

MATERIALS LICENSE

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, 36, 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.

OFFICIAL RECORD COPY

Licensee		3. License Number
1. FERCO MacNeil Generating Station		44-30355-01
2. 111 Intervale Road Burlington, Vermont 05401		4. Expiration Date
		February 28, 2007
		5. Docket or Reference No.
		030-34304
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. Cesium 137	A. Sealed sources (Ohmart Model Numbers A-2102 and A-2104)	A. Not to exceed 1500 millicuries per source and 3000 millicuries total
9. Authorized use		
A. In Ohmart Model SHLG-1 source holders.		

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at 111 Intervale Road, Burlington, Vermont.
11. The licensee may not possess and use materials authorized in Items 6, 7, and 8, until: (1) the licensee has constructed the facilities and obtained the equipment described in the application and supporting documentation; and (2) the U.S. Nuclear Regulatory Commission, Region I, ATIN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 has been notified in writing that activities authorized by the license will be initiated.

In accordance with the requirements set forth in 10 CFR 30.36(b), 40.42(b), and 70.38(b), the licensee shall promptly notify the Nuclear Regulatory Commission, in writing, of a decision not to complete the facility, acquire equipment, or possess and use authorized material.

12. Licensed material shall be used by, or under the supervision of, Stuart J. Hand or Gary Charland.
13. The Radiation Safety Officer for this license is Stuart J. Hand.

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

44-30355-01

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14. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- 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 three 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.
- E. Sealed sources and detector cells 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 transfer 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 test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. 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 or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken.
- G. The licensee is authorized to collect leak test samples for analysis by Ohmart Corporation. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

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15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
17. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
18. Each gauge shall be tested for the proper operation of the on-off mechanism and indicator, if any, at no longer than six-month intervals or at such longer intervals as specified by the manufacturer and approved by the Commission or an Agreement State in a registration certificate referred to in 10 CFR 32.210.
19. Installation, initial radiation survey, relocation, or removal from service of devices containing sealed sources shall be performed by Stuart J. Hand or by persons specifically licensed by the Commission or an Agreement State to perform such services. Maintenance and repair of such devices and installation, replacement, and disposal of sealed sources shall be performed only by persons specifically licensed by the Commission or an Agreement State to perform such services.
20. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above, and below the device with the shutter open. This survey shall be performed only by persons authorized to perform such services by the Commission or an Agreement State.
21. The licensee shall operate each device containing licensed material within the manufacturer's specified temperature and environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
22. The licensee shall assure that the shutter mechanism of each device is locked in the closed position during periods when a portion of an individual's body may be subject to the direct radiation beam. The licensee shall review and modify as appropriate its "lock-out" procedures whenever a new device is obtained to incorporate the device manufacturer's recommendations.
23. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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License Number 44-30355-01

Docket or Reference Number 030-34304

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 November 20, 1996
- B. Letter dated February 13, 1997



For the U.S. Nuclear Regulatory Commission

Date FEB 24 1997

Original Signed By:

By John R. McGrath
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

FEB 24 1997

License No. 44-30355-01
Docket No. 030-34304
Control No. 123969

Mr. Stuart J. Hand
Construction Manager
FERCO
MacNeil Generating Station
111 Intervale Road
Burlington, Vermont 05401

Dear Mr. Hand:

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Until your license is terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Not possess and use materials authorized in Items 6, 7, and 8, on the license until:
 - a. you have constructed the facilities and obtained the equipment described in the license application and supporting documentation; and
 - b. you have notified the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406 in writing, that activities authorized by the license will be initiated.

