



IAEA/ANL
Interregional Training Course



**Technical and Administrative Preparations
Required for Shipment of Research Reactor
Spent Fuel to Its Country of Origin**

Argonne National Laboratory
Argonne, IL
13 - 24 January 1997

Lecture L.6.1b

FOR INFORMATION ONLY
Terms and Conditions for
the Acceptance of
Foreign Research Reactor Spent Nuclear Fuel
at the Savannah River Site

U.S. Department of Energy
Savannah River Operations Office

International Atomic Energy Agency
Vienna, Austria

Argonne National Laboratory
Illinois, USA

CONTRACT NO. [DOE Contract Number]

BETWEEN THE

**UNITED STATES DEPARTMENT OF ENERGY
SAVANNAH RIVER OPERATIONS OFFICE**

AND

 [Customer Organization]

 [Country]

**TERMS AND CONDITIONS FOR
THE ACCEPTANCE OF
FOREIGN RESEARCH REACTOR SPENT NUCLEAR FUEL
AT THE SAVANNAH RIVER SITE**

Note: This contract contains clauses that are common to many contracts that have been entered into by the Department of Energy and foreign research reactor operators in countries with high income economies. However, the terms and conditions of any contract between the Department and individual operators will be negotiated on a case-by-case basis.

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THIS Contract, entered into this ___ day of ____, 199_, by and between the UNITED STATES DEPARTMENT OF ENERGY (hereinafter referred to as "DOE"), and [Customer Organization] located at [Organizational Address], (hereinafter referred to as "Customer").

WITNESSETH THAT:

WHEREAS, the National Defense Authorization Act for Fiscal Year 1994 authorizes receipt and management of foreign research reactor spent nuclear fuel in the United States subsequent to completion by DOE of an Environmental Impact Statement No. DOE/EIS-0218F (the "EIS") covering such fuel; and

WHEREAS, Special Nuclear Material, as defined herein, of United States origin has been irradiated in the nuclear research reactor [Reactor Name] (the "Reactor" as defined herein) operated at [Organizational Address], and

WHEREAS, DOE has indicated its willingness, as set forth in a Record of Decision ("ROD"), issued by the Department on May 13, 1996, and revised on July 22, 1996, to accept for management and disposition, under certain conditions specified in the ROD, Authorized Material as defined herein, which has been discharged from the Reactor and which is covered by the eligibility criteria specified in the EIS; and

WHEREAS, the parties have agreed to the terms and conditions set forth in this Contract applicable to the receipt of Authorized Material; and

WHEREAS, this Contract is executed under the authority of the United States Department of Energy Organization Act of 1977 and the United States Atomic Energy Act of 1954, as amended, and the Agreement for Cooperation in the Peaceful Uses of Nuclear Energy between the United States of America and the European Atomic Energy Community signed on November 7, 1995, in Brussels, Belgium; and

WHEREAS, it is DOE's intent to treat similarly situated reactor operators and participating facilities fairly, equitably and in accordance with the principles of the Reduced Enrichment for Research and Test Reactors ("RERTR") program while maintaining its flexibility to address unanticipated circumstances.

NOW, THEREFORE, the parties hereto mutually agree as follows:

ARTICLE I - DEFINITIONS

The following terms, as used herein, shall have the following meanings:

A. "Appendix A": A document describing the physical and chemical characteristics, approximate isotopic composition, and dimensions and weight of a homogeneous batch of

Authorized Material for transport to DOE in a Shipment Batch as defined herein. Sample Appendix A is attached to this document. An "Appendix A" shall be submitted to DOE for each batch of Authorized Material with different material characteristics.

B. "Appendix B": A document, attached to this contract, describing transportation package acceptance criteria for a Transport Package, as defined herein.

C. "Appendix C": A document describing the history of the Authorized Material designated for shipment to DOE in the applicable Appendix A, including any available information concerning its fabrication, use and the conditions under which the Authorized Material heretofore has been stored.

D. "Authorized Material": Irradiated spent nuclear fuel elements, fresh nuclear fuel elements, and target materials from the Reactor containing uranium enriched in the United States that meet the requirements set forth in the EIS and the ROD. Designation of material as "Authorized Material" becomes effective upon approval by DOE of an Appendix A submitted by Customer, which approval shall not be unreasonably withheld.

E. "Canned" or "Canning": The placing of degraded or failed fuel in sealed aluminum canisters (i.e., "Cans") prior to shipment as specified in Appendix B.

