



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

P.O. BOX 5000 - CLEVELAND, OHIO 44101 - TELEPHONE (216) 622-9800 - ILLUMINATING BLDG. - 55 PUBLIC SQUARE

Serving The Best Location in the Nation

MURRAY R. EDELMAN

VICE PRESIDENT
NUCLEAR

September 3, 1985
PY-CEI/NRR-0334L

Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
License Condition 20
Nuclear Waste Disposal Services

Dear Mr. Youngblood:

U.S. Department of Energy (DOE) Contract No. DE-CR01-85RW00046, between the United States of America and the Cleveland Electric Illuminating Company for disposal of Spent Nuclear Fuel and/or High Level Radioactive Waste, has been signed by all parties, including DOE. A copy is being sent to our NRR Project Manager, John Stefano. This should close License Condition 20 - Nuclear Waste Disposal Services.

Please feel free to contact me should you have any questions regarding this matter.

Very truly yours,

Murray R. Edelman
Vice President
Nuclear Group

MRE:dlp

cc: Jay Silberg, Esq.
John Stefano (2)
J. Grobe

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U.S. DEPARTMENT OF ENERGY CONTRACT NO. DE-CR01-85RW00046

CONTRACT FOR DISPOSAL OF SPENT NUCLEAR FUEL AND/OR HIGH-LEVEL RADIOACTIVE WASTE.

THIS CONTRACT, entered into this 31st day of July, 1985, by and between the UNITED STATES OF AMERICA (hereinafter referred to as the "Government"); represented by the UNITED STATES DEPARTMENT OF ENERGY (hereinafter referred to as "DOE") and THE CLEVELAND ELECTRIC ILLUMINATING COMPANY (hereinafter referred to as the "Purchaser"), a corporation organized and existing under the laws of the State of Ohio, acting on behalf of itself and as agent for THE DUQUESNE LIGHT COMPANY, a Pennsylvania corporation, THE OHIO EDISON COMPANY, an Ohio corporation, and its subsidiary, PENNSYLVANIA POWER COMPANY and THE TOLEDO EDISON COMPANY, an Ohio corporation.

WITNESSETH THAT:

WHEREAS, the DOE has the responsibility for the disposal of spent nuclear fuel and high-level radioactive waste of domestic origin from civilian nuclear power reactors in order to protect the public health and safety, and the environment; and

WHEREAS, the DOE has the responsibility, following commencement of operation of a repository, to take title to the spent nuclear fuel or high-level radioactive waste involved as expeditiously as practicable upon the request of the generator or owner of such waste or spent nuclear fuel; and

WHEREAS, all costs associated with the preparation, transportation, and the disposal of spent nuclear fuel and high-level radioactive waste from civilian nuclear power reactors shall be borne by the owners and generators of such fuel and waste; and

WHEREAS, the DOE is required to collect a full cost recovery fee from owners and generators delivering to the DOE such spent nuclear fuel and/or high level radioactive waste; and

WHEREAS, the DOE is authorized to enter into contracts for the permanent disposal of spent nuclear fuel and/or high-level radioactive waste of domestic origin in DOE facilities; and

WHEREAS, the Purchaser desires to obtain disposal services from DOE; and

WHEREAS, DOE is obligated and willing to provide such disposal services, under the terms and conditions hereinafter set forth; and

WHEREAS this contract is made and entered into under the authority of the DOE Organization Act (Pub. L. 95-91, 42 U.S.C. 7101 et seq.) and the Nuclear Waste Policy Act of 1982 (Pub. L. 97-425, 42 U.S.C. 10101 et seq.)

NOW, THEREFORE, the parties hereto do hereby agree as follows:

ARTICLE I - DEFINITIONS

As used throughout this contract, the following terms shall have the meanings set forth below:

1. The term "assigned three-month period" means the period that each Purchaser will be assigned by DOE, giving due consideration to the Purchaser's assignment preference, for purposes of reporting kilowatt hours generated by the Purchaser's nuclear power reactor and for establishing fees due and payable to DOE.
2. The term "cask" means a container for shipping spent nuclear fuel and/or high-level radioactive waste which meets all applicable regulatory requirements.

3. The term "civilian nuclear power reactor" means a civilian nuclear powerplant required to be licensed under Sections 103 or 104(h) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2133, 2134(b)).
4. The term "Commission" means the United States Nuclear Regulatory Commission.
5. The term "contract" means this agreement and any duly executed amendment or modification thereto.
6. The term "Contracting Officer" means the person executing this contract on behalf of the Government, and any other officer or civilian employee who is a properly designated Contracting Officer of the DOE; and the term includes, except as otherwise provided in this contract, the authorized representative of a Contracting Officer acting within the limits of his authority.
7. The term "delivery" means the transfer of custody, f.o.b. carrier, of spent nuclear fuel or high-level radioactive waste from Purchaser to DOE at the Purchaser's civilian nuclear power reactor or such other domestic site as may be designated by the Purchaser and approved by DOE.
8. The term "disposal" means the emplacement in a repository of high-level radioactive waste, spent nuclear fuel, or other highly radioactive waste with no foreseeable intent of recovery, whether or not such emplacement permits recovery of such waste.

9. The term "DOE" means the United States Department of Energy or any duly authorized representative thereof, including the Contracting Officer.
10. The term "DOE facility" means a facility operated by or on behalf of DOE for the purpose of disposing of spent nuclear fuel and/or high-level radioactive waste, or such other facility(ies) to which spent nuclear fuel and/or high-level radioactive waste may be shipped by DOE prior to its transportation to a disposal facility.
11. The term "full cost recovery," means the recoupment by DOE, through Purchaser fees and any interest earned, of all direct costs, indirect costs, and all allocable overhead, consistent with generally accepted accounting principles consistently applied, of providing disposal services and conducting activities authorized by the Nuclear Waste Policy Act of 1982 (Pub. L. 97-425). As used herein, the term "cost" includes the application of Nuclear Waste Fund monies for those uses expressly set forth in section 302(d) and (e) of the said Act and all other uses specified in the Act.
12. The term "high-level radioactive waste" (HLW) means -
 - (a) the highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and
 - (b) other highly radioactive material that the Commission, consistent with existing law, determines by rule requires permanent isolation.

13. The term "kilowatt hours generated" means electricity generated by nuclear fuel at a civilian nuclear power reactor specified in Appendix A hereto as measured at the output terminals of the turbine generator, including an equivalent amount of electricity for any process heat generated by the reactor and used other than at the reactor.
14. The term "metric tons uranium" means that measure of weight equivalent to 2,204.6 pounds of uranium and other fissile and fertile material that are loaded into a reactor core as fresh fuel.
15. The term "Purchaser's site" means the location of Purchaser's civilian nuclear power reactor or such other location as the Purchaser may designate.
16. The term "quarterly Treasury rate" means the current value of funds rate as specified by the Treasury Fiscal Requirements Manual, Volume 1, Part 6, section 8020.20. This rate is published quarterly in the Federal Register prior to the beginning of the affected quarter.
17. The term "shipping lot" means a specified quantity of spent nuclear fuel or high-level radioactive waste designated by Purchaser for delivery to DOE beginning on a specified date.
18. The term "spent nuclear fuel" (SNF) means fuel that has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing.
19. The term "spent nuclear fuel and high-level radioactive waste of domestic origin" means irradiated fuel material used, and radioactive wastes resulting from such use, in nuclear power reactors located only in the United States.
20. The term "year" means the period which begins on October 1 and ends on September 30.

ARTICLE II - SCOPE

This contract applies to the delivery by Purchaser to DOE of SNF and/or HLW of domestic origin from civilian nuclear power reactors, acceptance of title by DOE to such SNF and/or HLW, subsequent transportation, and disposal of such SNF and/or HLW and, with respect to such material, establishes the fees to be paid by the Purchaser for the services to be rendered hereunder by DOE. The SNF and/or HLW shall be specified in a delivery commitment schedule as provided in Article V below. The services to be provided by DOE under this contract shall begin, after commencement of facility operations, not later than January 31, 1998 and shall continue until such time as all SNF and/or HLW from the civilian nuclear power reactors specified in Appendix A, annexed hereto and made a part hereof, has been disposed of..

ARTICLE III - TERM

The term of this contract shall be from the date of execution until such time as DOE has accepted, transported from the Purchaser's site(s) and disposed of all SNF and/or HLW of domestic origin from the civilian nuclear power reactor(s) specified in Appendix A.