3. Notify NRC, in writing, within 30 days:
 - a. when an authorized user or Radiation Safety Officer, permanently discontinues performance of duties under the license or has a name change; or
 - b. when the mailing address on the license changes (no fee is required if the location of byproduct material remains the same).
4. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
 - a. when you decide to terminate all activities involving materials authorized under the license; or
 - b. if you decide not to complete the facility, acquire equipment, or possess and use authorized material.
5. Request and obtain a license amendment before you:
 - a. permit anyone to work as an authorized user under the license;
 - b. change Radiation Safety Officer;
 - c. order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - d. add or change the areas of use, or address or addresses of use identified in the license application or on the license; or
 - e. change ownership of your organization.
6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or a certifying official of the licensee rather than the Radiation Safety Officer or a consultant.

Mr. Stuart J. Hand
FERCO

-3-

You will be periodically inspected by the NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), NUREG 1600.

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Thank you for your cooperation.

Sincerely,

Original Signed By:

John R. McGrath
Senior Health Physicist
Division of Nuclear Materials Safety

License No. 44-30355-01
Docket No. 030-34304
Control No. 123969

Enclosures:

1. License No. 44-30355-01
2. 10 CFR Parts 2, 19, 20, 30 and 170
3. NRC Form 3 and 313

DOCUMENT NAME: R:\WPS\MLTR\L4430355.01

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	<input checked="" type="checkbox"/> N	DNMS/RI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NAME	McGrath <i>JRM</i>						
DATE	02/19/97	02/ /97	02/ /97	02/ /97	02/ /97		

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Future
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February 13, 1997

Docket N° 030-34304
Control N° 123969

John R. McGrath
Division of Nuclear Materials Safety
Nuclear Regulatory Commission Region 1.
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. McGrath:

With reference to your letter dated 7 January 1997 requesting additional information regarding my request for a Nuclear Regulatory Commission License.

Accordingly I offer the following for your consideration and review.

1. Model identification

The application incorrectly identified the "Ohmart" Model source holders.
The correct model numbers are; Cesium sealed source, Ohmart A-21021 and
Ohmart A-2104.

2. Attendance to the Ohmart training program of Mr. Hand.

I have attended the said training program during the period 3 February-7 February 1997. The course taking some 40 hours plus was successfully completed. Copy of the certificate as issued by Ohmart is attached which describes the subject matter covered.

3. Training and instruction of others at the time of installation.

At the time of installation and initial commissioning those persons who will operate the said devices will receive suitable training and instruction. It is planned to have a representative of Ohmart to conduct the training and instruction.

4. Clarify installation and operating conditions of the devices.

The environment for the gauge is indoors having an atmospheric temperature range of 40°F to 104°F. No corrosion or vibratory conditions are anticipated. The gauges are shielded and protected from the vessel which is at 350°F by both an air gap and thermal insulation ensuring that the gauge shall not experience an operating temperature in excess of 240°F which is the rated continuous maximum.

950 E. Paces Ferry Rd., N.E. • Suite 810 • Atlanta, GA 30326 • (404) 842-9355 • Fax (404) 814-0549

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5. Clarify procedures regarding leak testing of sealed sources, options are:
- Engage the services of a consultant or commercial facility for the complete services.
 - Use a commercial leak test. You take the smears and send them to the kit supplier, who reports the results to you.
 - Perform the entire leak-test-sequence yourself.

The options which will be undertaken are "a" and "b." In either option the actual samples will be collected by the appointed consultant (or commercial) and by ourselves. These samples will then be sent to a suitable licensed organization for subsequent measurement giving a report of the results.

6. Confirm that lock-out procedures will be prepared, provided to all personnel and posted. Administrative procedures should be established to insure that when the vessels are not in use that the source are returned to the shielded position and secured until the vessels are again filled and radiation levels in accessible areas are acceptable.

Lock-out procedures will be prepared, provided to personnel and posted. The administrative safety procedures will include returning the shield to the lock-out position being secured ensuring that the vessel and local accessible areas have radiation levels not exceeding acceptable levels.

This lock out procedure shall also account for the event that access is needed inside the vessels.

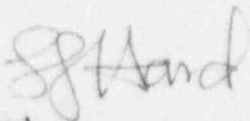
7. Regarding waste management, confirm that disposal will be by transfer to licensee authorized to possess the material

If the device and its source are to be disposed of then the device will be transferred to a licensed authorized identity for ultimate disposal.

