

# The NUCLEAR EQUIPMENT SERVICE CENTER, INC.

109 Flint Road  
Oak Ridge, Tennessee 37830

July 14, 2000

NESC00-81

Via: Overnight Courier &  
Facsimile (404) 562-4955

United States Nuclear Regulatory Commission  
Materials Licensing / Inspection Branch 2  
Division of Nuclear Materials Safety  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, Georgia 30303

Attn: Mr. David J. Collins

Re: Request For Reciprocity Under 10 CFR Part 150.20 (State of Tennessee Radioactive  
Material License No. R-01068-B04)

Dear Mr. Collins:

The Nuclear Equipment Service Center, Inc., a wholly owned subsidiary of American Ecology Corporation, hereby requests license reciprocity for the State of Indiana. Attached, please find a completed NRC form 241, four copies of the subject State of Tennessee Radioactive Material License, and a check in the amount of \$1200.00.

The work to be performed in the State of Indiana includes the vacuum pressure impregnation of a motor stator and shall last approximately 1 week commencing on or about August 1, 2000. The work to be performed will be monitored by trained health physics technicians and is identical in scope to that performed by American Ecology Corporation at this location in 1997. At that time, no regulatory limits were exceeded, and no reportable events occurred. Additionally, no cross-contamination occurred during these activities.

During this project, the same controls used in 1997 to ensure that radiation exposure is minimized to negligible levels for the members of the general public who are involved in this process shall be utilized.

It is requested that this proposal be withheld from public disclosure in its entirety as Nuclear Equipment Service Center, Inc. proprietary information. Please contact me at (865) 220-5238 should you have any questions. Thank you for your time and consideration.

Sincerely,



Charles Coleman  
Radiation Safety Officer

JBS

Attachments

<b>NRC FORM 241</b> <small>(7-1999)</small>		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>		<b>APPROVED BY OMB: NO. 3150-0013</b> <b>EXPIRES: 07/31/2002</b> <small>Estimated burden per response to comply with this mandatory collection request: 15 minutes. This notification is required so that NRC may schedule inspection of the activities to ensure that they are conducted in accordance with requirements for protection of the public health and safety. Send comments regarding burden estimates to the Records Management Branch (3-A 20), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to bja1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEB-10202 (3150-0013), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</small>		
<b>REPORT OF PROPOSED ACTIVITIES IN NON-AGREEMENT STATES, AREAS OF EXCLUSIVE FEDERAL JURISDICTION, OR OFFSHORE WATERS</b> <i>(Please read the instructions before completing this form)</i>						
<b>1. NAME OF LICENSEE</b> <small>(Person or firm preparing to conduct the activities described below)</small> Nuclear Equipment Service Center, Inc.		<b>2. TYPE OF REPORT</b> <input checked="" type="checkbox"/> INITIAL <input type="checkbox"/> REVISION <input type="checkbox"/> CLARIFICATION				
<b>3. ADDRESS OF LICENSEE</b> <small>(Mailing address or other location where licensee may be located)</small> 109 Flint Road Oak Ridge, Tennessee 37830		<b>4. LICENSEE CONTACT AND TITLE</b> Mr. Charles Coleman, RSO.		<b>5. TELEPHONE NUMBER</b> <small>(Include Area Code)</small> (865) 220-5238		
				<b>6. FACSIMILE NUMBER</b> <small>(Include Area Code)</small> (865) 220-5365		
<b>7. ACTIVITIES TO BE CONDUCTED UNDER THE GENERAL LICENSE GIVEN IN 10 CFR 150.20</b>						
<input type="checkbox"/> WELL LOGGING <input type="checkbox"/> LEAK TESTING AND/OR CALIBRATIONS <input type="checkbox"/> TELE THERAPY/IRRADIATOR SERVICE <input type="checkbox"/> PORTABLE GAUGES <input checked="" type="checkbox"/> OTHER (Specify) → Motor stator vacuum pressure impregnation <input type="checkbox"/> RADIOGRAPHY      → REGISTERED AS USER OF PACKAGING (CERTIFICATES OF COMPLIANCE NUMBERS)						
<b>8. CLIENT NAME, ADDRESS, CITY, COUNTY, STATE, ZIP CODE</b> Virginia Power Company Surry Power Station 5570 Hog Island Road Surry, Virginia 23883			<b>9. ACTUAL PHYSICAL ADDRESS OF WORK LOCATION</b> <small>(Street and Number or other location. Give as complete an address or directions as possible.)</small> Mohler Technology 2355 Eby Road Booneville, Indiana 47601			
			<b>10. CLIENT TELEPHONE NUMBER</b> <small>(Include Area Code)</small> (757) 365-2512		<b>11. WORK LOCATION TELEPHONE NUMBER</b> <small>(Include Area Code)</small> (812) 751-5207	
<b>12. DATES SCHEDULED</b> FROM 7/20/2000 TO 8/7/2000		<b>13. NUMBER OF WORK DAYS</b> 9	<b>14. ADD</b>	<b>15. DELETE</b>	<b>16. LOCATION REFERENCE NUMBER</b> NUMBER TO BE ASSIGNED BY NRC 00/000	
<b>LIST ADDITIONAL WORK SITES ON SEPARATE SHEET(S) TO INCLUDE ALL INFORMATION CONTAINED IN ITEMS 9-16 ABOVE.</b>						
<b>17. LIST RADIOACTIVE MATERIAL, WHICH WILL BE POSSESSED, USED, INSTALLED, SERVICED, OR TESTED</b> <small>(Include description of type and quantity of radioactive material, sealed sources, or devices to be used.)</small> One motor stator containing an exempt quantity of radioactive material						
<b>18. AGREEMENT STATE SPECIFIC LICENSE WHICH AUTHORIZES THE UNDERSIGNED TO CONDUCT ACTIVITIES WHICH ARE THE SAME, EXCEPT FOR LOCATION OF USE, AS SPECIFIED IN ITEM 8 ABOVE.</b> <small>(Four copies of the specific license must accompany the INITIAL NRC Form 241.)</small>			<b>LICENSE NUMBER</b> R-0168-B04	<b>STATE</b> TN	<b>EXPIRATION DATE</b> 2/29/2004	
<b>19. CERTIFICATION (MUST BE COMPLETED BY APPLICANT)</b>						
<b>I, THE UNDERSIGNED, HEREBY CERTIFY THAT:</b>						
a. All information in this report is true and complete. b. I have read and understand the provision of the general license 10 CFR 150.20 reprinted on the instructions of this form; and I understand that I am required to comply with these provisions as to all byproduct, source, or special nuclear material which I possess and use in non-Agreement States or offshore waters under the general license for which this report is filed with the U.S. Nuclear Regulatory Commission. c. I understand that activities, including storage, conducted in non-Agreement States under general license 10 CFR 150.20 are limited to a total of 180 days in calendar year. With the exception of work conducted in off-shore waters, which is authorized for an unlimited period of time in the calendar year. d. I understand that I may be inspected by NRC at the above listed work site locations and at the Licensee home office address for activities performed in non-Agreement States or offshore waters. e. I understand that conduct of any activities not described above, including conduct of activities on dates or locations different from those described above or without NRC authorization, may subject me to enforcement action, including civil or criminal penalties.						
<b>CERTIFYING OFFICER - RSO or Management Representative (Name and Title)</b> Mr. Charles Coleman, RSO			<b>SIGNATURE</b> <i>Charles Coleman</i>		<b>DATE</b> 7-14-00	
<b>WARNING: False statements in this certificate may be subject to civil and/or criminal penalties. NRC regulations require that submissions to the NRC be complete and accurate in all material respects. 18 U.S.C. Section 1001 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.</b>						
<b>FOR NRC USE ONLY</b>	<b>REVIEWING OFFICIAL (Typed/Printed Name and Title)</b> David J. Collins, Health Physicist		<b>SIGNATURE</b> <i>David J. Collins</i>		<b>DATE</b> 7/14/2000	
					<b>TOTAL USAGE - DAYS TO DATE</b> 0	