ARTICLE IV - RESPONSIBILITIES OF THE PARTIES

A. Purchaser's Responsibilities

1. Discharge Information

- (a) On an annual basis, commencing October 1, 1983, the Purchaser shall provide DOE with information on actual discharges to date and projected discharges for the next

ten (10) years in the form and content set forth in Appendix B, annexed hereto and made a part hereof. The information to be provided will include estimates and projections and will not be Purchaser's firm commitment with respect to discharges or deliveries.

(b) No later than October 1, 1983, the Purchaser shall provide DOE with specific information on:

- (1) Total spent nuclear fuel inventory as of April 7, 1983;
- (2) Total number of fuel assemblies removed from the particular reactor core prior to 12:00 A.M. April 7, 1983 for which there are plans for reinsertion in the core, indicating the current planned dates for reinsertion in the core. Estimates of the burned and unburned portion of each individual assembly are to be provided.

(c) In the event that the Purchaser fails to provide the annual forecast in the form and content required by DOE, DOE may, in its sole discretion, require a rescheduling of any delivery commitment schedule then in effect.

2. Preparation for Transportation

- (a) The Purchaser shall arrange for, and provide, all preparation, packaging, required inspections, and loading activities necessary for the transportation of SNF and/or HLW to the DOE facility. The Purchaser shall notify DOE of such activities sixty (60) days prior to the commencement of such activities. The preparatory activities by the Purchaser shall be made in accordance with all applicable laws and regulations relating to the Purchaser's responsibilities hereunder. DOE may designate a representative to observe the preparatory activities conducted by the Purchaser at the Purchaser's site, and the Purchaser shall afford access to such representative.
- (b) Except as otherwise agreed to by DOE, the Purchaser shall advise DOE, in writing as specified in Appendix F, annexed hereto and made a part hereof, as to the description of the material in each shipping lot sixty (60) days prior to scheduled DOE transportation of that shipping lot
- (c) The Purchaser shall be responsible for incidental maintenance, protection and preservation of any and all shipping casks furnished to the Purchaser by DOE for the performance of this contract. The Purchaser shall be liable for any loss of or damage to such DOE-furnished property, and for expenses incidental to such loss or damage while such casks are in the possession and control of the Purchaser except as otherwise provided for hereunder. Routine cask maintenance, such as scheduled overhauls, shall not be the responsibility of the Purchaser.

B. DOE Responsibilities

1. DOE shall accept title to all SNF and/or HLW, of domestic origin, generated by the civilian nuclear power reactor(s) specified in Appendix A, provide subsequent transportation for such material to the DOE facility, and dispose of such material in accordance with the terms of this contract.
2. DOE shall arrange for, and provide, a cask(s) and all necessary transportation of the SNF and/or HLW from the Purchaser's site to the DOE facility. Such cask(s) shall be furnished sufficiently in advance to accommodate scheduled deliveries. Such casks(s) shall be suitable for use at the Purchaser's site, meet applicable regulatory requirements, and be accompanied by pertinent information including, but not limited to, the following:
 - (a) written procedures for cask handling and loading, including specifications on Purchaser-furnished canisters for containment of failed fuel;
 - (b) training for Purchaser's personnel in cask handling and loading, as may be necessary;
 - (c) technical information, special tools, equipment, lifting trunnions, spare parts and consumables needed to use and perform incidental maintenance on the cask(s); and
 - (d) sufficient documentation on the equipment supplied by DOE.
3. DOE may fulfill any of its obligations, or take any action, under this contract either directly or through contractors.

4. DOE shall annually provide to the Purchaser pertinent information on the waste disposal program including information on cost projections, project plans and progress reports.

5.(a) Beginning on April 1, 1991, DOE shall issue an annual acceptance priority ranking for receipt of SNF and/or HLW at the DOE repository. This priority ranking shall be based on the age of SNF and/or HLW as calculated from the date of discharge of such material from the civilian nuclear power reactor. The oldest fuel or waste will have the highest priority for acceptance, except as provided in paragraphs B and D of Article V and paragraph B.3 of Article VI hereof.

(b) Beginning not later than July 1, 1987, DOE shall issue an annual capacity report for planning purposes. This report shall set forth the projected annual receiving capacity for the DOE facility(ies) and the annual acceptance ranking relating to DOE contracts for the disposal of SNF and/or HLW including, to the extent available, capacity information for ten (10) years following the projected commencement of operation of the initial DOE facility.

ARTICLE V - DELIVERY OF SNF AND/OR HLW

A. Description of SNF and HLW

The Purchaser shall deliver to DOE and DOE shall, as provided in this contract, accept the SNF and/or HLW which is described in accordance with Article VI.A. of this contract, for disposal thereof.

B. Delivery Commitment Schedule

1. Delivery commitment schedule(s), in the form set forth in Appendix C annexed hereto and made a part hereof, for delivery of SNF and/or HLW shall be furnished to DOE by Purchaser. After DOE has issued its proposed acceptance priority ranking, as described in paragraph B.5 of Article IV. hereof, beginning January 1, 1992 the Purchaser shall submit to DOE the delivery commitment schedule(s) which shall identify all SNF and/or HLW the Purchaser wishes to deliver to DOE beginning sixty-three (63) months thereafter. DOE shall approve or disapprove such schedules within three (3) months after receipt. In the event of disapproval, DOE shall advise the Purchaser in writing of the reasons for such disapproval and request a revised schedule from the Purchaser, to be submitted to DOE within thirty (30) days after receipt of DOE's notice of disapproval.

2. DOE shall approve or disapprove such revised schedule(s) within sixty (60) days after receipt. In the event of disapproval, DOE shall advise the Purchaser in writing of the reasons for such disapproval and shall submit its proposed schedule(s). If these are not acceptable to the Purchaser, the parties shall promptly seek to negotiate mutually acceptable schedule(s). Purchaser shall have the right to adjust the quantities of SNF and/or HLW plus or minus (+) twenty percent (20%), and the delivery schedule up to two (2) months, until the submission of the final delivery schedule.

C. Final Delivery Schedule

Final delivery schedule(s), in the form set forth in Appendix D, annexed hereto and made a part hereof, for delivery of SNF and/or HLW covered by an

approved delivery commitment schedule(s) shall be furnished to DOE by Purchaser. The Purchaser shall submit to DOE final delivery schedules not less than twelve (12) months prior to the delivery date specified therein. DOE shall approve or disapprove a final delivery schedule within forty-five (45) days after receipt. In the event of disapproval, DOE shall advise the Purchaser in writing of the reasons for such disapproval and shall request a revised schedule from the Purchaser, to be submitted to DOE within thirty (30) days after receipt of DOE's notice of disapproval. DOE shall approve or disapprove such revised schedule(s) within sixty (60) days after receipt. In the event of disapproval, DOE shall advise the Purchaser in writing of the reasons for such disapproval and shall submit its proposed schedule(s). If these are not acceptable to the Purchaser, the parties shall promptly seek to negotiate mutually acceptable schedule(s).

D. Emergency Deliveries

Emergency deliveries of SNF and/or HLW may be accepted by DOE before the date provided in the delivery commitment schedule upon prior written approval by DOE.

E. Exchanges

Purchaser shall have the right to determine which SNF and/or HLW is delivered to DOE; provided, however, that Purchaser shall comply with the requirements of this contract. Purchaser shall have the right to exchange approved delivery commitment schedules with parties to other contracts with DOE for disposal of SNF and/or HLW; provided, however, that DOE shall, in advance, have the right to approve or disapprove, in its sole discretion, any such exchanges. Not less than six (6) months prior to the delivery date

specified in the Purchaser's approved delivery commitment schedule, the Purchaser shall submit to DOE an exchange request, which states the priority rankings of both the Purchaser hereunder and any other Purchaser with whom the exchange of approved delivery commitment schedules is proposed. DOE shall approve or disapprove the proposed exchange within thirty (30) days after receipt. In the event of disapproval, DOE shall advise the Purchaser in writing of the reasons for such disapproval.

ARTICLE VI - CRITERIA FOR DISPOSAL

A. General Requirements

1. Criteria

- (a) Except as otherwise provided in this contract, DOE shall accept hereunder only such SNF and/or HLW which meets the General Specifications for such fuel and waste as set forth in Appendix E, annexed hereto and made a part hereof.
- (b) Purchaser shall accurately classify SNF and/or HLW prior to delivery in accordance with paragraphs B and D of Appendix E.