F. "Contracting Officer": The person executing this Contract on behalf of the United States Government and DOE, including his/her successor and any duly authorized representative of any such person.

G. "Customer": The entity entering into this contract with DOE (i.e. [Customer Organization, Organizational Address]).

H. "Days": All references to days herein shall refer to calendar days.

I. "DOE": The United States Department of Energy.

J. "Equipment": International Standards Organization (ISO) containers and any special handling tools/devices provided by Customer that are necessary to facilitate shipment and unloading of Authorized Material.

K. "Highly enriched uranium (HEU)": Uranium with more than 20 percent of the uranium-235 isotope, used for making nuclear weapons and also fuel for some isotope-production, research, naval propulsion, and power reactors.

L. "Low enriched uranium (LEU)": Uranium enriched until it consists of up to 20 percent uranium-235. Used as nuclear reactor fuel.

M. "Mitigation Action Plan": A document that sets forth a plan to minimize the likelihood that any individual involved in the transportation and handling of spent fuel from foreign research reactors will receive a radiation dose in excess of the United States regulatory limit. The office title of this document is "Mitigation Action Plan for the Implementation of a Nuclear Weapons Nonproliferation Policy Concerning Foreign Research Reactor Spent Fuel" dated August 1996.

N. "Reactor": The nuclear research reactor [Reactor Name] operated at [Organizational Address].

O. "Shipment Batch": The Authorized Material designated in one or more Appendices A to be shipped in a single ocean vessel and delivered to SRS.

P. "SRS": The DOE Savannah River Site facility located in Aiken, Allendale and Barnwell counties in the State of South Carolina.

Q. "Special Nuclear Material": (1) Plutonium or uranium enriched in the isotope U-233 or in the isotope U-235, and any other material which DOE, pursuant to the provisions of the Atomic Energy Act of 1954, as amended, determines to be Special Nuclear Material, but does not include source material; or (2) any material artificially enriched by any of the foregoing, but does not include source material.

R. "Transport Package": A packaging receptacle, which may include radioactive contents, used for transportation of the Authorized Material.

ARTICLE II - SCOPE

This Contract provides the terms and conditions applicable to shipments to DOE of Authorized Material. Shipments may include degraded, failed, or otherwise materially damaged Authorized Material if it is properly canned prior to shipment as specified in Appendix B.

ARTICLE III - DELIVERY OF AUTHORIZED MATERIAL BY CUSTOMER

A. Customer shall directly deliver Authorized Material to DOE via the planned route referenced in Article IV herein and, except as otherwise provided in this Contract, DOE shall receive Authorized Material. Unless otherwise mutually agreed in writing, or specified herein, delivery of Authorized Material shall be made and paid for by Customer "Delivered Duty Paid" (DDP), destination SRS. Under this Contract, DDP means that Customer shall pay all costs associated with packaging, loading, preliminary transport, customs clearance for export, transport insurance, handling outbound, ocean transport, import customs clearance duties and taxes, and final land transport in the United States. Excluded under this term are costs for handling and unloading at the Charleston Naval Weapons Station, and unloading at SRS.

B. Customer shall submit a proposed Appendix A not less than one-hundred eighty (180) days in advance of a delivery date proposed by DOE for a Shipment Batch, unless otherwise agreed between the parties in writing. DOE agrees, subject to the provisions of Article IV herein, that not less than ninety (90) days prior to the proposed delivery date, DOE shall, by facsimile, either confirm the proposed delivery date or suggest a reasonable alternate date, unless otherwise agreed between the parties in writing.

C. Customer shall make a good faith effort to provide an Appendix C for each Shipment Batch. However, unavailability of an Appendix C shall not constitute grounds for DOE to postpone or refuse receipt of a Shipment Batch.

D. DOE shall be under no obligation by virtue of this Contract to accept Authorized Material (1) which is incorrectly described in Appendix A; (2) which is delivered other than in accordance with an agreed-upon delivery date, (3) which is delivered other than in accordance with Appendix A or Appendix B, or (4) which does not meet any other requirements for delivery or receipt of Authorized Material in this Contract or (5) which is not delivered in accordance with the DOE approved plan implementing the requirements of the MAP.