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH



*See  
H/C 29  
Pg 10*

**RADIOACTIVE MATERIAL LICENSE**

**Amendment 35**

Pursuant to Tennessee Department of Environment and Conservation Regulations, 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 radioactive material listed below; and to use such radioactive material for the purposes and at the places designated below. This license is subject to all applicable rules and regulations of the Tennessee Department of Environment and Conservation and orders of the Division of Radiological Health, now or hereafter in effect and to any conditions specified below.

LICENSEE

1. Name <b>American Ecology Recycle Center, Inc., d/b/a US Ecology Nuclear Equipment Services Center</b>	3. License number <b>R-01068-B04</b> <b>amended in its entirety</b>
2. Address <b>120 Franklin Road Oak Ridge, TN 37830</b>	4. Expiration date <b>February 29, 2004</b>
5. File no. <b>R-01068</b>	

7. Radioactive Material (Element and Mass Number)  <b>See</b>	8. Chemical and/or physical form  <b>Supplementary</b>	9. Maximum Radioactivity and/or quantity of material which licensee may possess at any one time.  <b>Sheets</b>
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10. Authorized Use  <b>See                      Supplementary                      Sheets</b>
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CONDITIONS

11. Unless otherwise specified, the authorized place of use is the licensee's address stated in item 2. above.  <b>See                      Supplementary                      Sheets</b>
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For the Commissioner  
Tennessee Department of Environment and Conservation

Date of Issuance **February 5, 1999**  
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By: *Charles Amott*  
DIVISION OF RADIOLOGICAL HEALTH  
**Charles Amott**  
Health Physicist

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(9-92)

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6. Radioactive Material (Element and Mass Number)	8. Chemical and/or Physical Form	9. Maximum Radioactivity and/or Quantity of Material Which Licensee May Possess at Any One Time
A. Mixed activation and fission products with atomic numbers 3-83 inclusive (including C-14)	A. Any form as suitable for transport under U.S. DOT Regulations	A. 1 Curie
B. Hydrogen 3	B. Same as 8.A.	B. 0.5 Curie
C. Radioactive materials with atomic numbers 84-91 inclusive	C. Same as 8.A.	C. 0.1 Curie
D. Radioactive materials with atomic numbers 92-100 except as in Items 6.E. and 6.F.	D. Same as 8.A.	D. 1 millicurie
E. Am-241, Am-242, Cm-242, Cm-243, Np-237, Fm- 257	E. Same as 8.A.	E. 1 millicurie
F. Special nuclear material (U-233, U-235, plutonium)	F. Same as 8.A.	F. Total not to exceed 1 gram *
G. Any radioactive material	G. Sealed source	G. No single source to exceed 100 microcuries. Total not to exceed 10 millicuries. *

\* For each kind of special nuclear material determine the ratio between the quantity of that special nuclear material and the quantity specified here for the same kind of special nuclear material. The sums of such ratios for all kinds of special nuclear material in combination shall not exceed "1" (i.e. unity).