2. Procedures

- (a) Purchaser shall provide to DOE a detailed description of the SNF and/or HLW to be delivered hereunder in the form and content as set forth in Appendix F, annexed hereto and made a part hereof. Purchaser shall promptly advise DOE of any changes in said SNF and/or HLW as soon as they

become known to the Purchaser.

- (b) DOE's obligation for disposing of SNF under this contract also extends to other than standard fuel; however, for any SNF which has been designated by the Purchaser as other than standard fuel, as that term is defined in Appendix E, the Purchaser shall obtain delivery and procedure confirmation from DOE prior to delivery. DOE shall advise Purchaser within sixty (60) days after receipt of such confirmation request as to the technical feasibility of disposing of such fuel on the currently agreed to schedule and any schedule adjustment for such services.

B. Acceptance Procedures

1. Acceptance Priority Ranking

Delivery commitment schedules for SNF and/or HLW may require the disposal of more material than the annual capacity of the DOE disposal facility (or facilities) can accommodate. The following acceptance priority ranking will be utilized:

- (a) Except as may be provided for in subparagraph (b) below and Article V.D of this contract, acceptance priority shall be based upon the age of the SNF and/or HLW as calculated from the

date of discharge of such material from the civilian nuclear power reactor. DOE will first accept from Purchaser the oldest SNF and/or HLW for disposal in the DOE facility, except as otherwise provided for in paragraphs B, D and E of Article V.

(b) Notwithstanding the age of the SNF and/or HLW, priority may be accorded any SNF and/or HLW removed from a civilian nuclear power reactor that has reached the end of its useful life or has been shut down permanently for whatever reason.

2. Verification of SNF and/or HLW

During cask loading and prior to acceptance by DOE for transportation to the DOE facility, the SNF and/or HLW description of the shipping lot shall be subject to verification by DOE. To the extent the SNF and/or HLW is consistent with the description submitted and approved, in accordance with Appendices E and F, DOE agrees to accept such SNF and/or HLW for disposal when DOE has verified the SNF and/or HLW description, determined the material is properly loaded, packaged, marked, labeled and ready for transportation, and has taken custody, as evidenced in writing, of the material at the Purchaser's site, f.o.b. carrier. A properly executed off-site radioactive shipment record describing cask contents must be prepared by the Purchaser along with a signed certification which states: "This is to certify that the above-named materials are properly described, classified, packaged, marked and labeled and are in proper condition for transfer according to the applicable regulations of the U. S. Department of Transportation."

3. Improperly Described SNF and/or HLW

- (a) Prior to Acceptance - If SNF and/or HLW is determined by DOE to be improperly described prior to acceptance by DOE at the Purchaser's site, DOE shall promptly notify the Purchaser in writing of such determination. DOE reserves the right, in its sole discretion, to refuse to accept such SNF and/or HLW until the SNF and/or HLW has been properly described. The Purchaser shall not transfer such SNF and/or HLW to DOE unless DOE agrees to accept such SNF and/or HLW under such other arrangements as may be agreed to, in writing, by the parties.
- (b) After Acceptance - If subsequent to its acceptance DOE finds that such SNF and/or HLW is improperly described, DOE shall promptly notify the Purchaser, in writing, of such finding. In the event of such notification, Purchaser shall provide DOE with a proper designation within thirty (30) days. In the event of a failure by the Purchaser to provide such proper designation, DOE may hold in abeyance any and all deliveries scheduled hereunder.

ARTICLE VII - TITLE

Title to all SNF and/or HLW accepted by DOE for disposal shall pass to DOE at the Purchaser's site as provided for in Article VI hereof. DOE shall be

solely responsible for control of all material upon passage of title. DOE shall have the right to dispose as it sees fit of any SNF and/or HLW to which it has taken title. The Purchaser shall have no claim against DOE or the Government with respect to such SNF or HLW nor shall DOE or the Government be obligated to compensate the Purchaser for such material.

ARTICLE VIII - FEES AND TERMS OF PAYMENT

A. Fees

1. Effective April 7, 1983 Purchaser shall be charged a fee in the amount of 1.0 mill per kilowatt-hour (1M/KWH) on electricity generated by Purchaser's nuclear power reactor(s). The said fee shall be paid as specified in paragraph B of this Article VIII.
2. For SNF, or solidified high-level radioactive waste derived from SNF, which fuel was used to generate electricity in a civilian nuclear power reactor prior to April 7, 1983, a one-time fee will be assessed by applying industry-wide average dollar per kilogram charges to four (4) distinct ranges of fuel burnup so that the integrated cost across all discharged (i.e. spent) fuel is equivalent to an industry-wide average charge of 1.0 mill per kilowatt-hour. For purposes of this contract, discharged nuclear fuel is that fuel removed from the reactor core with no plans for reinsertion. In the event that any such fuel withdrawn with plans for reinsertion is not reinserted, then the applicable fee for such fuel shall be calculated as set forth in this paragraph 2. The categories of spent nuclear fuel burnup and the fee schedule

are listed below:

<u>Nuclear Spent Fuel</u> <u>Burnup Range</u>	<u>Dollars per</u> <u>Kilogram</u> <u>(1982 Dollars)</u>
0 - 5,000 MWD/MTU	\$ 80.00
5,000 - 10,000 MWD/MTU	\$ 142.00
10,000 - 20,000 MWD/MTU	\$ 162.00
over 20,000 MWD/MTU	\$ 184.00

This fee shall not be subject to adjustment, and the payment thereof by the Purchaser shall be made to DOE as specified in paragraph B of this Article VIII.

3. For in-core fuel as of April 7, 1983, that portion of the fuel burned through April 6, 1983 shall be subject to the one-time fee as calculated in accordance with the following methodology: [a] determine the total weight in kilograms of uranium loaded initially in the particular core; [b] determine the total megawatt-days (thermal) which have been generated by all of the fuel assemblies in the said core as of 12:00 A.M. April 7, 1983; [c] divide the megawatt-days (thermal) generated in the said core by the total metric tons of initially loaded uranium in that core and multiply the quotient by the conversion factor 0.0078 to obtain a value in dollars per kilogram; and [d] multiply the dollars per kilogram value by the kilograms determined in [a] above to derive the dollar charge for the one-time fee to be paid for the specified in-core fuel as of 12:00 A.M. April 7, 1983. For purposes of this contract, in-core fuel is that fuel in the reactor core as of the date specified, plus any fuel removed from the reactor with plans to reinsert. That portion of such fuel unburned as of 12:00 A.M. April 7, 1983 shall be subject to the 1.0 mill per kilowatt-hour charge.

4. DOE will annually review the adequacy of the fees and adjust the 1M/KWH fee, if necessary, in order to assure full cost recovery by the Government. Any proposed adjustment to the said fee will be transmitted to Congress and shall be effective after a period of ninety (90) days of continuous session has elapsed following receipt of such transmittal unless either House of Congress adopts a resolution disapproving the proposed adjustment. Any adjustment to the 1M/KWH fee under paragraph A.1. of this Article VIII shall be prospective.

B. Payment

1. For electricity generated by the Purchaser's civilian nuclear power reactor(s) on or after April 7, 1983, fees shall be paid quarterly by the Purchaser and must be received by DOE not later than the close of business on the last business day of the month following the end of each assigned three month period. ~~The first payment shall be due on July 31, 1983, for the period N/A April 7, 1983 to June 30, 1983. A one time adjustment period payment shall be N/A due on _____, for the period _____ to _____. N/A~~

The assigned three month period, for purposes of payment and reporting of kilowatt hours, shall begin October 1, 1985.

2. For SNF discharged prior to April 7, 1983, and for in-core burned fuel as of 12:00 A.M. April 7, 1983, the Purchaser shall, within two (2) years of contract execution, select one of the following fee payment options:

- (a) OPTION 1 - The Purchaser's financial obligation for said fuel shall be prorated evenly over forty (40) quarters and will consist of the fee plus interest on the outstanding fee

balance. The interest from April 7, 1983, to date of the first payment is to be calculated based upon the 13-week Treasury bill rate, as reported on the first such issuance following April 7, 1983, and compounded quarterly thereafter by the 13-week Treasury bill rates as reported on the first such issuance of each succeeding assigned three-month period. Beginning with the first payment, interest is to be calculated on Purchaser's financial obligation plus accrued interest, at the ten-year Treasury note rate in effect on the date of the first payment. In no event shall the end of the forty (40) quarters extend beyond the first scheduled delivery date as reflected in the DOE-approved delivery commitment schedule. All payments shall be made concurrently with the assigned three month period payments. At any time prior to the end of the forty (40) quarters, Purchaser may, without penalty, make a full or partial lump sum payment at any of the assigned three month period payment dates. Subsequent quarterly payments will be appropriately reduced to reflect the reduction in the remaining balance in the fee due and payable. The remaining financial obligation, if any, will be subject to interest at the same ten-year Treasury note rate over the remainder of the ten year period.

