

OFFICIAL RECORD COPY MATERIALS LICENSE

Amendment No. 5

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 39, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

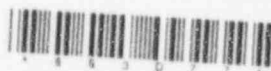
Licensee		In accordance with letter dated April 2, 1997	
1. Nuclear Fuel Services, Inc. (Formerly Advanced Recovery Systems, Inc.)		3. License number	41-25193-01
2. P.O. Box 337, MS 123 Erwin, Tennessee 37650		is amended in its entirety to read as follows:	
		4. Expiration date	April 30, 2002 (Extended)
		5. Docket or Reference No	030-32684
6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license	
A. Any byproduct material with atomic numbers 1 through 92	A. Any	A. 500 curies total, with no single isotope to exceed 100 curies	
B. Any source material	B. Any	B. 5000 kilograms total	
C. Any byproduct material with atomic numbers 93 and above	C. Any	C. 10 curies total	
D. Any special nuclear material	D. Any	D. 350 grams uranium 235, or 200 grams plutonium, or any combination of these provided the sum of the ratios of the quantities does not exceed unity	

9. Authorized Use:

A., B., C., and D.

For receipt, storage, use, and/or possession incident to any activity as follows:

- (1) Site characterization;
- (2) Environmental remediation;
- (3) Decontamination of facilities, equipment and containers;
- (4) Treatment of soil, water, or other wastes, by solidification, chemical treatment, resource recovery, or other similar operations;
- (5) Packaging for transport and;
- (6) Transport, in packages or containers approved for use under the provisions of 10 CFR 71, for transfer to licensees authorized to receive the material, in accordance with the terms and conditions of licenses issued by NRC or Agreement States.

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number 41-25193-01

Docket or Reference Number 030-32684

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CONDITIONS

- 10.A. Licensed material shall be used only at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
- B. At least 3 days before initiating activities at a temporary job site, the licensee shall notify, in writing, the Regional Administrator, NRC Region II, ATTN: Chief, Nuclear Materials Licensing/Inspection Branch, Atlanta, GA 30303. The notification shall include:
- (1) Estimated type, quantity, and physical/chemical form(s) of licensed material to be used;
 - (2) The specific site location,
 - (3) A description of planned activities including waste management and disposition,
 - (4) The estimated start date and completion date for the job, and
 - (5) The name and title of a point of contact for the job, including information on how to contact the individual.
- C. Except for licensee owned calibration sources and reference standards authorized by this license, the possession of licensed material at a temporary job site shall be limited to radioactive material originating at each site. This material must either be transferred to a licensed recipient, or the material must remain at the site after activities authorized by this license are completed. This does not prohibit the transfer of environmental samples for analysis or contaminated equipment for decontamination to authorized recipients.
11. The Radiation Safety Officer (RSO) for this license is Andrew M. Maxin or, in his absence, persons meeting the training and experience criteria set forth in letter dated March 18, 1994 (for example, David G. Culberson, alternate RSO or John W. Nagy, alternate RSO).
12. Licensed material shall be used by, or under the supervision of individuals designated by the licensee's Radiation Safety Committee (Safety/ALARA Review Committee) and the licensee's Radiation Safety Officer. The licensee shall maintain records of individuals designated and their qualifications to supervise and/or use licensed materials.
13. This license does not authorize the import of packages containing byproduct material wastes.
14. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
15. This license does not authorize Nuclear Fuel Services, Inc. [the licensee] (Formerly Advanced Recovery Systems, Inc.) to perform uses of licensed material which are specifically authorized on their customer's NRC or Agreement State license. If a customer holds an NRC or an Agreement State license, the notification required by License Condition No. 10.B shall include a written agreement between the licensee and the customer specifying which licensee activities shall be performed under the customer's license and supervision, and which licensee activity shall be performed under the licensee's supervision pursuant to this license.

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CONDITIONS

Continued

16. In an emergency, the licensee may temporarily deviate from the terms and conditions of this license and take reasonable action which is immediately needed to protect public health and safety. These emergency actions shall be taken only after approval of the Radiation Safety Officer (RSO) identified in Condition No. 11 of this license and only after the RSO has determined that no other action, which is consistent with all license conditions and which can provide adequate or equivalent protection, is immediately apparent. The licensee shall notify the NRC before, if practicable, and in any case, immediately after taking such emergency action using the reporting procedure specified in 10 CFR 30.50(c).
17. At the completion of activities at each job site location, the licensee shall notify NRC at the address specified in Condition No. 10.B concerning the temporary job site status and the disposition of the licensed material.
18. Pursuant to the provisions of 10 CFR 30.35(g), 40.36(f) and/or 70.25(g), the licensee shall maintain records of information important to safe and effective decommissioning at each temporary job site. At the completion of activities at a temporary job site, the licensee shall transfer these records to the customer for retention until the site is released for unrestricted use.
19. Pursuant to 10 CFR 30.11, 40.14, 70.14 and License Condition 10.C, the licensee is exempted from the requirements of 10 CFR 30.35, 40.36, and 70.25 to establish decommissioning financial assurance.
20. Notwithstanding the requirements of 10 CFR 30.32(i), 40.31(j), and 70.22(i), the licensee is not required to establish an emergency plan. Before taking possession of licensed material at a temporary job site in quantities requiring an emergency plan the licensee shall either:
- A. Obtain written NRC approval of its evaluation demonstrating that an emergency plan is not required by these regulations, or
 - B. Submit written confirmation to the Regional Administrator, RII, at the address specified in Condition 10.B, that licensee personnel have been trained and will follow the provisions of an existing emergency plan approved by NRC or an Agreement State for the temporary job site.
21. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
22. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.