In the event that the device and its source can be utilized by others for example the Ohmart company then the device shall be transferred to such an licensed identity.

In conclusion I trust that the above meets with your requirements. However, if you require any further information please do not hesitate to contact the undersigned.

Sincerely,



Stuart J. Hand
Tel 802-365-7486

OHMART VEGA

Stuart Hand


Future Energy Resource Company (FERCO) Burlington, Vermont

Has successfully completed the
Ohmart Radiation Safety Course

February 3 - February 7, 1997
Presented at Ohmart Corporation

Subject matter covered:

Basic atomic theory
Measurement and monitoring techniques
Exposure calculations
Biological effects of radiation
NRC regulations
Leak test, shutter check
Installation, relocation, and removal procedures
Hands on lab work
Proper disposal practices
Emergency procedures



George W. Brown
Training Manager

Certificate Issued February 7, 1997

OHMART Corporation

Technical Training Schools, Cincinnati, Ohio 45209

JAN - 7 1997

Docket No. 030-34304
Control No. 123969

Stewart J. Hand
Construction Manager
FERCO
111 Intervale Road
Burlington, VT 05401

Dear Mr. Hand:

This is in reference to your application dated November 20, 1996 requesting a Nuclear Regulatory Commission License. In order to continue our review, we need the following additional information:

1. Your application is for an Ohmart Model SHLG-1 source holder to measure level of process material. The Cesium-137 sealed source model numbers indicated in your application were Ohmart A-20121 and A-2104. We have no information on the A-20121 source. Please clarify.
2. In your application, you state that Mr. Hand intends to attend the Ohmart training program in December 1996. Please provide 1) confirmation that this course was completed and 2) specifics concerning course content. Since you wish to be licensed to perform certain activities such as device relocation, the "responsible individual(s)" who perform the operation should have completed a training course of approximately 40 hours in the following topics:
 - a) The principles and fundamentals of radiation protection and good safety practices related to the use of radioactive materials.
 - b) Radioactivity measurements, use of radiation detection instruments, and monitoring techniques.
 - c) Biological effects of radiation.
 - d) Procedures for performing services.
 - e) Actual practice in performing the services.
3. Please provide a commitment that other employees who will operate your device will attend the training and instruction given at the time of installation.

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4. Provide a sketch/description of the proposed location of the gauge in your facility and a more complete statement regarding the environmental conditions in which the gauge will operate. Please note that the SHLG-1 gauge has not been qualified to unusual vibrations or corrosive conditions. Also, note that the SHLG-1 has been found to withstand a continuous operating temperature of up to 240°F. In your application, you state that the vessel skin temperature is 350°F. Please clarify.
5. Please clarify your procedures regarding leak testing of sealed sources. The options for leak testing are:
 - a. Engage the services of a consultant or commercial facility to take samples, evaluate the samples, and report the results to you.
 - b. Use a commercial leak-test kit. You take the smears and send them to the kit supplier, who reports the results to you.
 - c. Perform the entire leak-test sequence yourself, including taking the smears and their measurement.
6. Please confirm that lock-out procedures will be prepared, provided to personnel, and posted. Administrative procedures should be established to insure that when vessels are not in use, that the source is returned to the shielded position and secured until the vessel is again filled and radiation levels in accessible areas are acceptable.
7. With regard to waste management, confirm that disposal will be by transfer to the manufacturer or another licensee authorized to possess the material.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I Office and refer to Mail Control No. 123969. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5069.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we shall assume that you do not wish to pursue your application.

