job Code: J5190 New Funds: \$39,900 Total: \$39,900

Monitored Retrievable Storage Job Code L2516 New Funds: \$ 0 Carryover: 56.231.38

Deobligation: 35,771.68 Total: 20,459.70

Safety Review of TMI-2 Job Code: J5186 New Funds: \$165.000 Carryover: \$0 Total: \$165.000

Total New Funds Obligated for Renewal Period:\$ 64,958,300.00New Funds Deobligated During Renewal Period:248,628.81Previously Obligated Funds Deobligated During
Renewal Period5,259.71

e. Total amount authorized by Operations/Project Plans was as follows:

High-Level Waste	Licensing Support System
Job Code: D1035	Job Code: L1590
Amount: \$44,662,918	Amount: \$35,900
Research Job Code: B6666 Amount: \$15,584,461.47	Waste Solidification Systems Job Code: L1793 Amount: \$642,391.87 Job Code: J5190 Amount: \$39,900
Transportation	Monitored Retrievable Storage
Job Code: D1070	Job Code: L2516
Amount: \$0	Amount: \$20,459.70
Tank Waste Remediation	Safety Review of TMI-2
Job Code: J5164	Job Code: J5186
Amount: \$772,035.00	Amount: \$158,290

Total amount authorized: \$61,916,356.04

f. The total award fee available: the award fee earned thus far and the evaluation period applicable thereto were as follows:

Evaluation Period	Available Award Fee	Award Fee Earned
11 9/27/92-4/9/93	\$309,465	259.951
12 4/10/93-9/24/93	347.645	316,673
13 9/25/93-9/30/94	709,894	668,010.43
14 10/1/94-9/29/95	817.617	793,088
15 9/30/95-9/27/96	665,948	645,970
16 9/28/96-9/26/97	556,736	528,899

Current Data

- C. September 27, 1997 September 27, 2002
- a. The total estimated ceiling amount of this Cost-Plus-Award-Fee type contract for the above mentioned period is \$87,611,477.00.
- b. The amount presently obligated by the Government with respect to this contract for this period is \$ 68.905,171.12. In addition, carryover funds in the amount of \$3,299,571.15 (note that \$3.028.61 was deobligated in FY02 from JC J5190) are available for use in this renewal period as indicated below. The award fee pool will be as stated in the AFDP. The plan will reflect the actual award fee pool based on cumulative estimated costs for performance of approved Operations/Project Plans. The applicable base fee percentage is also described in the AFDP.

- c. Evaluator of the award fee earned will be accomplished in accordance with the then current AFDP (Attachment 11). Neither the determination as to the amount of fee available during a given period, the amount of award fee earned, nor the determination of the criteria under which the subject award fee will be made, shall be subject to FAR Subpart 52.233-1, entitled, "Disputes".
- d. Total funds currently obligated by Job Code (JC) are as follows:

High-Level Waste Job Code: D1035 New Funds: \$ 63,686,341 Deob.: \$283,756.57 Carryover: \$1,989,455.71 Total: \$65,392,040.14

Tank Waste Remediation Job Code: J5164 New Funds: \$1,375,000 Deobligation: \$65,000 Carryover: \$1,246,284.95 Total: \$2,556,284.95

Spent Fuel (TMI-2 Fuel Debris) Job Code: J5186 New Funds: \$308,878 Deob.: \$23,898 Carryover: \$28,746.69 Total: \$313,726.69

Aluminum-Based Spent Fuels Job Code: J5210 New Funds: \$125.000 Total: \$125.000

Spent Fuel (PFS)* Job Code: J5226 New Funds: \$2,049,550 Total: \$2,049,550

SKB Peer Review Job Code: J5324 New Funds: \$9,987 Total: \$9,987

Diablo Canyon Job Code: J5390 New Funds: \$272.138.69 Total: \$272,138.69 Waste Solidification Systems Job Code: L1793

New Funds: Carryover: \$2,763.35 Total: \$2,763.35

Waste Solidification Systems Job Code: J5190. New Funds: \$0 Deobligation: \$3,028.61 Carryover: \$35,349.05 Total: \$32,320.44