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#### 10. Authorized Use

- A. through F. Receipt, possession, storage, processing, and transfer incidental to the decontamination, refurbishment, testing, and recycling of valuable equipment in accordance with statements, representations, and procedures contained in the references in Condition 33 of this license.
- G. Calibration and/or standardization sources (Manufactured and distributed in accordance with a license issued by the Department, the U. S. Nuclear Regulatory Commission, an Agreement State or Licensing State, as appropriate)

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#### Conditions (continued)

12. The licensee shall comply with applicable provisions of 1200-2-4, 1200-2-5, and 1200-2-10 of "State Regulations for Protection Against Radiation."
13. A. Radioactive material authorized by this license shall be used by, or under the supervision of, Mike Anderson, Tim Beal, Kevin Burian, Randy Dupree, Tim Fischer, Wes Keeton, Victor G. Lomnicki, James Nelson, Cinda Roskelly, Dale Smith, or Lowell Tinker.
- B. The licensee is authorized to exempt certain activities conducted at this facility that do not directly involve the use of radioactive material from licensed user coverage required above. The Radiation Safety Officer shall be responsible for ascertaining the extent to which radioactive material contamination is present, and the precautions necessary to minimize exposure, and the extent to which these activities may be performed without licensed user coverage. The health and safety work permit issued pursuant to this authorization shall define the activity, and the amount of health physics support needed in the absence of an authorized user. These records shall be made available for inspection by the Department.
- C. The Radiation Safety Officer for this license is Victor G. Lomnicki.

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14. A. No radioactive material (excluding calibration and standardization sources) or radioactive waste may be possessed under this license, from its time of receipt until its transfer from the facility, for a period of time greater than three hundred sixty five (365) days, or in the case of nuclear power plant equipment and components awaiting refurbishment, five hundred forty (540) days

B. No radioactive material or radioactive waste may be stored so as to exceed the following stacking limits:

<u>Container Type</u>	<u>Stacking Limit</u>
1. Drums	3 high
2. B-25 Boxes	3 high
3. B-12 Boxes	5 high
4. Sea-Land Cont.	2 high
5. QC Boxes	2 high
6. Any other strong tight container.	10 feet nominal unless the natural height of the container exceeds 10 feet

C. This condition also includes "waste radioactive material" generated under the authority of this license.

15. Radioactive material and contaminated equipment may be stored outside of the process and storage building provided that allowable radiation levels in unrestricted areas are not exceeded. This material must be stored in either locked DOT intermodal containers as described in Title 49 Code of Federal Regulations (CFR) Part 101-3.61 or DOT approved strong tight containers. In addition to these requirements the following criteria and restrictions must be adhered to whenever radioactive materials are stored:

A. Containers used for outside storage of radioactive materials must be capable of withstanding environmental conditions. Wooden containers are not considered suitable for outside storage. Materials received in wooden containers may remain outside for a period not to exceed fifteen (15) days, provided the containers are covered with a plastic tarp so as to prevent the infiltration of rainwater. After 15 days the material must be moved inside or repackaged in a container suitable for outside storage.

B. Outside storage of radioactive materials is only permitted in paved (asphalt or concrete) areas. Storage on grass, dirt, or gravel is specifically prohibited.

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- C. Soil samples must be collected and analyzed at least quarterly along the edges of outside asphalt or concrete pads where radioactive materials are stored and along the perimeter fence to ensure that there is no buildup of radioactive contamination. Data from these samples must be maintained for inspection by the Department.

The combined authorizations for processing and storage granted by this license shall not exceed a total of 12,115 square feet.

16. The licensee is authorized to store containers which previously contained radioactive material (empty containers) outside of the process and storage building. Each empty container in outside storage shall:
- a. be emptied of contents as far as practical;
  - b. contain no hazardous material or standing liquid;
  - c. be in unimpaired condition and securely closed so that there will be no leakage under conditions normally incident to transportation or storage;
  - d. have no radiation levels on the external surface of the package exceeding 0.5 mR/hr average and 2.0 mR/hr hotspot;
  - e. have no non-fixed contamination on the external surface of the package exceeding 10% of NRC Reg. Guide 1.86 free release limits;
  - f. have no internal non-fixed contamination exceeding:
 

Beta and gamma emitters and low toxicity alpha emitters;	2200 dpm/cm <sup>2</sup>
All other alpha emitters;	220 dpm/cm <sup>2</sup>
  - g. have any labels previously applied removed, obliterated, or covered and an "Empty" label affixed;

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- h. be stored on a paved (asphalt or concrete) surface:
- i. be arranged such that the containers can be visually inspected on all sides; and
- j. be arranged such that empty containers are stacked in accordance with Condition 14.B. of this license

(\*As defined by USDOT 49CFR 173.403)

17. The licensee shall not accept either radioactive waste and/or items contaminated or potentially contaminated with licensable quantities of radioactive material or radioactive materials or items from licensable activities for repackaging, processing, refurbishing, storage pending disposal or disposal unless the shipper of such waste possesses a valid license for delivery issued pursuant to 1200-2-10-.32 of "State Regulations for Protection Against Radiation."
18. Written assurances must be furnished by the facility shipping the radioactive material indicating that the facility may accept return of the material processed or unprocessed. In addition, for states outside the Southeast Compact the state or appropriate Compact must be a signatory to the Interregional Access Agreement for Waste Management or assurances shall be obtained from the appropriate state governor's office, the state radiation control program, and the appropriate Compact official, if any.
19. The licensee shall establish in every contractual obligation relating to radioactive materials the ability to return radioactive materials, processed or unprocessed, to the prior licensed or exempt possessor.
20. This license does not authorize the disposal of liquid wastes to the sanitary sewerage system. Liquid wastes shall be transferred to Nuclear Materials Management Center for processing and disposal in accordance with conditions and criteria referenced in Tennessee Radioactive Material License Number R-10137.