- (b) OPTION 2 - The Purchaser's financial obligation shall be paid in the form of a single payment anytime prior to the first delivery, as reflected in the DOE approved delivery commitment schedule, and shall consist of the fee plus interest on the

outstanding fee balance. Interest is to be calculated from April 7, 1983, to the date of the payment based upon the 13-week Treasury bill rate, as reported on the first such issuance following April 7, 1983, and compounded quarterly thereafter by the 13-week Treasury bill rates as reported on the first such issuance of each succeeding assigned three-month period until payment.

- (c) OPTION 3 - The Purchaser's financial obligation shall be paid prior to June 30, 1985, or prior to two (2) years after contract execution, whichever comes later, in the form of a single payment and shall consist of all outstanding fees for SNF and in-core fuel burned prior to April 7, 1983. Under this option, no interest shall be due to DOE from April 7, 1983, to the date of full payment on the outstanding fee balance.

3. Method of Payment

(a) Payments shall be made by wire transfer, in accordance with instructions specified by DOE in Appendix G, annexed hereto and made a part hereof, and must be received within the time periods specified in paragraph B.1. of this Article VIII.

(b) The Purchaser will complete a Standard Remittance Advice, as set forth in Appendix G, for each assigned three month period payment, and mail it postmarked no later than the last business day of the month following each assigned three month period to "Department of Energy, Office of Controller, Cash Management Division, Box 500, Room D-208, Germantown, Maryland 20874.

4: Any fees not paid on a timely basis or underpaid because of miscalculation will be subject to interest as specified in paragraph C of this Article VIII.

C. Interest on Late Fees

1. DOE will notify the Purchaser of amounts due only when unpaid or underpaid by the dates specified in paragraph B above. Interest will be levied according to the following formula:

$$\begin{array}{rcccl} \text{Interest} = & \text{Unpaid Balance Due} & & \text{Quarterly} & \text{Number of} \\ & & & & \text{Months Late Including} \\ & \text{To DOE For} & \times & \text{Treasury} & \times \text{Month Of Payment (Fractions} \\ & \text{Assigned Three} & & \text{Rate Plus} & \text{Rounded Up to Whole Months)} \\ & \text{Month Period} & & \text{Six Percent} & 12 \\ & & & (6\%) & \end{array}$$

2. Interest is payable at any time prior to the due date for the subsequent assigned three month period fee payment. Nonpayment by the end of the subsequent assigned three month period will result in compounding of interest due. Purchaser shall complete a Standard Remittance Advice for interest payments.

3. Following the assessment of a late fee by DOE, payments will be applied against accrued interest first and the principal thereafter.

D. Effect of Payment

Upon payment of all applicable fees, interest and penalties on unpaid or underpaid amounts, the Purchaser shall have no further financial obligation to DOE for the disposal of the accepted SNF and/or HLW.

E. Audit

1. The DOE or its representative shall have the right to perform any audits or inspections necessary to determine whether Purchaser is paying the correct amount under the fee schedule and interest provisions set forth in paragraphs A, B and C above.

2. Nothing in this contract shall be deemed to preclude an audit by the General Accounting Office of any transaction under this contract.

3. The Purchaser shall furnish DOE with such records, reports and data as may be necessary for the determination of quantities delivered hereunder and for final settlement of amounts due under this contract and shall retain and make available to DOE and its authorized representative for examination at all reasonable times such records, reports and data for a period of three (3) years from the completion of delivery of all material under this contract.

ARTICLE IX - DELAYS

A. Unavoidable Delays by Purchaser or DOE

Neither the Government nor the Purchaser shall be liable under this contract for damages caused by failure to perform its obligations hereunder, if such failure arises out of causes beyond the control and without the fault or negligence of the party failing to perform. In the event circumstances beyond the reasonable control of the Purchaser or DOE -- such as acts of God, or of the public enemy, acts of Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and unusually severe weather--- cause delay in scheduled delivery, acceptance or transport of SNF and/or HLW, the party experiencing the delay will notify the other party as soon as possible after such delay is ascertained and the parties will readjust their schedules, as appropriate, to accommodate such delay.

B. Avoidable Delays by Purchaser or DOE

In the event of any delay in the delivery, acceptance or transport of SNF and/or HLW to or by DOE caused by circumstances within the reasonable control of either the Purchaser or DOE or their respective contractors or suppliers, the charges and schedules specified by this contract will be equitably adjusted to reflect any estimated additional costs incurred by the party not responsible for or contributing to the delay.

ARTICLE X - SUSPENSION

A. In addition to any other rights DOE may have hereunder, DOE reserves the right, at no cost to the Government, to suspend this contract or any portion thereof upon written notice to the Purchaser within ninety (90) days of the Purchaser's failure to perform its obligations hereunder, and the Purchaser's failure to take corrective action within thirty (30) days after written notice of such failure to perform as provided above, unless such failure shall arise from causes beyond the control and without the fault or negligence of the Purchaser, its contractors or agents. However, the Purchaser's obligation to pay fees required hereunder shall continue unaffected by any suspension. Any such suspension shall be rescinded if and when DOE determines that Purchaser has completed corrective action.

B. The DOE reserves the right to suspend any scheduled deliveries in the event that a national emergency requires that priority be given to Government programs to the exclusion of the work under this contract. In the event of such a suspension by the Government, the DOE shall refund that portion

of payments representing services not delivered as determined by the Contracting Officer to be an equitable adjustment. Any disagreement arising from the refund payment, if any, shall be resolved as provided in the clause of this contract, entitled "DISPUTES."

ARTICLE XI - REMEDIES

Nothing in this contract shall be construed to preclude either party from asserting its rights and remedies under the contract or at law.

ARTICLE XII - NOTICES

All notices and communications between the parties under this contract (except notices published in the Federal Register) shall be in writing and shall be sent to the following addressees:

To DOE:

U.S. Department of Energy
Procurement and Assistance Management
Directorate
Office of Procurement Operations
Washington, D.C. 20585
Attention: Contracting Officer

To the Purchaser:

The Cleveland Electric Illuminating Company
P.O. Box 5000
Cleveland, Ohio 44101
Attention: Manager
Purchasing Department

However, the parties may change the addresses or addressees for such notices or communications without formal modification to this contract; provided, however, that notice of such changes shall be given by registered mail.

ARTICLE XIII - REPRESENTATION CONCERNING NUCLEAR HAZARDS INDEMNITY

A. DOE represents that it will include in its contract(s) for the operation of any DOE facility an indemnity agreement based upon Section 170(d) of the Atomic Energy Act of 1954, as amended, a copy of which agreement shall be furnished to the Purchaser; that under said agreement, DOE shall have agreed to indemnify the contractor and other persons indemnified against claims for public liability (as defined in said Act) arising out of or in connection with contractual activities; that the indemnity shall apply to covered nuclear incidents which (1) take place at a contract location; or (2) arise out of or in the course of transportation of source, special nuclear or by-product material to or from a contract location. The obligation of DOE to indemnify shall be subject to the conditions stated in the indemnity agreement.

B. The provisions of this Article XIII shall continue beyond the term of this contract.

ARTICLE XIV - ASSIGNMENT

The rights and duties of the Purchaser may be assignable with transfer of title to the SNF and/or HLW involved; provided, however, that notice of any such transfer shall be made to DOE within ninety (90) days of transfer.

ARTICLE XV - AMENDMENTS

The provisions of this contract have been developed in the light of uncertainties necessarily attendant upon long-term contracts. Accordingly, at the request of either DOE or Purchaser, the parties will negotiate and, to the extent mutually agreed, amend this contract as the parties may deem to be necessary or proper to reflect their respective interests; provided, however, that any such amendment shall be consistent with the DOE final rule published in the Federal Register on April 18, 1983 entitled, "Standard Contract for Disposal of SNF and/or HLW", as the same may be amended from time to time.