E. DOE shall be under no obligation to accept material that is not Authorized Material.

ARTICLE IV - PREREQUISITE FOR COMMENCEMENT OF SHIPMENT

The parties agree that DOE is under no obligation to accept Authorized Material for which any segment of its transport from the Reactor to SRS commences prior to DOE's issuance to Customer of a written "Authorization to Ship" indicating DOE's readiness to safely receive the Authorized Material. DOE will use its best efforts to provide a written "Authorization to Ship" to Customer no later than thirty (30) days prior to the scheduled departure of a Shipment Batch. Customer shall notify DOE of the planned route, any scheduled ports of call and the schedule for transporting a Shipment Batch at least fourteen (14) days before any Authorized Material is shipped from the Reactor. Subject to Article XIV herein, DOE shall not withhold its "Authorization to Ship" for reasons that would be contrary to the nonproliferation objectives specified in the EIS and ROD or inconsistent with the principles of the RERTR program, and in determining whether and when to issue such an authorization, shall take into account the parties' reasonable operational needs and constraints.

ARTICLE V - OPERATIONAL ASPECTS OF SHIPMENTS

Customer will take the following actions with respect to transporting and delivering Authorized Material to SRS:

A. Customer shall provide DOE, at least thirty (30) days prior to commencement of shipping a Shipment Batch, the name of Customer's designated shipping agent(s) for such Shipment Batch.

Such agent(s) shall possess appropriate qualifications and experience in the transport and traffic management of radioactive materials.

B. Customer shall comply with all applicable international and United States Federal and State laws and regulatory requirements governing shipments made under this Contract. These laws and requirements include, but are not limited to, the EIS, ROD, and Mitigation Action Plan; regulations of the foreign nations in which the Authorized Material is located or through which it will be transported; International Atomic Energy Agency (IAEA) regulations; International Maritime Organization (IMO) regulations in force and adopted by the United States at the time of shipment; and the applicable regulations of DOE, the United States Nuclear Regulatory Commission (NRC), the United States Coast Guard (USCG) and the United States Department of Transportation (DOT). Customer shall also adhere to applicable requirements of origin, interim, and destination and applicable laws of the state of South Carolina; provided however, that DOE shall bear the full and complete costs incurred by Customer for compliance with additional requirements as specified in Article V(L) herein that are imposed by DOE.

C. Customer shall provide one or more TRANSCOM transponder(s) to allow continuous monitoring of the land transport system carrying any Shipment Batch from the time it leaves the Charleston Naval Weapons Station until such time as the Authorized Material arrives at SRS. Customer shall ensure that the TRANSCOM transponder(s) is properly affixed to the shipment or transport system, and is continuously used while the Authorized Material is transported from the Charleston Naval Weapons Station to SRS.

D. Customer shall ensure that the ocean-going vessel that transports a Shipment Batch to the Charleston Naval Weapons Station remains at the Naval Weapons Station and is available to re-load the Shipment Batch until such time as the Shipment Batch leaves the Charleston Naval Weapons Station. Customer's expense shall be limited to a maximum of 24 hours from the time the last transport package is off-loaded. Vessel delay after that time will become DOE's expense.

E. Customer shall, at its expense, provide to DOE a two (2) liter water sample drawn from the Reactor storage basin as specified in Appendix B. This water sample shall be drawn and sent to DOE within 24 hours of loading a Shipment Batch into the Transport Package(s) in accordance with Appendix B.

F. Customer shall adhere to the requirements specified in Appendix B.

G. DOE shall comply with all applicable NRC, DOT, and IAEA regulations governing public disclosure of any shipping plans or shipment information, or the individual details comprising such plans or information, unless such agency provides written relief from any otherwise applicable regulation.

H. All shipments of Authorized Material from Customer to SRS will be made in Customer-furnished Transport Packages and Equipment.

I. All Transport Packages must be shipped to the final destination in duly approved International Standards Organization (ISO) containers, unless otherwise authorized by DOE.

J. Customer agrees to implement the provisions of the MAP for the Implementation of a Nuclear Weapons Nonproliferation policy Concerning Foreign Research Reactor Spent Fuel, including any amendments or revisions hereto. Customer or Customer's authorized representative shall submit and obtain approval from DOE a plan to implement MAP requirements if a plan has not been previously approved by DOE. DOE approval is required prior to DOE issuance of the "Authorization to Ship" as discussed in Article IV.

K. Customer agrees to require that its shipping agent(s) maintain records of the ships used to transport Authorized Material and the names of ship crew members and land transportation workers who are involved in the transport of Authorized Material. Such records shall be made available for DOE inspection upon DOE's request, consistent with the MAP.