Sincerely,

Original Signed By:
John R. McGrath

John R. McGrath
Senior Health Physicist
Division of Nuclear Materials Safety

S. J. Hand
FERCO

-3-

Docket No. 030-34304
Control No. 123969

Enclosure:
Draft Regulatory Guide FC-404-4

DOCUMENT NAME: R:\WPS\DLTR\FERCO

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

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NAME	McGrath <i>JAM</i>						
DATE	01/06/97	01/ /97	01/ /97	01/ /97	01/ /97	01/ /97	01/ /97

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Future
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03120

November 25, 1996

U.S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406-1415

To whom it may concern:

Enclosed please find two copies of my Application for Material License as well as a check for \$550 made out to 'U.S. Nuclear Regulatory Commission'. If there are any problems or questions, please feel free to give me a call at (802) 865-7485. If I can't be reached, please contact Sim Weeks at our home office (404) 842-9355. Thank you for your time and assistance.

Sincerely,

Stewart : Hand

SJH/stw

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APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY, NMIS
WASHINGTON, DC 20546

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS. IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND,
MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA,
RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION 2
475 ALLIANCE ROAD
KING OF PRUSSIA, PA 19380

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA,
PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR
WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCLEAR MATERIALS SAFETY SECTION
301 MARKET STREET, SUITE 300
ATLANTA, GA 30333

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR
WISCONSIN, SEND APPLICATIONS TO:

U.S. Nuclear Regulatory Commission, Region III
301 Harrenville Road
Lisle, IL 60532-4351

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA,
NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH
OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
811 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON
AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS
TO:

Send applications to Region IV

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL OR BE SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

1. THIS IS AN APPLICATION FOR (Check appropriate item):

- ☒ A. NEW LICENSE
☐ B. AMENDMENT TO LICENSE NUMBER _____
☐ C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)

Stuart J. Hand
FERCO (McNeil Generating Station)
111 Intervale Rd.
Burlington, VT 05401

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED (OR POSSESSED)

McNeil Generating Station (Gasification Plant)
111 Intervale Rd., Burlington VT 05401

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Stuart John Hand

TELEPHONE NUMBER

802-865-7486

SUBMIT ITEMS 5 THROUGH 11 ON ENCL. 11. PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

9. FACILITIES AND EQUIPMENT

10. RADIATION SAFETY PROGRAM

11. WASTE MANAGEMENT

12. LICENSE FEE (See 10 CFR 170 and Section 170.11)

FEE CATEGORY

AMOUNT
ENCLOSED \$ \$550.00

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 3, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 36, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 52 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

SIGNATURE - CERTIFYING OFFICER

TYPED/PRINTED NAME

TITLE

DATE

Stuart J. Hand

Stuart J. Hand

Construction Manager

20 NOV 96

FOR NRC USE ONLY

TYPE OF FEE FEE LOG FEE CATEGORY COMMENTS

AMOUNT RECEIVED

CHECK NUMBER

APPROVED BY

DATE

5. Radioactive Material

L i n e N O	Element and Mass Number A	Chemical and/or Physical Form B	Name of Manufacturer and Model Number (if sealed source) C	Maximum Number of Millicuries and/or sealed sources and Maximum activity per source which will be possessed at any one time D
1	CS-137	Sealed Source	OHMART A-20121	1-1200mci
2			A-2104	1-1500mci
3				(no single source to exceed 2400mci)

6. Purpose(s) for which licensed material will be used

In OHMART devices which have been evaluated and approved for licensing purposes and authorized for distribution under authority of OHMART's NRC License #34-00639-01 or OHMART's Kentucky License #201-487-95. To be used in OHMART SHLG-1 source holder to measure level of process material.

The equipment is to be located indoors and installed on a biomass gasifier vessel to measure sand level. The atmospheric indoor temperature is between 40°F and 104° with a vessel skin temperature of 350°F. Subsequent routine inspection shall be conducted to maintain the equipment and derive all necessary and appropriate actions to ensure the integrity of the equipment.

7. Individual(s) responsible for Radiation Safety Program and their training and experience. "This equipment will be used by, or under the direction of Mr. Stuart J. Hand." Also, Mr. Gary Charland will be a designated alternative. Mr. Stuart Hand intends to attend the OHMART training program in December 1996, Mr. Charland shall also attend an OHMART training program. Resume(s) attached.