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21. The licensee shall maintain complete and accurate records of the receipt and disposal of radioactive material. The licensee shall, for radioactive material no longer useful for any purpose and for any equipment or supplies contaminated with such material for which further use and decontamination are not planned, define those materials as radioactive waste and treat them as such in accordance with the following provisions:

- A. Radioactive waste material shall not be stored with non-radioactive waste.
- B. A written record of all radioactive waste material shall be maintained until it has been determined by a suitable survey or radioassay that it has decayed to background levels or until it has been shipped to an authorized recipient in accordance with applicable regulations.

Accountability of radioactive waste material prepared for shipment but not yet shipped from the licensee's premises shall be maintained by the licensee by an internal record system such that the licensee is constantly aware of the material's location and the proposed time of shipment. Individuals who are involved in the shipping of such material and/or the storage of such material prior to shipment, shall be trained in the precautions necessary for such handling and storage.

- C. For material which has decayed to background levels as determined by radioassay or external level as measured with appropriately calibrated instruments, records shall indicate that the material was determined to be no longer radioactive and will indicate the methods and results of the survey or analysis.
- D. Shipment records of radioactive waste material shall be maintained and the licensee shall require written confirmation from the authorized recipient of such material that this material has been received.
- E. Transfer of radioactive waste to a land disposal facility or a licensed waste handler shall be done in accordance with 1200-2-5-.125 of "State Regulations for Protection Against Radiation."
- F. All records and written confirmations required by this condition shall be maintained for inspection by the Department.

The requirements of this condition are in addition to any other requirements for the handling and/or disposal of radioactive material contained in this license and "State Regulations for Protection Against Radiation."

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22. A. Sealed sources authorized by this license with greater than 10 microcuries of alpha emitting material shall be tested for leakage and/or contamination at intervals not to exceed six (6) months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to transfer, the sealed source shall not be put into use until tested.
- B. The tests shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample, or in the case of radium, the escape of radon at the rate of 0.001 microcurie per 24 hours. The test sample shall be taken from the sealed source or from the surface of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak tests shall be kept in units of microcuries and maintained for inspection by the Department.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, or in the case of radium, the escape of radon at the rate of 0.001 microcurie or more per 24 hours, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Department regulations. A report shall be filed within five (5) days of the test with the Division of Radiological Health, 3<sup>rd</sup> Floor, L&C Annex, 401 Church Street, Nashville, TN 37243-1532, describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by the licensee, or by other persons authorized by this Department, the U. S. Nuclear Regulatory Commission, or another Agreement State to perform such services.
23. Except for plutonium contained in a medical device designed for individual human application, no plutonium, regardless of form, shall be delivered to a carrier for shipment by air transport or transported in an aircraft by the licensee, except in packages the design of which the NRC has specifically approved for transport of plutonium by air.
24. The licensee is authorized to receive, possess, and use any radioactive material distributed under a general license, issued by the U. S. Nuclear Regulatory Commission, or another Agreement State, without being specifically referenced in Items 6, 8, 9 and 10 of this license. Notwithstanding any other conditions of this license, the general licensee may possess and use radioactive material received under the provisions of 1200-2-10 of "State Regulations for Protection Against Radiation" in accordance with the requirements provided at the time of the transfer of the radioactive material under the terms of the general license.

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25. The following evaluations shall be performed for all process ventilation systems:
- 1) Air balance within the RCA at least semi-annually, and following any ventilation system or process changes which could potentially alter the effectiveness of the system.
  - 2) Particulate removal efficiency of the main filtration system HEPA filters by DOP or comparable testing in accordance with pertinent ANSI standards immediately following installation of new HEPA filters or at least semi-annually.
26. In addition to other requirements of this license or of Chapter 1200-2-5-.60 of "State Regulations for Protection Against Radiation," the licensee shall conduct operations so that radiation levels in unrestricted areas would not cause an individual, assuming an occupancy of one (1), to receive a total effective dose equivalent in excess of 500 millirems in one calendar year. These radiation levels shall be appropriately monitored by the licensee, and records of such monitoring shall be maintained for inspection by the Department. For calculational purposes of this condition, the licensee shall base its anticipated exposure to a member of the public upon the sum of the maximally exposed TLD and the highest air concentration derived using the latest available pertinent data.
27. The licensee is authorized to install and operate a belt sander unit in accordance with statements, representations, and procedures contained in letters dated November 10, 1994, with attachment, and November 23, 1994, with attachment. The Radiation Safety Officer shall be physically present during the initial start up of the operation of this unit, and shall supervise the conduct and evaluation of the air sampling program performed to identify the need for the addition of engineering controls (connection of the unit to the existing facility HEPA ventilation system). The Radiation Safety Officer shall cause the cessation of the operation of this unit if an increase in airborne radioactive material is detected. The Department shall be informed if it is necessary to cease operation of this unit.
28. The licensee is authorized to decontaminate, refurbish, and test reactor coolant pump seals from domestic nuclear power plants in accordance with statements, representations, and procedures, contained in letters dated January 8, 1996, with attachments, and February 22, 1996, with attachments. Refurbishment authorized by this condition is defined by this Department to mean disassembly, cleaning, re-assembly, and replacement of consumable parts.