L. In addition, Customer shall comply with the following requirements if requested by DOE:

1. At DOE's request and expense, Customer shall participate with DOE, other Federal agencies, States, and local United States jurisdictions in a transportation planning process for each Shipment Batch as discussed in Appendix H to the EIS. Customer shall provide, or shall ensure that its shipping agent(s) provides, information regarding the shipment as required to support completion of the transportation planning effort, including but not limited to elements of the transportation plan for the shipment.

2. At DOE's discretion, DOE will timely provide Customer, at DOE's expense, one or more INMARSAT transponders to allow continuous monitoring of the ocean transport vessel carrying any Shipment Batch from the time it leaves the port of origin until such time as the Authorized Material arrives at the Charleston Naval Weapons Station. At DOE's request and expense, Customer shall ensure that such INMARSAT transponder(s) is properly affixed to the shipment or transporting vessel, is used throughout the ocean transport, and is returned to DOE at the end of the ocean crossing.

3. At DOE's request and expense, Customer agrees to provide all reasonable security escorts, equipment, and communications capability that may be requested by the State of South Carolina related to the transport of any Shipment Batch from the Charleston Naval Weapons Station to SRS that are in addition to those otherwise required by applicable law or regulation.

4. At DOE's request and expense, Customer agrees to take such action(s) as DOE may require to adjust the arrival time of a Shipment Batch to the Charleston Naval Weapons Station.

ARTICLE VI - SHIPMENT NOT YET IN TRANSIT

A. For a shipment previously authorized under Article IV herein, but where the Authorized Material has not yet left the Reactor site, DOE may postpone shipment of Authorized Material from departing the Reactor site for transport to the United States for reasonable cause, including, but not limited to, the following:

1. Changes to Customer's approved Appendix A that DOE determines may invalidate DOE's criticality analysis or dropped fuel analysis. Changes that may invalidate DOE's criticality analysis or dropped fuel analysis include, but are not limited to:

- a) changes in the specific Transport Package scheduled to be used to transport the Authorized Material less than 60 days prior to the scheduled shipping date,
- b) discovery of an error in the approved Appendix A; or
- c) discovery of the need to Can fuel not previously identified as requiring Canning.

2. Failure by Customer to load Authorized Material and prepare the Transport Package(s) in a manner consistent with (a) the scheduled delivery date for such Authorized Material, or (b) DOE acceptance criteria described in Appendix B.

3. Where DOE determines that bona fide United States national security concerns require that an urgent shipment of spent fuel, fresh fuel or target material meeting the acceptance criteria of the ROD must be made from another specific facility.

4. Where DOE determines that commencing the shipment as authorized may now present unacceptable security risks.

5. Failure by Customer to permit DOE to conduct the onsite inspection described in Article X(D) herein.

6. Failure by Customer to provide the information required to be submitted by Article X(E) herein.

B. Any shipment postponed under this section shall be rescheduled for the earliest practicable shipment date.

C. Customer shall pay for any costs attendant to postponement of a shipment under this Article.

ARTICLE VII - SHIPMENT IN TRANSIT

A. If the delivery of Authorized Material to, or the receipt of Authorized Material by, DOE is prevented by a decision of a United States court of competent jurisdiction issued after such Authorized Material has left [country] and is in transit to SRS, DOE and Customer shall use their best efforts to provide a location for the temporary safe storage of such Authorized Material. The duration of such temporary storage shall be only for so long as the legal impediment exists, unless the parties agree otherwise. DOE and Customer agree to share equally all reasonable costs associated with the temporary storage.

B. If the legal impediment remains in force beyond ninety (90) days, DOE agrees to assist Customer in arranging for relocation of the Authorized Material from temporary storage to a location where the Authorized Material shall be managed and disposed in a manner agreed to by the parties.

C. DOE may direct Customer, for any reason, to delay a shipment of Authorized Material while such Authorized Material is in transit. In such event, and in the absence of a legal impediment, DOE agrees to pay all costs reasonably incurred by Customer as a result of DOE's direction except that Customer shall be obligated to take all reasonable steps to mitigate such costs.

D. Once title is transferred to DOE in accordance with Article VIII and the acceptance criteria described in Article III.D is met, the Authorized Material will not be returned to the Customer.

ARTICLE VIII - TITLE

Title to all Authorized Material owned by Customer and delivered hereunder shall vest in the United States upon arrival on United States soil at the Charleston Naval Weapons Station, or such other port as may be authorized by DOE.