Spent Fuel (Dry Transfer) Job Code: J5206 New Funds: \$643,600 Deobligate: \$78,000 Carryover: \$0 Total: \$565,600

Spent Fuel (CIS) Job Code: D1035 New Funds: \$450.000 Total: \$450.000

Spent Fuel (CIS) Job Code: J5297 New Funds: \$100,331 Total: \$100,331

Naval Spent Fuel Job Code J5327 New Funds: \$161,000 Deob: \$26,000 Total: \$135,000

INEEL ISFSI-2 Job Code: J5410 New Funds: \$200,000 Total: \$200,000

Total New Funds Obligated for 2nd Renewal Period:\$69,381,825.69Funds Deobligated during 2nd Renewal Period:476,654.57(Note that \$3,028.61 was deobligated from carryover funds rather than new funds.)Net Obligated:\$68,905,171.12

*PFS is subject to the license fee recovery provisions located elsewhere in this contract. The TAC number for this project is L22462.

e. Total amount authorized by Operations/Project Plans is as follows:

High-Level Waste Job Code: D1035 Amount: \$55,348,673

Tank Waste Remediation Job Code: J5164 Amount: \$2,548,584

Spent Fuel (Dry Transfer) Job Code: J5206 Amount: \$565,600

Aluminum-Based Spent Fuel Job Code: J5210 Amount: \$125,000

SKB Peer Review Job Code: J5324 Amount: \$9.987 Waste Solidification Systems Job Code: J5190 Amount: \$32,320.44 Job Code: L1793 Amount: \$2,763.35

Spent Fuel (TMI-2 Fuel Debris) Job Code: J5186 Amount: \$313,726.69

Spent Fuel (CIS) Job Code: D1035 Amount: \$450,000

Spent Fuel (CIS) Job Code: J5297 Amount: \$100,331

Spent Fuel (PFS) Job Code: J5226 Amount: \$2,045,809.14 Naval Spent Fuel Job Code: J5327 Amount: \$135,000

Diablo Canyon Job Code: J5390 Amount: \$272,138.69

INEEL ISFSI-2 Job Code: J5410 Amount: \$200.000

Total amount authorized: \$62.149.933.31

f. The total award fee available, the award fee earned thus far and the evaluation period applicable thereto are as follows:

Evaluation Period Available Award Fee Award Fee Earned

17	9/27/97-9/25/98	\$598 989	\$581,021
18	9/26/98-9/24/99	797 438	781,490
10	0/25/00 0/20/00	818 779	794 216
19	9/23/99-9/29/00	742 073	714 214
20	9/30/00-9/20/01	143.913	714,214
21	9/29/01-9/27/02		

Section C - Description/Specifications/Work Statement

C.1 <u>Statement of Work for Operation of the Center for Nuclear Waste</u> <u>Regulatory Analyses</u>

C.1.1 Concept for CNWRA Support to NRC

C.1.1.1 Nuclear Waste Policy Act of 1982

The Nuclear Waste Policy Act of 1982 as amended (NWPA) sets forth the policy of the United States with regard to the management, storage and disposal of this nation's high-level radioactive waste from commercial and defense activities. The NWPA charges the Department of Energy (DOE) as the lead Federal Agency to manage the siting. construction.

operation, and permanent closure of high-level waste management facilities, including geologic repositories, monitored retrievable storage facility, transportation of high-level waste, and any needed interim storage system under the NWPA. The NRC is charged under the NWPA as the Federal Agency which will regulate DOE's activities under Commission rules so as to assure protection of public health and safety and that the Environmental Protection Agency's (EPA) applicable environmental standards are met with reasonable assurance. The NWPA also sets forth specific institutional processes which involve State and Tribal participation through the program and involve long-term schedules that carry the program into the next century.