ARTICLE XVI - DISPUTES

A. Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Purchaser. The decision of the Contracting Officer shall be final and conclusive unless within ninety (90) days from the date of receipt of such copy, the Purchaser mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the DOE Board of Contract Appeals (Board). The decision of the Board shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith or not supported by substantial evidence. In connection with any appeal proceeding under this clause, the Purchaser shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

B. For Purchaser claims of more than \$50,000, the Purchaser shall submit with the claim a certification that the claim is made in good faith; the supporting data are accurate and complete to the best of the Purchaser's knowledge and belief; and the amount requested accurately reflects the contract adjustment for which the Purchaser believes the Government is liable. The certification shall be executed by the Purchaser if an individual. When the Purchaser is not an individual, the certification shall be executed by a senior company official in charge at the Purchaser's plant or location involved, or by an officer or general partner of the Purchaser having overall responsibility for the conduct of the Purchaser's affairs.

C. For Purchaser claims of \$50,000 or less, the Contracting Officer must render a decision within sixty (60) days. For Purchaser claims in excess of \$50,000, the Contracting Officer must decide the claim within sixty (60) days or notify the Purchaser of the date when the decision will be made.

D. This "Disputes" clause does not preclude consideration of law questions in connection with decisions provided for in paragraph A above; provided, however, that nothing in this contract shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

ARTICLE XVII - OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE XVIII - COVENANT AGAINST CONTINGENT FEES

The Purchaser warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Purchaser for the purpose of securing business. For breach or violation of this warranty, the Government 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 such commission, brokerage, or contingent fee.

ARTICLE XIX - EXAMINATION OF RECORDS

The Purchaser agrees that the Comptroller General of the United States or any of his duly authorized representatives shall have access to and the right to examine any directly pertinent books, documents, papers and records of the Purchaser involving transactions related to this contract until the expiration of three years after final payment under this contract.

ARTICLE XX - PERMITS

The Government and the Purchaser shall procure all necessary permits or licenses (including any special nuclear material licenses) and comply with all applicable laws and regulations of the United States, States and municipalities—necessary to execute their respective responsibilities and obligations under this contract.

ARTICLE XXI - RIGHTS IN TECHNICAL DATA

A. Definitions.

1. "Technical data" means recorded information regardless of form or characteristic, of a specific or technical nature. It may, for example, document research, experimental, developmental, or demonstration, or engineering work, or be usable or used to define a design or process, or to procure, produce, support, maintain, or operate material. The data may be graphic or pictorial delineations in media such as drawings or photographs, text in specifications or related performance or design-type documents or computer software (including computer programs, computer software data bases, and computer software documentation). Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical data as used herein do not include financial reports, cost analyses, and other information incidental to contract administration.

2. "Proprietary data" means technical data which embody trade secrets developed at private expense, such as design procedures or techniques, chemical composition of materials, or manufacturing methods, processes, or treatments, including minor modifications thereof, provided that such data:

(a) Are not generally known or available from other sources without obligation concerning their confidentiality;

-(b) Have not been made available by the owner to others without obligation concerning its confidentiality; and

(c) Are not already available to the Government without obligation concerning their confidentiality.

3. "Contract data" means technical data first produced in the performance of the contract, technical data which are specified to be delivered under the contract, or technical data actually delivered in connection with the contract.

4. "Unlimited rights" means rights to use, duplicate, or disclose technical data, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so.

B. Allocation of rights.

1. The Government shall have:

(a) Unlimited rights in contract data except as otherwise provided below with respect to proprietary data properly marked as authorized by this clause;

(b) The right to remove, cancel, correct or ignore any marking not authorized by the terms of this contract on any technical data furnished hereunder, if in response to a written inquiry by DOE concerning the proprietary nature of the markings, the Purchaser fails to respond thereto within 60 days or fails to substantiate the proprietary nature of the markings. In either case, DOE will notify the Purchaser of the action taken;

(c) No rights under this contract in any technical data which are not contract data.

2. Subject to the foregoing provisions of this rights in technical data clause, the Purchaser shall have the right to mark proprietary data it furnishes under the contract with the following legend and no other, the terms of which shall be binding on the Government:

LIMITED RIGHTS LEGEND

This "proprietary data," furnished under "Contract No. _____" with the U. S. Department of Energy may be duplicated and used by the Government with the express limitations that the "proprietary data" may not be disclosed outside the Government or be used for purposes of manufacture without prior permission of the Purchaser, except that further disclosure or use may be made solely for the following purposes:

(a) This "proprietary data" may be disclosed for evaluation purposes under the restriction that the "proprietary data" be retained in confidence and not be further disclosed;

(b) This "proprietary data" may be disclosed to contractors participating in the Government's program of which this contract is a part, for information or use in connection with the work performed under their contracts and under the restriction that the "proprietary data" be retained in confidence and not be further disclosed; or

(c) This "proprietary data" may be used by the Government or others on its behalf for emergency work under the restriction that the "proprietary data" be retained in confidence and not be further disclosed. This legend shall be marked on any reproduction of this data in whole or in part.

3. In the event that proprietary data of a third party, with respect to which the Purchaser is subject to restrictions on use or disclosure, is furnished with the Limited Rights Legend above, Purchaser shall secure the agreement of such third party to the rights of the Government as set forth in the Limited Rights Legend. DOE shall upon request furnish the names of those contractors to which proprietary data has been disclosed.

ARTICLE XXII - ENTIRE CONTRACT

A. This contract, which consists of Articles I through XXII and Appendices A through G, annexed hereto and made a part hereof, contains the entire agreement between the parties with respect to the subject matter hereof. Any representation, promise, or condition not incorporated in this contract shall not be binding on either party. No course of dealing or usage of trade or course of performance shall be relevant to explain or supplement any provision contained in this contract.

B. Nothing in this contract is intended to affect in any way the contractual obligation of any other persons with whom the Purchaser may have contracted with respect to assuming some or all disposal costs or to accept title to SNF and/or HLW.

C. The following corporations are owners of the nuclear power reactor(s) or other facilities identified in Appendix A to this contract, as tenants in common with undivided ownership interests in the percentage shares set forth opposite their respective names as follows:

The Cleveland Electric Illuminating Company	- 31.11%
The Duquesne Light Company	- 13.74%
The Ohio Edison Company	- 30.00%
The Pennsylvania Power Company	- 5.24%
The Toledo Edison Company	- 19.91%

Performance of this contract shall be for the account of, and all property and rights of the owners acquired as Purchaser under this contract, shall vest in, such corporations severally in the aforesaid respective percentage shares; and all obligations of the Purchaser under this contract, including any charges hereunder, shall not be joint obligations but shall be the several obligations of such corporations in the aforesaid respective percentage shares.

Each of the aforesaid corporations represents that the designated Purchaser has the full authority and responsibility for the giving and receiving notices hereunder, the receiving and payment of invoices, the making of any elections of the Purchaser and the exercise of all other rights conferred on the Purchaser in this contract.

D. Appendices:

- A. Nuclear Power Reactor(s) or Other Facilities Covered
- B. Discharge Information (Ten Year; Annual)
- C. Delivery Commitment Schedule
- D. Final Delivery Schedule
- E. General Specifications
- F. Detailed Description of Purchaser's Fuel
- G. Standard Remittance Advice

SIGNATURE PAGE NO. 1

IN WITNESS WHEREOF, the parties hereto have executed this contract as of the day and year first above written.

UNITED STATES OF AMERICA

UNITED STATES DEPARTMENT OF ENERGY

BY:

Christopher T. Jedy
(Contracting Officer)

WITNESSES AS TO EXECUTION ON BEHALF
OF PURCHASER

Laurence A. St. Kaushik
(Name)
6619 Cheryl Drive NE
Independent, WA 98131
(Address)

Sally R. Mc Carthy
(Name)
4298 Rocky River Dr.
Cleveland Ohio 44135
(Address)

THE CLEVELAND ELECTRIC ILLUMINATING
COMPANY

(Purchaser's Company Name)

By:

R. A. Miller
Title: President

E. Lyle Pepin Secretary
I, _____, certify that I am the _____ of the corporation named as Purchaser herein; that R. A. Miller who signed this document on behalf of the Purchaser was then President of said corporation; that said document was duly signed for and on behalf of said corporation by authority of its governing body and is within the scope of its corporate powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said corporation this 8th day of April, 1985

(Corporate Seal)

E. Lyle Pepin
(Signature)

THE TOLEDO EDISON COMPANY

(Owner's Company Name)

BY:

TITLE: VICE PRESIDENT, NUCLEAR

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said corporation this 12th day of April, 1985.