ARTICLE IX - EFFECT OF DELIVERY OF AUTHORIZED MATERIAL

Except as set forth in Article XI herein, Customer shall not be responsible for damage to facilities, equipment or property owned by the United States Government, or for the injury, disease, or death of any person resulting from the receipt, handling or processing in United States Government-owned facilities of Authorized Material which is delivered by Customer in compliance with the provisions of this Contract. Upon delivery to SRS, all responsibility for the Authorized Material shall rest with DOE.

ARTICLE X - FURTHER ASSURANCES

A. Customer represents and warrants to DOE that it has the power and authority under the laws of [country] to enter into this Contract and to consummate all of the obligations

required of Customer by this Contract. DOE represents to Customer that it has the power and authority under the laws of the United States to enter into this Contract.

B. This Contract is, when executed, a valid and binding obligation of Customer and DOE, enforceable against either in accordance with its terms.

C. Customer warrants and represents that any Authorized Material which is "degraded", "failed", or otherwise "materially damaged" (all as defined in Appendix B) shall be properly Canned, pursuant to the specifications contained in Appendix B, prior to commencement of shipment of Authorized Material.

D. At DOE's request, Customer shall permit DOE, or its designated agent, to conduct an on-site inspection at the Reactor of Authorized Material prior to its shipment to SRS. Such an inspection may include, but is not limited to, items such as (1) visual inspection of the Authorized Material, Transport Package(s) and Equipment, (2) review of the Authorized Material and Transport Package(s) for consistency with the information provided in the appropriate Appendix A and the requirements of Appendix B, and (3) tests to confirm the integrity of the cladding on any spent fuel to be shipped and to confirm that no fission products are leaking from the Authorized Material. In lieu of conducting its own inspection, DOE shall have the option to accept the results of an inspection performed by Customer or Customer's designated agent within thirty (30) days prior to commencement of shipment.

E. Customer shall provide to DOE a written description of the observable physical condition of the Authorized Material and written certification by Customer as to the condition of the Authorized Material, either by hand delivery or by facsimile, at the time the Transport Package(s) is loaded.

F. Customer shall request DOE to accept under the provisions of this Contract all spent fuel from the Reactor that satisfies DOE's acceptance criteria as specified in the EIS and ROD whether such spent fuel is in storage at the Reactor at the time the Contract becomes effective or is discharged from the Reactor by May 13, 2006. Subject to the terms and conditions of this Contract, DOE shall accept such spent fuel.

G. Customer agrees not to use highly enriched uranium in the Reactor after the execution of this contract.

H. DOE represents that, with respect to a nuclear incident within the United States as defined in Section 11 of the Atomic Energy Act of 1954, as amended ("AEA"), Customer is a person indemnified under Section 170d of the AEA.

ARTICLE XI - TRANSPORT PACKAGES; EQUIPMENT; DECONTAMINATION

A. Customer shall submit to DOE three (3) copies (in English) of: (1) those documents required to be submitted under Appendix B, and (2) the United States Certificate of Competent Authority.

B. Whenever Authorized Material, Transport Packages, and Equipment are shipped to SRS and DOE finds it necessary: (1) for sound technical or regulatory reasons, (2) because of Customer's failure to meet the acceptance criteria of Appendix B, or (3) because of Customer's failure to meet applicable federal or state health and safety requirements, to decontaminate such material, packages or equipment, or the railroad cars, trucks, or other shipping vehicles or DOE's unloading area and machinery involved in the shipment, Customer shall be liable for necessary clean-up and decontamination costs subject to notice to Customer of the need for decontamination. Charges for decontamination as a result of fault or negligence on the part of DOE will not be charged to Customer. Charges assessed under this paragraph shall not include routine decontamination expenses associated with SRS receipt, unloading and preparation for return of the Transport Packages and Equipment.

C. DOE will promptly notify Customer by facsimile of the availability of the Transport Package(s) and Equipment for return once each such Transport Package is emptied, and in no event later than twenty-four (24) hours subsequent to each individual package's availability. Customer is then responsible for notifying DOE of the Transport Package and Equipment destination and any required destination preparations. Customer agrees, at its expense, to remove the Transport Package and Equipment from the SRS boundary promptly. Return shipments of Transport Packages and Equipment from the SRS boundary will be the sole responsibility and at the expense of Customer. DOE will be responsible for any loss of or damage to Customer's Transportation Package(s) or Equipment resulting from DOE's fault or negligence.