8. Training for individuals working in or frequenting restricted areas.

The plant in general is not a restricted area. However under the direction of the Radiation Safety Officer (Stuart J. Hand) or his designated alternative access to the Radioactive and Licensed Material and the associated vessels will be controlled maintaining the safety program. No access to the equipment nor the vessel will be allowed unless sanctioned by the Safety Officer will be allowed or his designee. All persons concerned with the construction, plant operations and maintenance shall be suitably qualified people having undergone necessary training. Training as necessary will include lockout procedures and vessel access ensuring safety.

9. Facilities and Equipment

It is intended to have the equipment supplier (OHMART) commission the equipment and perform the initial tests. Subsequent tests being conducted by the Safety Officer or his designee as most practical. Thus the request for the authority to carry-out these procedures.

10. Radiation Safety Program

The mounting in place of the equipment will be by suitable persons under the direction of the Safety Officer or his designee. The equipment supplier (OHMART) may also attend the installation, accordingly the source holder stays locked.

The initial commissioning of the equipment for example, the initial wipe tests and surveys and opening the shutters will be carried out by the equipment supplier, OHMART.

Subsequent equipment surveys, leak tests and shutter tests will be carried out on a regularly scheduled basis of at least every six (6) months. These functions shall be undertaken by the Safety Officer or his designee and/or the equipment supplier (OHMART) as most practical. Records shall be maintained for ready reference and access..

In the event the source holders for example are to be relocated from one place to another but remaining on site this will be undertaken under the direction of the Safety Officer or his designee. In the unavoidable event that this direction is not available then the equipment supplier (OHMART) will be notified for assistance.

Any subsequent repair will be instigated by the Safety Officer or his Designee as most practical with OHMART's assistance as necessary.

Concerning the event of equipment decommissioning and disposal a qualified licensed identity will be requested to carry out this work. Again the initial equipment supplier will be included in this request for assistance.

Regarding occupancy evaluation, access plans and emergency planning, it is the intent to prepare the necessary procedures for reference and adoption. Accordingly, the equipment supplier (OHMART) shall be consulted.

11. Waste Management

Whenever the source/source holder is no longer needed it will be removed and stored in a locked cupboard or room properly labeled. Accordingly, it will not be replaced in service without prior leak testing and inspection.

If the source/source holder is to be disposed of then a properly licensed person shall be contacted for assistance.

Stuart J. Hand
168 Shepard Road
Sturbridge, Massachusetts 01566
Tel. 508 347-9094

EXPERIENCE:

Future Energy Resources Corporation

950 East Paces Ferry RD. NE, Suite 810, Atlanta, GA 30326
July 1996-Present

Construction Manager

Primary duties currently consist of construction oversight of the \$15 million dollar biomass gasification plant in Burlington, Vermont. Serves as owners representative as only full time company presence at the construction site.

Zurn/NEPCO

133 Pope Avenue, South Portland, Maine
1991-May 1996

Chief Mechanical Engineer

Management of the Mechanical Engineering and Design groups; lead and direct specific project duties ensuring clarity, completion and quality. Organize, schedule and budget. Engineer power plants and their equipment procurement from concept to final operation and testing. All fuel types, combined-cycle, cogeneration, and gasification.

Riley Energy Systems

Worcester, Massachusetts
1981-1991

Engineering Manager

Project and environmental engineering for numerous power plants and waste-to-energy projects from initial development through construction. Responsible for facility permits, performance and guarantee's. Project management and budget control, business support and negotiations, engineering design direction and approval. Customer liaison, public relations, etc.

Supervisor

Engineering and design of utility, including industrial steam, generating boilers. Product development, industrial and waste-to-energy systems and equipment. Budget control, sales support etc.

NEI-International Combustion Ltd.