(SIGNATURE)

ATTACHMENT A

SIGNATURE PAGE NO. 3

WITNESS AS TO EXECUTION ON BEHALF
OF OWNER

THE OHIO EDISON COMPANY

(Owner's Company Name)

Tommy E. Foster
(Name)OHIO EDISON COMPANY
76 S. MAIN ST. AKRON, OHIO 44308
(Address)BY: Robert J. McWhorterTITLE: SENIOR VICE PRESIDENT

I, Gregory F. LaFlame, certify that I am the Secretary of
the corporation named as Owner herein; that Robert J. McWhorter who
signed this document on behalf of the Owner was then Senior Vice President
of said corporation; that said document was duly signed for and on behalf of said
corporation by authority of its governing body and within the scope of its
corporate powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said
corporation this 7th day of May, 1985

(Corporate Seal)

G. F. LaFlame
(SIGNATURE)

WITNESS AS TO EXECUTION ON BEHALF
OF OWNER

THE DUQUESNE LIGHT COMPANY

Robert D. DeLeon
(Name)

(Owner's Company Name)

Duquesne Light Company, Robinson-
Plaza, Bldg. #3, Pittsburgh, PA 15205
(Address)

BY: J. J. Carey

TITLE: Vice President, Nuclear Group

I, - Diane S. Eismont, certify that I am the Secretary of
the corporation named as Owner herein; that J. J. Carey who
signed this document on behalf of the Owner was then Vice President, Nuclear Group
of said corporation; that said document was duly signed for and on behalf of said
corporation by authority of its governing body and within the scope of its
corporate powers.

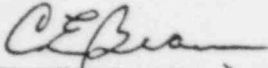
IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said
corporation this 24th day of April, 1985.

(Corporate Seal)

Diane S. Eismont
(SIGNATURE)

WITNESS AS TO EXECUTION ON BEHALF
OF OWNER

THE PENNSYLVANIA POWER COMPANY



(Name)

(Owner's Company Name)

Pennsylvania Power Company
1 E. Washington St., New Castle, PA 16103

(Address)

BY: 

TITLE: Vice President

I, Robert P. Wushinske, certify that I am the Secretary of
the corporation named as Owner herein; that W. F. Reeher who
signed this document on behalf of the Owner was then Vice President
of said corporation; that said document was duly signed for and on behalf of said
corporation by authority of its governing body and within the scope of its
corporate powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said
corporation this 14th day of May, 1985.

(Corporate Seal)


(SIGNATURE)

ATTACHMENT B

APPENDIX A

NUCLEAR POWER REACTOR(S) OR OTHER FACILITIES COVERED

Purchaser The Cleveland Electric Illuminating Company

Contract Number/Date DE-CR01-85BW00046

Reactor/Facility Name Perry Nuclear Power Station, Unit Nos. 1 and 2

Location:

Street 10 Center Road

City Perry

County/State Lake / Ohio

Zip Code 44081

Capacity (MWE) - Gross 1252 each

Reactor Type:

BWR ☒

PWR ☐

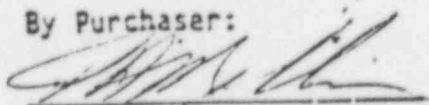
Other (Identify) _____

Facility Description General Electric BWR-6

Date of Commencement of Operation October 1, 1985
(actual or estimated)

NRC License #: Applied for

By Purchaser:


Signature

President

Title

April 8, 1985

Date

APPENDIX B

TEN YEAR DISCHARGE FORECAST

To be used for DOE planning purposes only and does not represent a firm commitment by Purchaser.

Purchaser _____

Contract Number/Date _____ / _____

Reactor/Facility Name _____

Location:

Street _____

City _____

County/State _____ / _____

Zip Code _____

Type: BWR ☐

PWR ☐

Other (Identify) _____

Discharge date - mo/yr
(or refueling shut down
date)

Metric tons
- initial

- discharged

Number of assemblies
discharged (per cycle)

	1	2	3	4	5	6	7	8	9	10	
											10 yr Total

By Purchaser:

Signature

Title

Date

APPENDIX B
(Enclosure 1)

ACTUAL DISCHARGES

Purchaser _____

Contract Number/Date _____ / _____

Reactor/Facility Name _____

Location: _____

Street _____

City _____

County/State _____ / _____

Zip Code _____

Type:

BWR ☐

PWR ☐

Other (Identify) _____

Refueling Shutdown Date _____

Metric Tons Uranium (Initial/Discharged): _____ / _____
Initial Discharged

Number of Assemblies Discharged: _____

Any false, fictitious or fraudulent statement may be punishable by fine or imprisonment (U.S. Code, Title 18, Section 1001).

By Purchaser:

Signature

Title

Date

APPENDIX C

DELIVERY COMMITMENT SCHEDULE

This delivery commitment schedule shall be submitted by Purchaser to DOE as specified in Article V.B. of this contract.

Purchaser _____

Contract Number/Date _____ / _____

Reactor/Facility Name _____

Location:

Street _____

City _____

County/State _____ / _____

Zip Code _____

Type Cask Required: _____

Shipping Lot Number _____
(Assigned by DOE)

Proposed
Shipping Mode: Truck ☐

Proposed Delivery Date _____

Rail ☐

DOE Assigned Delivery
Commitment Date _____

Barge ☐

Range of Discharge
Date(s) (Earliest
to Latest) _____ / _____ / _____ To _____ / _____ / _____
Mo Day Yr Mo Day Yr

Metric Tons Uranium: (Initial) _____
(Discharged) _____

Number of Assemblies:

BWR _____

PWR _____

Other _____

APPENDIX C

Unless otherwise agreed to in writing by DOE, the Purchaser shall furnish herewith to DOE suitable proof of ownership of the SNF and/or HLW to be delivered hereunder. The Purchaser shall notify DOE in writing at the earliest practicable date of any change in said ownership.

Any false, fictitious or fraudulent statement may be punishable by fine or imprisonment (U.S. Code, Title 18, Section 1001).

By Purchaser:

_____ Signature	_____ Title	_____ Date
--------------------	----------------	---------------

Approved by DOE:

_____ Technical Representative	_____ Title	_____ Date
-----------------------------------	----------------	---------------

_____ Contracting Officer	_____ Date
------------------------------	---------------

APPENDIX D

FINAL DELIVERY SCHEDULE

(To be submitted to DOE by Purchaser for each designated Purchaser Delivery site not later than twelve (12) months prior to estimated date of first delivery.)

Purchaser: _____

Contract Number/Date _____ / _____

Reactor/Facility Name _____

Location:

Street _____

City _____

County/State _____ / _____

Zip Code _____

Type(s) cask(s) required: _____ # Assemblies per cask _____

Shipping Lot Number _____ Shipping Mode: Truck _____
(Assigned by DOE)

Rail _____

Barge _____

Metric Tons Uranium: (Initial) _____
(Discharged) _____

Range of Discharge _____ / _____ / _____ To _____ / _____ / _____
Date(s) (Earliest _____ / _____ / _____
to Latest) (From approved commitment schedule)

Number of Assemblies:

BWR _____

PWR _____

Other _____

Purchaser's Delivery First _____ / _____ / _____ Last _____ / _____ / _____
Estimate Mo Day Yr Mo Day Mo

APPENDIX D

Unless otherwise agreed to in writing by DOE, the Purchaser shall furnish herewith to DOE suitable proof of ownership of the SNF and/or HLW to be delivered hereunder. The Purchaser shall notify DOE in writing at the earliest practicable date of any change in said ownership.

To confirm acceptability of delivery date(s):

Purchaser Contact _____ Title _____
Phone _____
DOE Contact _____ Title _____
Phone _____

Any false, fictitious or fraudulent statement may be punishable by fine or imprisonment (U.S. Code, Title 18, Section 1001).