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22.(cont.)

- E. Sealed sources need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region II, ATTN: Chief, Nuclear Materials Licensing/Inspection Branch. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- G. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
23. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
24. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated February 18, 1992
- B. Letters dated:
- (1) February 19, 1992
 - (2) February 25, 1993 (request for exemption from certain decommissioning financial assurance and emergency plan requirements)

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License Number 41-25193-01

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CONDITIONS

24.(cont.)

- (3) March 18, 1994 (Change RSO, and commitment to maintain radiation safety competence between jobs. This letter also replaces EcoTek letters dated January 7, 1994 and March 7, 1994.)
- (4) May 20 and June 13, 1994 (licensee's request for corporation name change from Ecotek, Inc. to Advanced Recovery Systems, Inc.)
- (5) May 20, 1994 (licensee's request for RSO name change)
- (6) August 16, 1994 (request for licensee name change)
- (7) May 17, 1995 [additional information for name change of licensee and RSO name change]
- (8) March 1, 1996 (NRC letter extends expiration date in accordance with 10 CFR 30.36)
- (9) April 2, 1997 (address change)

C. Radiation Safety Program dated April, 1992 (See also revisions to this document included as enclosure to EcoTek letter dated March 18, 1994)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DAVID J. COLLINS

By David J. Collins
Region II, Division of Nuclear Materials Safety
61 Forsyth Street, Suite 23T85
Atlanta, GA 30303

Date

JUN 05 1997

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BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

: (FOR LFMS USE)
: INFORMATION FROM LTS
: -----
: Program Code: 03234
: Status Code: 0
: Fee Category: 4B 3N
: Exp. Date: 20020430
: Fee Comments: _____
: Decom Fin Assur Req: N
:

1997 APR 21 PM 1:51

LICENSE FEE TRANSMITTAL

A. REGION II

1. APPLICATION ATTACHED

Applicant/Licensee: NUCLEAR FUEL SERVICES, INC.
Received Date: 9/04/07
Docket No: 3032684
Control No.: 257456
License No.: 41-25193-01
Action Type: Amendment

2. FEE ATTACHED

Amount: NONE
Check No.: _____

3. COMMENTS

Signed DIANE HEIM
Date 4/16/97

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /)

1. Fee Category and Amount: 4B 3N FEE NOT REQUIRED

2. Correct Fee Paid. Application may be processed for:
Amendment /
Renewal _____
License _____

3. OTHER _____

Signed Kia Messier
Date 4/21/97

RECEIVED BY LTS	
Date	<u>4/21/97</u>
Log	<u>Apr 4 II</u>
By	<u>Kern</u>
Date Completed	<u>4/21/97</u>



April 2, 1997

Nuclear Fuel Services, Inc.

1205 Banner Hill Rd.

Erwin, TN 37650

(423) 743-9141

Dwight B. Ferguson, Jr.

President

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, GA 30323

Attention: Mr. Wade Loo

Dear Mr Loo:

To assure regulatory agency correspondence receives top management priority, NFS requests all correspondence from your agency be directed to the attention of T. S. Baer, PhD, Vice President, Safety and Regulatory. Official mailing addresses for all NFS correspondence are:

UNCLASSIFIED CORRESPONDENCE:

Nuclear Fuel Services, Inc.

P. O. Box 337, MS 123

Erwin, TN 37650

CLASSIFIED CORRESPONDENCE:

Outer Envelope

Nuclear Fuel Services, Inc.

P. O. Box 337, MS 123

Erwin, TN 37650

INLET ENVELOPE

T. S. Baer, PhD

Nuclear Fuel Services, Inc.

P. O. Box 337, MS 123

Erwin, TN 37650

Your usual cooperation is appreciated in NFS' effort to provide top management attention to all agency correspondence.

Sincerely,

NUCLEAR FUEL SERVICES, INC.

Dwight B. Ferguson

Dwight B. Ferguson

President and Chief Operating Officer

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