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29. The licensee is authorized to transfer nuclear power plant motors (which do not meet the unrestricted use release criteria of U.S.N.R.C. Regulatory Guide 1.86) for the purpose of stator stacking, winding, and Vacuum Pressure Impregnation to temporary job-sites (unlicensed facilities providing such refurbishment services) throughout the State of Tennessee not under exclusive Federal jurisdiction. Such transfers and refurbishment activities shall be in accordance with statements, representations, and procedures contained in letters dated January 7, 1997, and January 30, 1997, with attachments. The motor shall be accompanied during its possession and handling at the unlicensed facility by a representative of the licensee trained in health physics. The health physics technician shall insure that proper control and handling of the motor to prevent unnecessary radiation exposure to workers at the facility occurs as described in the letters dated January 7, 1997, and January 30, 1997, with attachments. This transfer of the motor for use at temporary job sites is contingent upon the approval of the regulatory agency having jurisdiction over the receipt, possession, and use of the radioactive material contained on/in the motor. Before the radioactive material can be transferred to a temporary job site at any Federal facility, the jurisdictional status of the job site must be determined. If the jurisdictional status is unknown, the Federal agency should be contacted to determine if the job site is under exclusive Federal jurisdiction. A response should be obtained in writing or a record should be made of the name and title of the person at the Federal agency who provided the determination and the date that it was provided. Authorization for use of radioactive materials at job sites under exclusive Federal jurisdiction shall be obtained by: (1) filing NRC Form-241 in accordance with 10CFR 150.20(b), "Recognition of Agreement State Licenses," or (2) by applying for a specific NRC license.
30. A. The licensee shall develop and maintain written radiological protection procedures that ensure implementation of the radiation safety program in accordance with "State Regulations for Protection Against Radiation" (SRPAR), ALARA, and the documents referenced in Condition 33 of this license.
- B. In addition, the licensee shall develop and implement written standard operating procedures to ensure all activities involving the handling and/or use of radioactive materials authorized by this license are carried out in a manner consistent with SRPAR, ALARA, and the documents referenced in Condition 33 of this license. Activities for which written procedures must be developed include the operation and maintenance of processing equipment, waste treatment systems, and all ancillary systems in, or on, which radioactive materials may be present.
- C. The written procedures required by this condition shall be available for inspection by the Department. These written procedures may be modified without prior approval of the Department when deemed appropriate and documented by the Radiation Safety Officer. However, adherence to the current procedures as written shall be considered a condition of the license.

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31. The licensee has provided \$508,830.00 US (five hundred and eight thousand and eight hundred and thirty US Dollars) in financial assurance monies in accordance with "State Regulations for Protection Against Radiation" 1200-2-10-.12(4). This financial assurance will provide for a total of 12,115 square feet of licensed space, under current Departmental calculation policy.
32. No provision of this license relieves the licensee from compliance with other Federal, State, and local laws, ordinances, and regulations applicable to the licensee's activities.
33. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in application dated September 22, 1998, with attachments, and letters dated November 10, 1994, with attachment, November 23, 1994, with attachment, January 8, 1996, with attachments, February 22, 1996, with attachments, January 7, 1997, January 30, 1997, with attachments, June 9, 1997, with attachments, and January 15, 1999, with attachments.

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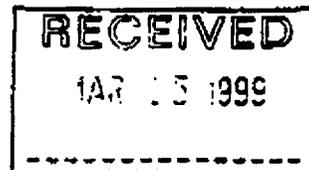
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American Ecology Recycle Center, Inc.  
d.b.a. U. S. Ecology Nuclear Equipment Service Center  
109 Flint Road  
Oak Ridge, TN 37830



Attention: Victor G. Lomnicki, Director of Regulatory Compliance/Radiation Safety Officer

Gentlemen:

As requested by Victor Lomnicki and in accordance with his letter dated March 18, 1999, your Tennessee Radioactive Material License number R-01068-B04 is amended as follows:

To add Condition 34. This Condition will read as follows:

34. The licensee is authorized in accordance with letter dated March 18, 1999, to transport a motor coupling from the Nuclear Equipment Service Center to Oak Ridge Tool and Die Engineering, Inc., 777 Emory Valley Road for the purpose of performing tolerance measurements. The activities authorized at Oak Ridge Tool and Die Engineering, Inc. do not include machining or grinding of the part and are to be performed under the direction of a senior level health physics specialist. Radioactive material contamination surveys shall be performed of the area(s) where the work is performed and the results of these surveys shall be documented for review by the Department. This Condition is effective March 18, 1999.

To change Condition 33. This Condition will now read as follows:

33. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in application dated, September 22, 1998, with attachments, and letters dated November 10, 1994, with attachment, November 23, 1994, with attachment, January 8, 1996, with attachments, February 22, 1996, with attachments, January 7, 1997, January 30, 1997, with attachments, June 9, 1997, with attachments, January 15, 1999, with attachments, and March 18, 1999.