By Purchaser:

Signature Title Date

Approved by DOE:

Technical Representative Title Date

Contracting Officer Date

APPENDIX E
GENERAL SPECIFICATIONS

A. Fuel Category Identification.

1. Categories--Purchaser shall use reasonable efforts, utilizing technology equivalent to and consistent with the commercial practice, to properly classify Spent Nuclear Fuel (SNF) prior to delivery to DOE, as follows:
 - a. "Standard Fuel" means SNF that meets all the General Specifications therefor set forth in paragraph B below.
 - b. "Nonstandard Fuel" means SNF that does not meet one or more of the General Specifications set forth in subparagraphs 1 through 5 of paragraph B below, and which is classified as Nonstandard Fuel Classes NS-1 through NS-5, pursuant to paragraph B below.
 - c. "Failed Fuel" means SNF that meets the specifications set forth in subparagraphs 1 through 3 of paragraph B below, and which is classified as Failed Fuel Class F-1 through F-3 pursuant to subparagraph 6 of paragraph B below.
 - d. Fuel may have "Failed Fuel" and/or several "Nonstandard Fuel" classifications

B. Fuel Description and Subclassification--General Specifications.

1. Maximum Nominal Physical Dimensions.

	Boiling Water Reactor (BWR)	Pressurized Water Reactor (PWR)
Overall Length	14 feet, 11 inches	14 feet, 10 inches
Active Fuel Length	12 feet, 6 inches	12 feet, 0 inches
Cross Section*	6 inches x 6 inches	9 inches x 9 inches

*The cross section of the fuel assembly shall not include the channel.

NOTE: Fuel that does not meet these specifications shall be classified as Nonstandard Fuel--Class NS-1.

APPENDIX E

2. Nonfuel Components. Nonfuel components including, but not limited to, control spiders, burnable poison rod assemblies, control rod elements, thimble plugs, fission chambers, and primary and secondary neutron sources, that are contained within the fuel assembly, or BWR channels that are an integral part of the fuel assembly, which do not require special handling, may be included as part of the spent nuclear fuel delivered for disposal pursuant to this contract.

NOTE: Fuel that does not meet these specifications shall be classified as Nonstandard Fuel--Class NS-2.

3. Cooling. The minimum cooling time for fuel is five (5) years.

NOTE: Fuel that does not meet this specification shall be classified as Nonstandard Fuel--Class NS-3.

4. Non-LWR Fuel. Fuel from other than LWR power facilities shall be classified as Nonstandard Fuel--Class NS-4. Such fuel may be unique and require special handling, storage, and disposal facilities.
5. Consolidated Fuel Rods. Fuel which has been disassembled and stored with the fuel rods in a consolidated manner shall be classified as Nonstandard Fuel Class NS-5.

6. Failed Fuel

- a. Visual Inspection.

Assemblies shall be visually inspected for evidence of structural deformity or damage to cladding or spacers which may require special handling. Assemblies which [i] are structurally deformed or have damaged cladding to the extent that special handling may be required or [ii] for any reason cannot be handled with normal fuel handling equipment shall be classified as Failed Fuel--Class F-1.

- b. Previously Encapsulated Assemblies.

Assemblies encapsulated by Purchaser prior to classification hereunder shall be classified as Failed Fuel--Class F-3. Purchaser shall advise DOE of the reason for the prior encapsulation of assemblies in sufficient detail so that DOE may plan for appropriate subsequent handling.

- c. Regulatory Requirements.

Spent fuel assemblies shall be packaged and placed in casks so that all applicable regulatory requirements are met.

APPENDIX E

C. Summary of Fuel Classifications.

1. Standard Fuel:

- a. Class S-1: PWR
- b. Class S-2: BWR

2. Nonstandard Fuel:

- a. Class NS-1: Physical Dimensions
- b. Class NS-2: Non Fuel Components
- c. Class NS-3: Short Cooled
- d. Class NS-4: Non-LWR
- e. Class NS-5: Consolidated Fuel Rods.

3. Failed Fuel:

- a. Class F-1: Visual Failure or Damage
- b. Class F-2: Radioactive "Leakage"
- c. Class F-3: Encapsulated

D. High-Level Radioactive Waste.

The DOE shall accept high-level radioactive waste. Detailed acceptance criteria and general specifications for such waste will be issued by the DOE no later than the date on which DOE submits its license application to the Nuclear Regulatory Commission for the first disposal facility.

APPENDIX F

DETAILED DESCRIPTION OF PURCHASER'S FUEL

This information shall be provided by Purchaser for each distinct fuel type within a Shipping Lot not later than sixty (60) days prior to the schedule transportation date.

Purchaser _____

Contract Number/Date _____ / _____

Reactor/Facility Name _____

I. Drawings included in generic dossier: _____

1. Fuel Assembly
DWG# _____

Dossier Number: _____

DOE Shipping Lot #: _____

Assemblies Described: _____ BWR

_____ PWR

2. Upper & Lower end fittings
DWG# _____

_____ Other

II. DESIGN MATERIAL DESCRIPTIONS

Fuel Element

1. Element type _____
(rod, plate, etc.)
2. Total length _____ (in.)
3. Active length _____ (in.)
4. Cladding material _____
(Zr, s.s., etc.)

Assembly Description

1. Number of Elements _____
2. Overall dimensions
_____ / _____ (in.)
length cross section
3. Overall weight _____

III. Describe any distortions, cladding damage or other damage to the spent fuel, or nonfuel components within this Shipping Lot which will require special handling procedures. (Attach additional pages if needed.)

APPENDIX F

IV. Assembly Number _____

Shipping Lot # _____

IRRADIATION HISTORY

CYCLE NUMBER

	1	2	3	4	5
1. Startup date (mo/day/yr)	_____	_____	_____	_____	_____
2. Shutdown date (mo/day/yr)	_____	_____	_____	_____	_____
3. Cumulative fuel exposure (mwd/mtu)	_____	_____	_____	_____	_____
4. Avg. reactor power (mwth)	_____	_____	_____	_____	_____
5. Total heat output/assembly in watts, using an approved calculational method: _____ as of _____					
					Date

Any false, fictitious or fraudulent statement may be punishable by fine or imprisonment (U.S. Code, Title 18, Section 1001).

By Purchaser:

Signature

Title

Date

APPENDIX G

Standard Remittance of Advice (RA) for Payment of Fees

Assigned Three-Month

Period Covered:

from _____ to _____

1. A. Purchaser (Utility name and address)

B. Contract Number _____

II. Payment for Spent Nuclear Fuel \$ _____

A. Financial Obligation as of April 7, 1983 _____

B. Financial Obligation as of Date of First/Single Payment _____

C. Date of First/Single Payment _____

D. Unpaid Balance to Date _____

E. Date of This Payment _____

F. Ten Year Treasury Note Rate _____

III. Payment for M/KWH Fee \$ _____

A. Total Nuclear KWH Generated During Assigned
Three Month Period Covered _____

B. Date of This Payment _____

C. M/KWH Fee Schedule Rate _____

IV. Underpayment (as notified by DOE) _____

A. Date of Notification _____

B. DOE Invoice Number _____

C. Interest Paid _____

V. Late Payments (as notified by DOE) _____

A. Date of Notification _____

B. DOE Invoice Number _____

C. Interest Paid _____

VI. Other Credits Claimed (Explain _____

\$ ()

VII. Total Remittance _____

\$ _____

Prepared by: _____

Title: _____

Phone Number: _____

Date: _____

Any false, fictitious or fraudulent statement may be punishable by fine or imprisonment (U.S. Code, Title 18, Section 1001.)

By Purchaser: _____

Signature

Title

Date

FOR DOE USE ONLY BELOW THIS LINE

1. Deposit to Account 89-5227 _____

2. Receipt of Payment Verification _____

a. Date Payment Received _____

b. Verification Performed by _____

3. Posted to Cumulative Remitter Ledger:

a. Date Posted _____

b. Posted by _____

4. Late Payments:

a. Calculation of late charge (attach schedule) _____

b. Billing date _____

5. After processing RA furnish copy to OCRWM

INSTRUCTIONS FOR COMPLETING DOE REMITTANCE ADVICE

Upon completion, this form must be mailed on the last workday of the month following each assigned three-month period.

SECTION I:

Name & Address (self explanatory)

Contract Number will be the identification number assigned by DOE upon execution.

SECTION II:

Based upon permanently discharged inventory of spent fuel and HLW amassed prior to April 7, 1983, and that portion of the in-core fuel burned through April 6, 1983. Under either payment option 1 or 2, interest will accrue and be compounded at 13-week Treasury bill rates until the first/single payment is made. If the 10 year option is selected, purchaser's financial obligation will be paid in level payment of principal and interest over the first payment. Payments will be made in quarterly installments concurrently with the normal three month assigned period. If option 2 is selected, purchaser will liquidate its total financial obligation, consisting of the fee plus accrued interest, in the form of a single payment. If option 3 is selected, no interest will accrue and lines A and E only must be filled out. This section of the Remittance Advice should be completed for each payment under the 10 year option and only once with either single payment option. (See Annex B, to be completed only once.)