D. DOE will endeavor to unload each Transport Package as expeditiously as possible. DOE agrees that Customer may expect that Transport Packages will be unloaded by DOE at a minimum rate of four Transport Packages per month; provided, however, that DOE shall determine the order for unloading of Transport Packages at SRS.

ARTICLE XII - DOE OBLIGATIONS

A. Subject to the terms and conditions of this Contract, DOE will receive the Authorized Material delivered hereunder, and may perform such measurements and analyses, if any, as it may reasonably deem appropriate subject to the provisions of Article XVII.

B. DOE may fulfill any of its obligations, or take any action, under this Contract either directly or through contractors.

ARTICLE XIII - PAYMENT FOR DOE SERVICES

A. In addition to any costs assessed against Customer under Article XI(B) herein, Customer shall pay to DOE in accordance with Article XV: (1) the base total fee of FOUR THOUSAND FIVE HUNDRED UNITED STATES DOLLARS (\$4,500) per kilogram (kg) of total weight of Authorized Material delivered that contains highly enriched uranium; and (2) the base total fee of THREE THOUSAND, SEVEN HUNDRED AND FIFTY UNITED STATES DOLLARS (\$3,750) per kilogram (kg) of total weight of Authorized Material delivered that contains low enriched uranium. The fee shall be adjusted annually on February 1, or as soon thereafter as possible, to account for inflation or deflation as indicated by the calendar year Gross Domestic Product deflator (Chain-type price index) listed in Table 7.1 of the first issue of the *Survey of Current Business* that is published in the year in which the adjustment is made. The *Survey of Current Business* is published by the United States Department of Commerce, Bureau of Economic Analysis. The adjusted fee shall remain in effect for all Shipment Batches for which Appendices A are signed by DOE prior to the next annual adjustment.

B. Upon receipt at SRS, if a Shipment Batch, or any portion thereof, is found to be inconsistent with the applicable Appendix A, or does not meet the requirements of Appendix B hereto, Customer shall pay any reasonable costs incurred by DOE over the base total fee set forth above for management and disposition of such material.

C. It is DOE's intent to charge similarly situated reactor operators comparable fees subject to the policy set forth in *Establishment of the Fee Policy for Acceptance of Foreign Research Reactor Spent Nuclear Fuel*, 61 Federal Register 26,507-08 (May 28, 1996).

ARTICLE XIV - EXCUSED NON-PERFORMANCE

A. Neither DOE nor Customer shall be liable to the other under this Contract for damages occasioned by failure to perform its obligations under this Contract if such failure arises out of causes beyond the control and without the fault or negligence of the party so failing to perform. Examples of such force majeure include, but are not limited to:

1. Acts of God;
2. War;
3. Strikes;
4. Weather;
5. Riots or demonstrations; or
6. Criminal or terrorists acts.

B. Neither DOE nor Customer shall be liable to the other under this Contract for damages occasioned by failure to perform their respective obligations under this Contract if such failure arises out of any of the following causes:

1. Acts of national legislative bodies;
2. Acts of States or local governments or authorities, whether or not reasonably foreseeable, except where such acts are preempted by the Atomic Energy Act of 1954, as amended, or other applicable Federal law or the Supremacy Clause of the United States Constitution, in which case neither party shall act to infringe upon the right to legal or other recourse available to either party; or
3. Decisions of judicial bodies with competent jurisdiction.

ARTICLE XV - PAYMENTS BY CUSTOMER

A. Payments for Authorized Material. DOE reserves the right to provide both provisional and final invoices to Customer for each Shipment Batch.

1. Provisional Payment. Payment for acceptance of each Shipment Batch to be received by DOE from Customer pursuant to Article XIII(A) herein shall be due within thirty (30) days after receipt by Customer of the confirmed transmittal by SRS of a provisional invoice by facsimile. This facsimile shall constitute the official provisional invoice for payment purposes. Invoice transmittal will occur no earlier than the date of receipt of the Shipment Batch at SRS.

2. Final Payment. DOE shall inform Customer within thirty (30) days after a Shipment Batch is unloaded at SRS whether or not any additional payment is required based on measurements of the Authorized Material performed by DOE pursuant to Article XVII herein. Any additional payment shall be due thirty (30) days after receipt by Customer of the confirmed transmittal by SRS of a final invoice by facsimile. This facsimile shall constitute the official final invoice for payment purposes.

3. Method of Payment. Payments due under either a provisional or final invoice shall be paid by Electronic Funds Transfer (EFT) in US dollars through use of the U.S. Treasury's FEDWIRE DEPOSIT SYSTEM (FEDWIRE), and all costs of payment transmission and delivery shall be paid by Customer without charge to DOE.