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(9-92)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH

**RADIOACTIVE MATERIAL LICENSE**

Amendment 36

Page 2 of 2 Pages

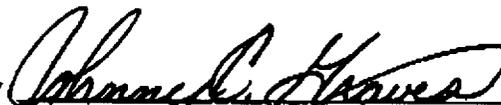
License Number R-01068-B04

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All other parts of this license remain unchanged.  
Date: March 18, 1999

For the Commissioner  
Tennessee Department of  
Environment and Conservation

By



Johnny C. Graves  
Licensing, Registration, Planning Manager  
Division of Radiological Health

Form RHS 8-7A  
(9-92)

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH**

**RADIOACTIVE MATERIAL LICENSE**

**Amendment 37**

**Page 1 of 2 Pages**

**License Number R-01068-B04**

American Ecology Recycle Center, Inc.  
d.b.a. U. S. Ecology Nuclear Equipment Service Center  
109 Flint Road  
Oak Ridge, Tennessee 37830

Attention: Mark G. McHugh, Radiation Safety Officer

Gentlemen:

As requested by John H. DeOld and in accordance with his letters dated April 16, 1999, with attachments, and April 26, 1999, with attachments, your Tennessee Radioactive Material License number R-01068-B04 is amended as follows:

To change Conditions 13 and 33. These conditions will now read as follows:

13. A. Radioactive material authorized by this license shall be used by, or under the supervision of, Mike Anderson, Tim Beal, Kevin Burian, Randy Dupree, Tim Fischer, James Nelson, Cinda Roskelly, Dale Smith, Lowell Tinker, or Mark G. McHugh.
  - B. The licensee is authorized to exempt certain activities conducted at this facility that do not directly involve the use of radioactive material from licensed user coverage required above. The Radiation Safety Officer shall be responsible for ascertaining the extent to which radioactive material contamination is present, and the precautions necessary to minimize exposure, and the extent to which these activities may be performed without licensed user coverage. The health and safety work permit issued pursuant to this authorization shall define the activity, and the amount of health physics support needed in the absence of an authorized user. These records shall be made available for inspection by the Department.
  - C. The Radiation Safety Officer for this license is Mark G. McHugh.
33. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in application dated, September 22, 1998, with attachments, and letters dated November 10, 1994, with attachment, November 23, 1994, with attachment, January 8, 1996, with attachments, February 22, 1996, with attachments, January 7, 1997, January 30, 1997, with attachments, June 9, 1997, with attachments, January 15, 1999, with attachments, March 18, 1999, April 16, 1999, with attachments, and April 26, 1999, with attachments.

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This amendment is considered effective April 22, 1999.

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Form RHS R-7A  
(9-92)

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH**

**RADIOACTIVE MATERIAL LICENSE**

**Amendment 37**

**Page 2 of 2 Pages**

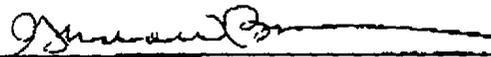
**License Number R-01068-B04**

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**All other parts of this license remain unchanged.**

**Date: April 27, 1999**

**For the Commissioner  
Tennessee Department of  
Environment and Conservation**

By   
**Gerald W. Bacon  
Health Physicist  
Division of Radiological Health**

Form RHS 8-7A  
(9-92)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH

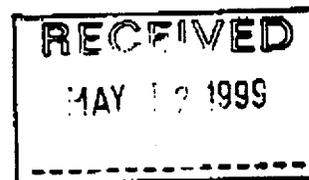
**RADIOACTIVE MATERIAL LICENSE**

Amendment 38

Page 1 of 3 Pages

License Number R-01068-B04

American Ecology Recycle Center, Inc.  
d.b.a. U. S. Ecology Nuclear Equipment Service Center  
109 Flint Road  
Oak Ridge, Tennessee 37830



Attention: Mark G. McHugh, Radiation Safety Officer

Gentlemen:

As requested by Victor G. Lomnicki and in accordance with his letter dated April 6, 1999, with attachments, your Tennessee Radioactive Material License number R-01068-B04 is amended as follows:

To add Condition 35. This condition will read as follows:

35. Radioactive material authorized by this license shall be used at 120 Franklin Road, Oak Ridge, TN 37830.

To change Item 2 and Conditions 15, 16, and 33. This item and these conditions will now read as follows:

2. 109 Flint Road  
Oak Ridge, TN 37830
15. Radioactive material and contaminated equipment may be stored outside of the process and storage building provided that allowable radiation levels in unrestricted areas are not exceeded. This material must be stored in either DOT intermodal containers as described in Title 49 Code of Federal Regulations (CFR) Part 171.8 or DOT approved strong tight containers. In addition to these requirements the following criteria and restrictions must be adhered to whenever radioactive materials are stored:
  - A. Containers used for outside storage of radioactive materials must be capable of withstanding environmental conditions. Wooden containers are not considered suitable for outside storage. Materials received in wooden containers may remain outside for a period not to exceed fifteen (15) days, provided the containers are covered with a plastic tarp so as to prevent the infiltration of rainwater. After 15 days the material must be moved inside or repackaged in a container suitable for outside storage.
  - B. Outside storage of radioactive materials is only permitted in paved (asphalt or concrete) areas. Storage on grass, dirt, or gravel is specifically prohibited.

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(9-92)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH

RADIOACTIVE MATERIAL LICENSE

Amendment 38

Page 2 of 3 Pages

License Number R-01068-B04

- C. Soil samples must be collected and analyzed at least semi-annually along the edges of outside asphalt or concrete pads where radioactive materials are stored and along the perimeter fence to ensure that there is no buildup of radioactive contamination. Data from these samples must be maintained for inspection by the Department.

The combined authorizations for processing and storage granted by this license shall not exceed a total of 12,115 square feet.