- a. Self explanatory
- b. Fee obligation plus accrued interest
- c. Self explanatory
- d. Self explanatory
- f. Ten year Treasury Note rate in effect at first/single payment
- \$ Amount paid

SECTION III:

Based upon electricity generated on or after April 7, 1983, a schedule should be attached specifying the gross power generated by each plant during the assigned three-month period as measured at the output terminals of the turbine generator. (See Annex A, to be completed with each submission of the remittance advice.)

- a. Total of power generation from attached schedules
- b. Self explanatory
- c. Fee schedule rate in effect at time of payment

SECTIONS IV & V:

(Same instructions as above) DOE will invoice purchasers when underpayments or late payments occur, reference a particular payment, and state the reason for the invoice.

- A. The date the purchaser received DOE invoice
- B. DOE's invoice #
- C. Interest paid
- \$. Consists of interest if late payment or fees plus interest if under payment

SECTION VI:

Explain on an attached sheet of paper, if necessary, why DOE has been overpaid and the proposed disposition of the payment, e.g., apply credit against this payment or send refund.

- \$ If applied against this payment, this number is negative. If refund desired, leave blank and pay gross amount due from Sections II through V.

SECTION VII:

The sum of Sections II through VI.

APPENDIX "G" (Continued)

Instruction Guide for Remittance of
Nuclear Waste Disposal Fees to
Department of Energy Via Wire Transfer

Payments made to the Department of Energy (DOE) for Nuclear Waste Disposal Fees will be affected by the Purchaser's commercial bank via the Federal Reserve Communications System (also known as Fedwire) to the Department of Treasury. If the Purchaser's commercial bank is not a Federal Reserve member, then the Purchaser's bank will use a correspondent member bank to effect the transfer of funds.

Purchaser must provide specific information to its bank so that the transfer of funds can take place. Failure to correctly provide the information could result in delay crediting of the remittance to DOE and could subject the purchaser to late charges.

A wire transfer of funds message with descriptions of specific date elements is provided in Enclosure A. Enclosure B contains instructions and a sample form of a transfer of funds that shows the specific information to be supplied by the Purchaser when requesting its commercial bank to initiate a transfer of funds.

Enclosure C shows a transfer of funds message form that may be photocopied and used each time a transfer of funds must be made. Constant information has been preprinted on the form. Only that information applicable to that particular monthly remittance (i.e., amount, date, company name) must be filled in prior to submitting the form to your bank.

If additional information is required, contact DOE representatives Mark Loop or Joe Startari on (301) 353-4899 or 353-5857).

Guide for Funds Transfer
Messages to Treasury

The following instructions provide specific information which is required so that a funds (wire) transfer message can be transmitted to the Department of the Treasury. The funds transfer message format is shown in Exhibit 1. A narrative description of each item on the funds transfer message follows:

Line 1

Item 1 - Priority Code - The priority code will be provided by the sending bank. (Note: Some Federal Reserve district banks may not require this item.)

Line 2

Item 2 - Treasury Department Code - The nine-digit identifier "021030004" is the routing symbol of the Treasury. This item is a constant and is required for all funds transfer messages sent to Treasury.

Item 3 - Type Code - The type code, 10, identifies funds transfer messages. This item is a constant and is required for all funds transfer messages sent to Treasury.

Line 3

Item 4 - Sending Bank Code - This nine-digit identifier will be provided by the sending bank.

Item 5 - Class - The class field may be used at the option of the sending bank. (Note: Some Federal Reserve Districts prohibit use of this class/field.)

Item 6 - Reference Number - The reference number will be inserted by the sending bank to identify the transaction.

Item 7 - Amount - The amount must include the dollar sign and the appropriate punctuation including cents digits.

This item will be provided by the Purchaser.

Line 4

Item 8 - Sending Bank Name - The telegraphic abbreviation which corresponds to item 4 will be provided by the sending bank.

Line 5

Item 9 - Treasury Department Name - This item is of critical importance. It must appear on the funds transfer message in the precise manner as stated to allow for the automated processing and classification of the funds transfer message to Treasury for credit to the Department of Energy. This item is comprised of a rigidly formatted, nonvariable sequence of 28 characters as follows:

TREAS NYC/(89000003) DOE NWF

EXHIBIT 1

1	TO	021030004	TYPE	10	2
3	FROM	021000021	REV	3004	AMOUNT
4					\$1,305,500.00
5	ORDERING BANK AND RELATED DATA				
6	CHASE NYC				
7	TREAS NYC/(290000003) DOE-NWF				
8	DOE- NUCLEAR WASTE FEE				
9	MAY 80/ABC PURCHASER				
10					
11					
12					

Line 6, 7, and 8

Payment Identification - The payment identification should be furnished by the remitter in the following manner:

Item 10 - The constant "DOE NUCWASTE FEE" will be inserted.

Item 11 - The month and year the fees were incurred (i.e.; May 80), followed by a slash (/).

Item 12 - The company name is inserted following the slash.

TRANSFER OF FUNDS MESSAGE FORM
(COMPLETED SAMPLE)

ENCLOSURE B

TO		TYPE		AMOUNT	
021030004		70			
FROM		DATE		AMOUNT	
				\$1,305,500.00	
ORDERING BANK AND RELATED DATA					
TREAS NYC/(890000003) DOE- NWF					
DOE NUCLEAR WASTE FEE					
MAY 80/ABC PURCHASER					

The above example is a completed transfer of funds message form detailing those items (A thru C) filled in by the remitting company.

Item	DESCRIPTION
A	Amount-must be properly punctuated to include cents digits.
B	Date - month and year followed by a slash(/)
C	Company Name.

TRANSFER OF FUNDS MESSAGE FORM

ENCLOSURE C

TO		TYPE	
021030004		10	
FROM	REF	AMOUNT	
		\$	
BOLPING DATA AND RELATED DATA			
TREAS NYC/(89000003) DOE - MWF			
DOE			
/			

Annex A to Appendix G

STANDARD REMITTANCE OF ADVICE (RA) FOR PAYMENT OF FEES

This Annex should be completed to compute the MKWH fee for SNF burned on or after April 7, 1983.

I. Identification

A. Purchaser: _____

B. Period Covered

<u>Last report</u>	<u>This report</u>	<u>Next report</u>
------------------------	------------------------	------------------------

1. date submitted: _____
2. period covered: Start date: _____
Finish date: _____
3. length of period covered (days): _____

C. Unit identification (Only one unit may be covered in each report.)

1. Reactor/Facility Name: _____
2. Location: _____
3. Type: _____
4. Capacity: _____
5. Date of Commencement of Operations: _____
6. NRC License No.: _____

II. Fee Calculation

	<u>Prior Period</u>	<u>This Period</u>
1. Gross Thermal Energy produced (MWH)	_____	_____
2. Gross Electrical Energy produced (MWH)	_____	_____
3. Gross Thermal Energy not used to generate electrical output (MWH)	_____	_____
4. Gross electrical equivalent of thermal electricity (MWH)	_____	_____
5. Net electrical energy produced (MWH)	_____	_____
6. Electricity consumed/lost on site (MWH)	_____	_____
7. Current fee rate: _____ mill/kwh		
8. Current fee due: _____		_____ \$

Prepared by: _____
 Phone number: _____
 Date: _____

Annex B to Appendix G

STANDARD REMITTANCE OF ADVICE (RA) FOR PAYMENT OF FEES

This Annex should be completed only for SNF burned before midnight between April 6/7, 1983.

I. Identification

A. Purchaser: _____

B. Unit identification (Only one unit may be covered in each report.)

1. Reactor/Facility Name: _____
2. Location: _____
3. Type: _____
4. Capacity: _____
5. Date of Commencement of Operations: _____
6. NRC License No.: _____

II. Fee Calculation

A. Discharged nuclear fuel

1. burnup ¹ (MWDt/MTU)	0- 5000	5000- 10000	10000 20000	20000 up
2. initial loading (KgU) (with indicated burnup)	_____	_____	_____	_____
3. fee rate (\$/KgU)	80.00	142.00	162.00	184.00 .
4. fee (\$)	_____	_____	_____	_____
5. total fee (4)	_____	_____	_____	_____

B. Nuclear fuel in the reactor core as of midnight of
6/7 April 1983

Assembly Identification	Initial loading (KgU)	burnup ¹ as of midnight 6/7 April 1983 (MWDT/MTU)	fee
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			

C. Total fee

¹Please provide (as an attachment) a clear reference to the methodology used to derive the burnup figures (computer codes, etc.) and a clear reference to all data used in the derivation of those figures.