B. Payments for Additional Costs Incurred by DOE. With respect to any additional costs incurred hereunder by DOE that are separate from the charges for DOE services set forth in Article XIII(A) herein, such costs shall be separately invoiced to Customer and shall be due thirty (30) days after receipt by Customer of the confirmed transmittal by SRS of an invoice by facsimile. This facsimile shall constitute the official invoice for payment purposes. Payments

due shall be made in accordance with payment methods and instructions furnished with such invoices.

C. Contact for Payment. The phone, fax and contact person for purposes of arranging for payment are:

Country Code: [#] City Code: [#]
Local FAX Number: [#] _____
VOICE Number: [#] _____
Name of Designated Contact: [Customer Contact Name]

D. Past Due Invoices

1. Payments due for (a) Authorized Material, or (b) additional costs, not received within the prescribed thirty (30) days of an invoice date will be assessed interest on the amount due from the invoice date through the date of payment. The rate of interest assessed shall be the rate of the current value of funds to the U.S. Treasury, as prescribed and published by the Secretary of Treasury in the Federal Register and the Treasury Fiscal Requirements Manual Bulletin annually or quarterly in accordance with 31 USC 3717. The rate of interest at the time services are rendered will be placed at the bottom of each invoice sent to the Customer.

2. Upon notification from Customer that it is unable to pay for justifiable reasons the amount due within the prescribed thirty (30) days of an invoice date, DOE shall give favorable consideration to extending the thirty (30) day period for an additional thirty (30) days if approved by the head of the Agency. This is a unilateral decision to be made by the Agency and shall not be subject to Article XXIX, Dispute Resolution.

3. A late payment handling charge (administrative charge) of \$20.00 shall be imposed on delinquent invoices for each 30-day period of delinquency or portion thereof.

4. Pursuant to 4 CFR 102.13, Customer shall pay a penalty of six percent (6%) per annum on any portion of debt that is delinquent. This charge shall not be calculated until the 91st day of delinquency, but shall accrue from the date that the debt became delinquent. Interest and other late payment charges duly assessed are not waived by payment of principal. Amounts received in partial payments will be applied first to accrued penalties, then to accrued administrative charges, then to accrued interest, and finally to the principal, pursuant to 4 CFR 102.13(f), dated 1/1/96.

ARTICLE XVI - TERM OF CONTRACT

This Contract shall become effective upon execution by both parties and shall continue in effect until all Authorized Material has been accepted by DOE at SRS and payment therefor has been received, unless earlier terminated by mutual agreement of DOE and Customer. Acceptance of

Authorized Material by DOE may occur in accordance with the terms of this Contract at any time until May 13, 2009; provided, however, that all Authorized Material must be discharged from the Reactor prior to May 13, 2006.

ARTICLE XVII - MEASUREMENTS OF MATERIAL QUANTITIES AND PROPERTIES: RESOLUTION OF MEASUREMENT DIFFERENCES

A. Authorized Material delivered hereunder may be measured by DOE upon receipt at SRS unless DOE determines, upon notice to Customer, that it is in the best interests of the United States Government to adopt other available evaluation techniques. Measurements may include, but shall not be limited to, determinations as to weight, size, chemical composition and isotopic composition, as appropriate. Measurements of composition shall be performed by the methods of Non Destructive Analysis (NDA) using the existing (or modified) Under Water Neutron Coincidence Counter (UWNCC).

B. Customer shall provide DOE with evidence and documentation of the weight of the Authorized Material and any modifications to the Authorized Material.

C. DOE reserves the right to verify the weight of Authorized Material it receives from Customer.

ARTICLE XVIII - MODIFICATION AUTHORITY

A. The Contract is not subject to modification except by written agreement signed by DOE's and Customer's representatives; as to DOE, this representative shall be the duly authorized Contracting Officer as specified below. Any such written modification shall be explicitly identified as a modification to this Contract.