16. The licensee is authorized to store containers which previously contained radioactive material (empty containers) outside of the process and storage building. Each empty container in outside storage shall:

- a. be emptied of contents as far as practical;
- b. contain no hazardous material or standing liquid;
- c. be in unimpaired condition and securely closed so that there will be no leakage under conditions normally incident to transportation or storage;
- d. have no radiation levels on the external surface of the package exceeding 0.5 mR/hr average and 2.0 mR/hr hotspot;
- e. have no non-fixed contamination on the external surface of the package exceeding 10% of NRC Reg. Guide 1.86 free release limits;
- f. have no internal non-fixed contamination exceeding:

Beta and gamma emitters  
2200 dpm/cm<sup>2</sup>  
and low toxicity alpha emitters\*;

All other alpha emitters;

220 dpm/cm<sup>2</sup>

- g. have any labels previously applied removed, obliterated, or covered and an "Empty" label affixed;
- h. be arranged such that the containers can be visually inspected on all sides

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**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH**

**RADIOACTIVE MATERIAL LICENSE**

**Amendment 38**

(As defined by USDOT 49CFR 173.403)

33. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in application dated, September 22, 1998, with attachments, and letters dated November 10, 1994, with attachment, November 23, 1994, with attachment, January 8, 1996, with attachments, February 22, 1996, with attachments, January 7, 1997, January 30, 1997, with attachments, June 9, 1997, with attachments, January 15, 1999, with attachments, March 18, 1999, April 6, 1999, with attachments, April 16, 1999, with attachments, and April 26, 1999, with attachments.

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**All other parts of this license remain unchanged.**

**Date: May 3, 1999**

**For the Commissioner  
Tennessee Department of  
Environment and Conservation**

By Charles Arnott  
**Charles Arnott  
Health Physicist  
Division of Radiological Health**

(9-92)

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH**

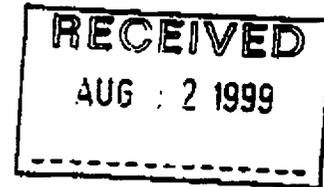
**RADIOACTIVE MATERIAL LICENSE**

**Amendment 39**

Page 1 of 1 Pages

License Number R-01068-B04

American Ecology Recycle Center, Inc.  
d.b.a. U. S. Ecology Nuclear Equipment Service Center  
109 Flint Road  
Oak Ridge, Tennessee 37830



Attention: Mark G. McHugh, Radiation Safety Officer

Gentlemen:

As requested by Mark McHugh and in accordance with his letter dated July 1, 1999, your Tennessee Radioactive Material License number R-01068-B04 is amended as follows:

To change Condition 33. This condition will now read as follows:

33. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in application dated, September 22, 1998, with attachments, and letters dated November 10, 1994, with attachment, November 23, 1994, with attachment, January 8, 1996, with attachments, February 22, 1996, with attachments, January 7, 1997, January 30, 1997, with attachments, June 9, 1997, with attachments, January 15, 1999, with attachments, March 18, 1999, April 6, 1999, with attachments, April 16, 1999, with attachments, April 26, 1999, with attachments and July 1, 1999.

To delete Condition 16. h. This condition is hereby deleted.

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**All other parts of this license remain unchanged.**

**Date: July 20, 1999**

**For the Commissioner  
Tennessee Department of  
Environment and Conservation**

By Roger Fenner  
**Roger Fenner  
Health Physicist  
Division of Radiological Health**

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(9-92)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH

**RADIOACTIVE MATERIAL LICENSE**

**Amendment 41**

**Page 1 of 2 Pages**

**License Number R-01068-B04**

American Ecology Recycle Center, Inc.  
d.b.a. U. S. Ecology Nuclear Equipment Service Center  
109 Flint Road  
Oak Ridge, Tennessee 37830

Attention: Charles Coleman, Radiation Safety Officer

Gentlemen:

As requested by Linda Beach and in accordance with her letters dated April 28, 2000, with attachments, and May 23, 2000, with attachments, your Tennessee Radioactive Material License number R-01068-B04 is amended as follows:

To change Conditions 13 and 33. These conditions will now read as follows:

13. A. Radioactive material authorized by this license shall be used by, or under the supervision of, Mike Anderson, Tim Beal, Randy Dupree, James Nelson, Cinda Roskelly, Dale Smith, Lowell Tinker, or Charles Coleman.
  - B. The licensee is authorized to exempt certain activities conducted at this facility that do not directly involve the use of radioactive material from licensed user coverage required above. The Radiation Safety Officer shall be responsible for ascertaining the extent to which radioactive material contamination is present, and the precautions necessary to minimize exposure, and the extent to which these activities may be performed without licensed user coverage. The health and safety work permit issued pursuant to this authorization shall define the activity, and the amount of health physics support needed in the absence of an authorized user. These records shall be made available for inspection by the Department.
  - C. The Radiation Safety Officer for this license is Charles Coleman.
33. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in application dated, September 22, 1998, with attachments, and letters dated November 10, 1994, with attachment, November 23, 1994, with attachment, January 8, 1996, with attachments, February 22, 1996, with attachments, January 7, 1997, January 30, 1997, with attachments, June 9, 1997, with attachments, January 15, 1999, with attachments, March 18, 1999, April 6, 1999, with attachments, April 16, 1999, with attachments, April 26, 1999, with attachments, July 1, 1999, August 11, 1999, August 25, 1999, April 28, 2000, with attachments, and May 23, 2000, with attachments.

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The change in Radiation Safety Officer is considered effective April 28, 2000.