C.1.1.2 <u>Need for Federally Funded Research and Development Center</u> (FFRDC) Support to NRC

Within NRC, the Office of Nuclear Material Safety and Safeguards (NMSS) has programmatic lead for developing and executing the regulatory program for NWPA activities. NMSS is supported by other offices in fulfillment of these responsibilities such as the Office of General Counsel (OGC) and the Office of Nuclear Regulatory Research (RES) as warranted and as the budget permits. NRC has a strong heritage of technically competent staff in nuclear regulation which it maintains today and has every intention of maintaining in the future. However, NRC recognizes the critical importance of its technical assistance and research program which is obtained outside of NRC. Because of special circumstances surrounding NRC's need for NWPA related technical assistance and research, NRC has established and will be the sole sponsor for the CNWRA, an FFRDC, in accordance with Office of Management and Budget (OMB) Office of Federal Procurement Policy (OFPP) Letter 84-1 and Part 35 of the Federal Acquisition Regulations. The special circumstances necessitating sponsorship of an FFRDC are:

o The Need to Avoid Conflict of Interest with Regard to NRC's Technical Assistance and Research Program Related to the NWPA

- Many of NRC's prior contractors either had contracts or were competing for contracts under the DOE nuclear waste program, as well as with NRC's licensees or other parties involved in the Commission's licensing hearings. Because DOE is the applicant in NRC licensing hearings, and States and Tribes are parties, concurrent work by NRC contractors for any of the above could diminish the contractors' capacity to give impartial, technically sound, objective assistance and advice or might otherwise result in biased work products. This potential for conflict of interest could result in significant delays to or preclude participation in NRC's licensing proceeding, which is a critical path milestone of the national waste management program.

o The Need for Long-Term Continuity in Technical Assistance and Research

- Because of the need to avoid conflict of interest situations, and because DOE's program budget for the NWPA is significantly larger than NRC's program budget, NRC has in the past lost access to some of its contractual support providing essential technical expertise. Action is required to preclude continued erosion in the future. Since NRC's responsibilities under NWPA span more than twenty years, continuity in technical expertise is essential to the success of NRC's licensing program.

C.1.1.3 Commitments

The specific commitments between the NRC and CNWRA are as follows:

- C.1.1.3.1 The CNWRA and NRC mutually commit to a long-term relationship for technical assistance and research throughout the period for which NRC has responsibilities under the NWPA.
- C.1.1.3.2 The CNWRA shall assist the NRC staff in providing testimony and the CNWRA shall provide testimony by its expert staff, as required, during adjudicatory hearings before the Commission or in court cases dealing with regulatory programs covered in this Statement of Work.
- C.1.1.3.3 Pursuant to its Charter, the CNWRA will provide independent suggestions and recommendations concerning new work that in the opinion of the CNWRA may benefit the NRC in the execution of its responsibilities.
- C.1.1.3.4 NRC will provide the CNWRA access to technical and programmatic materials and provide for access to NRC contractor and DOE facilities in support of systems engineering, technical assistance and research tasks.
- C.1.1.3.5 NRC will keep the CNWRA cognizant of all substantive staff and regulatory decisions on NWPA activities.
- C.1.1.3.6 The CNWRA shall provide written positions, as requested by NRC, on major regulatory and programmatic issues in support of the NRC decision-making process.
- C.1.1.3.7 The CNWRA shall consult and obtain NRC approval prior to scheduling any interactions between itself, DOE, or other parties to the licensing proceedings.

C.1.1.3.8 The CNWRA shall direct research efforts to reduce uncertainty in NRC's regulatory decision-making and associated performance assessments. It is anticipated that the research will include laboratory and field testing of phenomena important to repository behavior and validation of performance assessment models, primarily in the areas of the natural setting and engineered systems. Research in other technical areas may be needed from time to time.