B. Notwithstanding any other provision of this Contract, the duly authorized Contracting Officer shall be the only individual authorized by DOE to:

1. Accept Authorized Material not conforming with Appendix A or the requirements of Appendix B;

2. Waive any requirement of this Contract; or

3. Modify any term or condition of this Contract upon mutual consent.

ARTICLE XIX - COMMUNICATIONS

Except as otherwise may be provided in this Contract, all communications pursuant to this Contract from either party to the other shall be in writing and shall be sent to the following addresses:

TO DOE:

Contracts Management Division
ATTN: D. L. Campbell
United States Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, SC 29802
Facsimile Number: (803) 725-8573

For Technical Information Communications, send a copy of all written communications to:

Director of Reactors and Spent Fuel Division
United States Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, SC 29802
Facsimile Number: (803) 557-3763

TO Customer:

[Contact Name]

[Title]

[Customer Organization]

[Address]

For Information Only

ARTICLE XX - RIGHT TO USE AND PUBLISH INFORMATION

DOE shall have the right to publish and use information or data developed by DOE as the result of any service, analysis or test performed under this Contract for Customer, subject to statutory or regulatory restrictions imposed by other United States Government agencies. However, unless required by law or regulation, DOE shall not publicly disclose information properly designated by Customer as proprietary.

ARTICLE XXI - ASSIGNMENT

Neither this Contract, nor any interest herein or claim hereunder, shall be assigned or transferred by Customer, without the express written approval of DOE.

ARTICLE XXII - PERMITS

Customer shall procure all necessary permits or licenses (including any Special Nuclear Material licenses) applicable to shipment(s) of Authorized Material hereunder.

ARTICLE XXIII - SHIPMENT COMBINATIONS

Nothing herein shall preclude Customer from combining Shipment Batches of Authorized Material with similar spent fuel, fresh fuel or target material meeting the acceptance criteria of the ROD held by other foreign customers, subject to DOE's written consent. Authorized Material combined within a Transport Package must be reflected accurately in Appendices A submitted to DOE.

ARTICLE XXIV - APPLICABLE LAW

This Contract and the performance thereunder shall be governed by applicable United States laws and regulations and shall be interpreted in accordance with applicable Federal law.

ARTICLE XXV - COVENANT AGAINST CONTINGENT FEES

A. Customer warrants that no person or agency has been employed or retained to solicit or obtain this Contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, DOE shall have the right to annul this Contract without liability or, in its discretion, to increase the Contract price or consideration, or otherwise recover, the full amount of the contingent fee.

B. "Bona fide agency", as used in this Article, means an established commercial or selling agency, maintained by Customer for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain United States Government contracts, nor holds itself

out as being able to obtain any United States Government contract or contracts through improper influence.

C. "Bona fide employee", as used in this Article, means a person, employed by Customer and subject to Customer's supervision and control as to time, place and manner of performance, who neither exerts or proposes to exert improper influence to solicit or obtain United States Government contracts nor holds out as being able to obtain any United States Government contract or contracts through improper influence.

D. "Contingent fee", as used in this Article, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a United States Government contract.

E. "Improper influence", as used in this Article, means any influence that induces or tends to induce a United States Government employee or officer to give consideration or to act regarding a United States Government contract on any basis other than the merits of the matter.

ARTICLE XXVI - ENTIRE AGREEMENT

This Contract contains the entire agreement between the parties with respect to the acceptance by DOE of irradiated spent fuel elements owned by Customer from the Reactor, and supersedes all prior understandings, negotiations, oral agreements or written agreements between the parties.

ARTICLE XXVII - NO THIRD PARTY BENEFICIARIES

This Contract is solely for the benefit of DOE and Customer, and shall create no rights in favor of, nor may it be enforced by, any other party, person or entity.

ARTICLE XXVIII - AVAILABILITY OF FUNDS

DOE's obligations arising as a result of this Contract are contingent upon the availability of appropriated funds.

ARTICLE XXIX - DISPUTE RESOLUTION

DOE and Customer shall use their best efforts to resolve any dispute arising out of the formation, validity or performance of this Contract as well as the rights of the parties relating thereto within thirty (30) days after receipt of notice of a dispute unless such time period is extended by mutual agreement of the parties. Either party shall notify the other in writing within ten (10) days following its determination that a dispute shall exist, setting forth in the written notice the relief that is requested and the basis for such relief. The other party will respond within ten (10) days with a written statement and explanation of its position. If the dispute is not resolved within twenty (20) days after the initial notification, either party may elect to

pursue a remedy in a federal court of the United States with jurisdiction over the parties and the subject matter of the dispute.

For Information Only

IN WITNESS WHEREOF, the parties hereto have executed this Contract in several counterparts on the day and year first above written.

UNITED STATES OF AMERICA
BY: UNITED STATES DEPARTMENT OF ENERGY

BY: _____

TITLE: _____

CUSTOMER: [Customer Organization]

BY: _____

TITLE: _____

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