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**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH**

**RADIOACTIVE MATERIAL LICENSE**

**Amendment 41**

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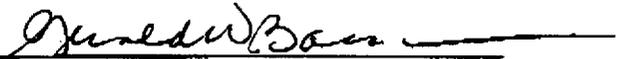
**License Number R-01068-B04**

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**All other parts of this license remain unchanged.**

**Date: May 26, 2000**

**For the Commissioner  
Tennessee Department of  
Environment and Conservation**

By   
**Gerald W. Bacon  
Health Physicist  
Division of Radiological Health**

Form RHS 8-7A  
(9-92)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH

**RADIOACTIVE MATERIAL LICENSE**

**Amendment 42**

Page 1 of 2 Pages

License Number R-01068-B04

Nuclear Equipment Services Center, Inc.  
120 Franklin Road  
Oak Ridge, Tennessee 37830

Attention: Charles Coleman, Radiation Safety Officer

Gentlemen:

As requested by Mark McHugh and in accordance with his letter dated March 20, 2000, with attachments, and as requested by Jack K. Lemley and in accordance with his letter dated May 25, 2000, your Tennessee Radioactive Material License number R-01068-B04 is amended as follows:

To change Items 1 and 2 and Conditions 13 and 33. These items and these conditions will now read as follows:

1. Nuclear Equipment Services Center, Inc.
2. 120 Franklin Road  
Oak Ridge, Tennessee 37830
13. A. Radioactive material authorized by this license shall be used by, or under the supervision of, Mike Anderson, Timothy Beal, James Nelson, Cinda L. Roskelly, Lowell T. Tinker, or Charles Coleman.  
  
B. The licensee is authorized to exempt certain activities conducted at this facility that do not directly involve the use of radioactive material from licensed user coverage required above. The Radiation Safety Officer shall be responsible for ascertaining the extent to which radioactive material contamination is present, and the precautions necessary to minimize exposure, and the extent to which these activities may be performed without licensed user coverage. The health and safety work permit issued pursuant to this authorization shall define the activity, and the amount of health physics support needed in the absence of an authorized user. These records shall be made available for inspection by the Department.  
  
C. The Radiation Safety Officer for this license is Charles Coleman.
33. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in application dated, September 22,

Ferm RHS 8-7A  
(9-92)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH

**RADIOACTIVE MATERIAL LICENSE**

Amendment 42

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License Number R-01068-B04

1998, with attachments, and letters dated November 10, 1994, with attachment, November 23, 1994, with attachment, January 8, 1996, with attachments, February 22, 1996, with attachments, January 7, 1997, January 30, 1997, with attachments, June 9, 1997, with attachments, January 15, 1999, with attachments, March 18, 1999, April 6, 1999, with attachments, April 16, 1999, with attachments, April 26, 1999, with attachments, July 1, 1999, August 11, 1999, August 25, 1999, April 28, 2000, with attachments, March 20, 2000, with attachments, May 23, 2000, with attachments, and May 25, 2000.

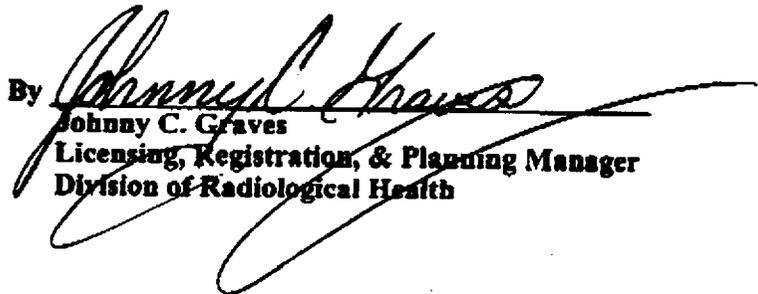
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All other parts of this license remain unchanged.

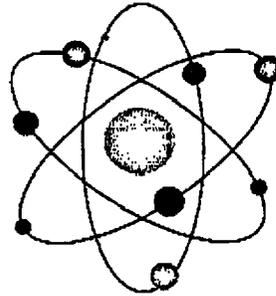
Date: June 6, 2000

For the Commissioner  
Tennessee Department of  
Environment and Conservation

By

  
Johnny C. Graves  
Licensing, Registration, & Planning Manager  
Division of Radiological Health

109 Flint Road  
Oak Ridge, Tennessee 3783  
423-220-5313  
423-220-5365 (FAX)



# Nuclear Equipment Service Company

To:	David Collins	Fax No.	404-562-4955	
From:	Jon Sharpe	Date:	7/14/00	
Re:	License Reciprocity			
	Pages (including cover):		4	
<input type="checkbox"/> Urgent	<input type="checkbox"/> For Review	<input type="checkbox"/> Please Comment	<input type="checkbox"/> Please Reply	<input type="checkbox"/> Please Recycle

Notes: original to be delivered via  
Fed-x on 7/17/00.

REGION II  
Calendar Year 2000

TRANSMITTAL FOR NRC FORM 241 & REVISION SUBMITTALS

[xx] INITIAL 241 PACKAGE      LRN 001000  
[ ] REVISION      LRN \_\_\_\_\_  
[ ] CLARIFICATION      LRN \_\_\_\_\_

LICENSEE NAME : Nuclear Equipment Services  
LICENSE STATE : TN      NUMBER : R-0168-804  
CHECK NO: 11062  
CHECK AMOUNT: \$699.00  
FORWARDED BY: Deane Hemm

	Initial	Revision	Clarification
includes: Form 241	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fee	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
License Copy	<input checked="" type="checkbox"/>		

LICENSE FEE & ACCOUNT RECEIVABLE BRANCH

1. Fee Category and Amount: \_\_\_\_\_
2. Correct Fee Paid. Submittal may processed for:

General License \_\_\_\_\_

Revision \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_