C.2 Scope of Work for the CNWRA

- C.2.1 The charter discussing the requirement for the CNWRA and delineating the mission and major functions of the CNWRA is included as Attachment 2.
- C.2.2 The CNWRA shall provide the necessary personnel, materials, equipment, facilities, and other services to conduct technical assistance and research for NRC in support of its regulatory program as related to activities under the NWPA for a high-level radioactive waste disposal system (includes high-level waste storage, transportation and disposal; and Section 151 activities concerning low-level waste). Technical assistance will be provided to the NRC in support of: (1) creation of regulatory requirements and technical guidance, (2) development of technical assessment capabilities and methods, (3) quality assurance, audits, reviews and field verifications, (4) technical reviews related to NWPA, (6) systematic regulatory analysis, including planning and special studies attendant to the operations and management of the Center (7) other special projects related to highlevel waste management as may be assigned on a case-by-case basis, and (8) assistance to NRC staff during a determination of site sufficiency and waste form adequacy, as well as licensing reviews. A broad program of regulatory research will be conducted consistent with the availability of funding to assist NRC in (1) development of licensing tools and technical bases, (2) development of independent understanding of processes and conditions affecting repository performance, and (3) maintenance of an independent confirmatory research capability. In addition, the CNWRA shall provide technical assistance to support the NRC in other areas described herein, as required.

In accordance with the provisions of the current OFPP and related regulations and procedures attendant to the conduct of work by an FFRDC on behalf of its Sponsor, the CNWRA will exercise its independence and initiative by offering professional advice and counsel on technical matters pertaining to development, allocation and execution of technical assistance and research work to be accomplished under its Charter. This will include, but not be limited to, the effective and efficient utilization of CNWRA core staff's technical knowledge and experience in the selection, application and evaluation of approaches, methodologies and rationale for initiation, prioritization and conduct of new and existing work, irrespective of organizational (NRC or CNWRA) origin.

The CNWRA will utilize its contractually funded opportunities to strengthen the professional knowledge and skills of its staff in order to enhance the quality of such professional advice and counsel during the term of this contract.

C.2.3 The major areas of work for which specific direction may be issued are described below.

C.2.3.1 Waste Systems Engineering and Integration

Work under this area may include, but is not limited to: (1) systems engineering and integration applied to the total high-level waste disposal system and subsystems, from NRC's regulatory perspective; (2) technical review (cost, schedule and performance); (3) analytical and strategic planning studies; and (4) suggestions and recommendations relative to the integration of all CNWRA work currently approved under Operations/Project Plans, including collaborative efforts with NRC staff.

C.2.3.2 Long-Term Performance of Geologic Setting

Work under this area may include, but is not limited to: (1) review and evaluation of preclosure and post-closure issues associated with the role of the geologic setting in performance assessment, (2) siting of an interim storage (IS) system under the NWPA, (3) review and evaluation of selected DOE plans and reports, and (4) technical feasibility assessments involving high-level waste activities. Tasks would involve technical disciplines in earth science areas such as surface water hydrology, saturated and unsaturated groundwater hydrology, geomorphology, seismicity, geophysics, stratigraphy, structural geology, geochemistry, solute transport, natural resource analysis, meteorology/climatology, tectonics, and volcanology.

C.2.3.3 Long-Term Performance of Engineering Barrier System

Work under this area may include, but is not limited to: (1) review and evaluation of preclosure and post-closure issues and design considerations associated with role or use of the engineered barrier system in the performance of the geologic repository, (2) siting of an IS system, (3) review and evaluation of selected DOE plans and reports, and (4) technical feasibility assessments involving high-level waste activities. Review and evaluation of thermal and environmental conditions may also be required. Tasks would involve technical disciplines in areas such as nuclear engineering, mechanical engineering, electrochemistry, waste form behavior, material life prediction, reliability, materials science, corrosion engineering, manufacturing technology for metals, ceramic processing, glass science, and geochemistry.

C.2.3.4 Waste Solidification Systems

Work under this area may include, but is not limited to, the review and evaluation of technical issues related to high-level waste processing activities and associated radiological health and safety as well as environmental affects related to the West Valley Demonstration Project. Tasks would involve technical disciplines in areas such as chemical engineering, environmental sciences, glass science, off-gas treatment, corrosion engineering, nuclear engineering, structural engineering, and seismic structural analysis.

C.2.3.5 Interim Storage and Repository Design, Construction and Operation

Work under this area may include, but is not limited to: (1) review and evaluation of technical issues and design considerations associated with the licensing, construction, and operational performance of an IS system and a high-level waste geologic repository, (2) review and evaluation of selected DOE plans and reports, and (3) technical feasibility assessments involving high-level waste activities. Tasks would involve technical disciplines in areas such as nuclear, facilities, civil, structural, and mining engineering, radiation protection, safety analysis, criticality, fire protection engineering, process engineering, effluent treatment analysis, structural analysis, geological and geotechnical engineering, and industrial and mine safety.