Derby, United Kingdom
1967-1981

Senior Engineer/Project Manager

Engineering and design of steam generating systems, gas distribution, waste-to-energy plants, auxiliaries, environmental controls, ash and fuel handling, etc. Construction and commissioning engineer, planning and scheduling projects both home and overseas. Manufacturing responsibilities, budget and cost control etc.

Salem Engineering

Belper, United Kingdom

1976-1978

Supervisor

Executed engineering of steel process plant and equipment serving the steel and oil industry. Proprietize design of special equipment. Plant commissioning and testing. Team leader multiple discipline responsibilities.

EDUCATION

Mechanical Thermal Engineering Degree - Derby University, UK

Production Engineering Degree - Derby University, UK

Member of the ASME PTC46 Testing Committee.

Technical papers published and presented.

Gary Charland

RR 1 Box 385C
Jericho, VT 05465
Tel: (802) 899-4058

Objective: Opportunity to Utilize Technical and Supervisory Skills in an Industrial Engineering Corporation

Work Experience:

- BURLINGTON ELECTRIC DEPARTMENT**
- 11/92 - Present *Instrument Technician* - Responsible for the maintenance and repair of all process control devices at the McNeil Generating Station, including pressure/temperature transmitters, transducers, positioners, level indicators, controllers, digital and analog control systems, and many other control devices.
- 12/83 - 11/92 *Station Operator* - worked as an operator responsible for monitoring all operating equipment, local valving and general maintenance at the McNeil Generating Station.
- UNITED STATES NAVY**
- 7/79 - 7/83 *Boiler Technician* - Work center supervisor for the fire room aboard the USS Concord. Responsible for the repair and maintenance of three 600 PSI Babcock and Wilcox boilers and all related equipment.

Special Skills: *Confined Space Entry Certified* - one year course in metals, including arc welding, piping and general metal work.

Education:

- UNITED STATES NAVY SCHOOLS**
- 11/12 - 12/30/82 *Auxiliary Machinery Controls* - school involved automatic pressure regulators, constant speed governors, limiting speed and over speed governor trips.
- 9/14 - 9/31/82 *Pump Maintenance and Repair* - school involved rotary centrifical, reciprocating and jet pumps
- 9/5 - 9/11/82 *Turbine Maintenance and Repair* - school involved all auxiliary turbines, fuel oil service pumps, main feed pumps, turbine generators, and forced draft blower fans.
- 8/16 - 9/4/82 *Engineering Maintenance Administration and Practices* - School involved standard engineering procedures for steam generating plants.
- 6/21 - 28/80
2/7 - 14/83
5/30 - 7/14/80 *Coordinated Phosphate Boiler Water and Feedwater Testing and Treatment Boiler Technician Class A School* - school involved basic theory of boilers and all related machinery.
- 9/75 - 6/79 **MT MANSFIELD UNION HIGH SCHOOL, Jericho VT**
Graduated with B average (pro-merit throughout four years of school)

References: Available on request

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, AFM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03120

STATUS CODE: 3

FEE CATEGORY: -----

EXP. DATE: 0

FEE COMMENTS: -----

DECOM FIN ASSUR REQD: -----

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: FERCO(MCNEIL GENERATING STATION)

RECEIVED DATE: 961129

DOCKET NO: 3034304

CONTROL NO.: 123969

LICENSE NO.: -----

ACTION TYPE: NEW LICENSEE

2. FEE ATTACHED

AMOUNT: \$ 550.00

CHECK NO.: 696

3. COMMENTS

SIGNED
DATE

R. J. Brown
12/14/96

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE U3 IS ENTERED 1 ☒ 1)

1. FEE CATEGORY AND AMOUNT: 3P \$550

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT -----

RENEWAL -----

LICENSE ☒ -----

3. OTHER -----

SIGNED
DATE

SC
12/30/96

Log	Dec 13 I
Remitter	
Check No.	696
Amount	\$550
Fee Category	3P
Type of Fee	App
Date Check Rec'd	12/13/96
Date Completed	12/30/96
By	SC

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