C.2.3.6 Research

Research consistent with availability of funding will be based on the following: (1) iterative performance assessment and other calculational methodologies to identify areas of high sensitivity, (2) the results of research conducted by NRC or others, and (3) recommendations of review and oversight groups such as the Advisory Committee on Nuclear Waste. Such a program will consider the ongoing repository development program of the DOE, the host State and other parties as well as the Regulatory Program of the Nuclear Regulatory Commission.

Research shall be conducted, as necessary, in each of the broad areas of geologic setting, engineered barrier systems, repository design, construction, and operations, and performance assessment.

C.2.3.7 CNWRA Operations

Work under this area may include, but is not limited to, the development and implementation of necessary administrative, management and quality assurance procedures and practices needed to successfully operate a FFRDC. Activities will encompass: (1) providing management and technical support, including Information Management Systems (IMS) which is not program element specific, (2) developing and sustaining technical and analytical capabilities, (3) staffing, (4) developing and maintaining Operations Plans, and Management Plan (including Staffing

Plan), (5) performing analyses of policy, environmental, socio-economic, institutional and legal matters applied to NWPA waste management issues, (6) conducting strategic planning studies, including analyses of alternative approaches, and (7) conducting internal quality assurance.

C.2.3.8 Performance Assessment

Work under this area may include, but is not limited to: (1) development of performance assessment capabilities, (2) participation in iterative performance assessment, (3) review and evaluation of the technical issues associated with the performance assessment of the overall repository system, (4) review and evaluation of selected DOE plans and reports, and (5) conduct of technical feasibility assessments involving highlevel waste activities. Tasks will include, but not be limited to, technical support for the resolution of performance assessment licensing issues, modeling, maintenance and management of a configuration controlled code, and participation in national and international studies and workshops. A wide range of technical disciplines will be drawn from the major work areas defined in sections C.2.3.1 through C.2.3.5, and will emphasize skills in flow and transport modeling, risk/hazard assessment, health physics, and computer science.

C.2.3.9 External Quality Assurance

Work under this area may include, but is not limited to: (1) performing observation(s)/audit(s) of DOE quality assurance (QA) programs, (2) conducting quality assurance on-site visits and verifications, (3) providing expert advice to NRC staff on its annual updates of QA Review Plan and technical positions on quality assurance, and (4) reviewing DOE management control documents and revisions to previously approved quality assurance plans for DOE program participants/contractors.

C.2.3.10 HLW Licensing Support System (LSS)

Work under this area may include, but is not limited to: (1) project management support for the LSS, e.g., evaluation of issues related to design, development, quality assurance, and operation of the LSS, (2) assistance in development of procedures and standards for the submission of documentary materials, including compliance evaluation and protocols for access to technical data, (3) maintenance of LSS guidance documents, and (4) support related to LSS workload processing distribution and volume assessment.

C.2.3.11 Transportation

Activities under this area may include, but are not limited to: (1) review and evaluation of selected DOE plans and reports, (2) technical feasibility assessments, and (3) policy issues, strategic planning studies, as well as environmental, socio-economic, institutional and legal analyses applied to NWPA waste transportation issues.

C.2.3.12 Tank Waste Remediation System (TWRS)

Work under this area may include, but is not limited to technical and regulatory issues pertaining to the determination of changes to the NRC regulatory framework that will need to be stable and predictable prior to the DOE soliciting bids for Phase II solidification of high-level and transuranic wastes. Part of this effort will include the review and evaluation of technical issues related to compatibility of Phase I proposed designs and operations with NRC safety and safeguards regulations and guidance. Technical disciplines and special qualifications include experience in waste solidification systems and technology, risk analysis, regulatory analysis, hazards analysis and process risk management, health physics, off-gas treatment, chemistry and chemical engineering, corrosion engineering, materials engineering, nuclear criticality safety, structural engineering, seismic structural analysis, and quality assurance.