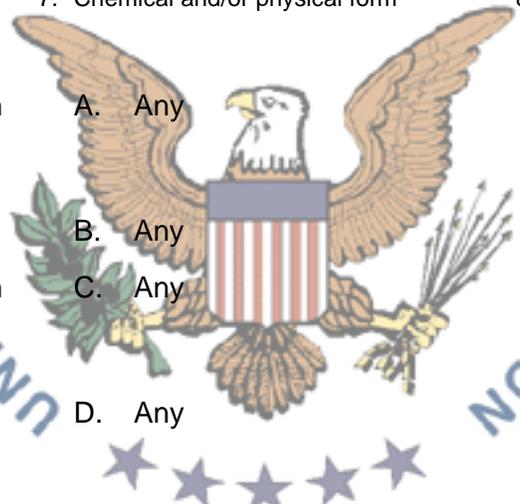


MATERIALS LICENSE

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.

Licensee	In accordance with the letter dated July 14, 2000
1. GTS Duratek, Inc. / Chem-Nuclear Sytems, Inc.	3. License No. 39-23004-01
2. 140 Stoneridge Drive Columbia, South Carolina 29210	is amended in its entirety to read as follows:
	4. Expiration Date: June 30, 2010
	5. Docket No. 030-20159

6. Byproduct, source, and/or special nuclear material A. Any byproduct material with atomic numbers 1 through 92 B. Any source material C. Any byproduct material with atomic numbers 93 and above D. Special nuclear material	7. Chemical and/or physical form A. Any B. Any C. Any D. Any	8. Maximum amount that licensee may possess at any one time under this license A. 1,850 terabecquerels [50,000 curies (Ci)] total B. 5,000 kilograms total C. 370 gigabecquerels [10 Ci] total D. Not to exceed: 350 grams of uranium 235; or 200 grams of uranium 233; or 200 grams of plutonium; or, any combination of these provided the sum of the ratios of the quantities does not exceed unity
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9. Authorized Use:

- A. through D. For receipt, use and/or possession incident to any activity as follows:
- (1) Transport in packages or containers approved for use under the provisions of 10 CFR Part 71 for transfer to persons authorized to receive the licensed material pursuant to the terms and conditions of specific licenses issued by the Nuclear Regulatory Commission or any Agreement State;
 - (2) Decontamination of facilities, equipment, and containers;
 - (3) Treatment of soil, water, or other wastes, by solidification, chemical treatment, resource recovery, or other similar operations;
 - (4) Packaging for transport; and;
9. A.-D.

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- (5) Any activity related to site characterization studies (which is intended to include drilling wells, obtaining and analyzing samples, etc.), and
- (6) Environmental remediation.

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 14 days before initiating activities at a temporary job site, the licensee shall notify, in writing, the Regional Administrator, NRC Region II, ATTN: Division of Nuclear Materials Safety, Materials Licensing/Inspection Branch, 61 Forsyth Street, S.W., Suite 23T85, Atlanta, Georgia 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. Radioactive material originating at each temporary job site may be possessed. Environmental samples for analysis may be transferred to authorized recipients. Materials must either be transferred to an authorized recipient or remain at the site after activities authorized by this license are completed.
- D. Licensee owned calibration sources, reference standards, and radioactively contaminated equipment may be possessed at, and transferred from the temporary job site to authorized recipients.
11. The Radiation Safety Officer for the activities authorized under this license is Mark S. Whittaker, CHP.
12. Licensed material shall be used by, or under the supervision and in the physical presence of, Mark S. Whittaker or any individual trained as specified in application dated January 5, 2000, and designated in writing by the licensee's Safety Review Board.
13. This license does not authorize the import of packages containing byproduct material wastes.

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14. This license does not authorize Chem-Nuclear Systems (the licensee) to use licensed materials which are specifically authorized on the customer's NRC or Agreement State license. If a customer holds an NRC or 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 activities shall be performed under the licensee's supervision pursuant to this license. The agreement shall include a commitment by the licensee and the customer to ensure safety and any commitments by the licensee to help the customer clean up the temporary job site if there is an accident.
15. 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).
16. A. The licensee shall submit a quarterly report to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region II, ATTN: Nuclear Materials Licensing/Inspection Branch, 61 Forsyth Street, S.W., Suite 23T85, Atlanta, Georgia 30303; identifying temporary job site locations and summarizing the activities which took place at each site within thirty (30) days after each calendar quarter.
- B. At the completion of activities at each job site location, the licensee shall notify the Regional Administrator, U.S. Nuclear Regulatory Commission, Region II, ATTN: Nuclear Materials Licensing/Inspection Branch, 61 Forsyth Street, S.W., Suite 23T85, Atlanta, Georgia 30303, of the temporary job site status and the disposition of the licensed material.
17. 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.
18. Pursuant to 10 CFR 30.11, §40.14, §70.14 and License Condition 10., the licensee is exempted from the requirements of 10 CFR 30.35, §40.36, and §70.25 to establish decommissioning financial assurance.
19. Notwithstanding the requirements of 10 CFR 30.32(i), §40.31(j), and §70.22(i), the licensee is not

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required to establish an emergency plan for responding to a release of radioactive materials. 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, Region II, 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.
20. The licensee shall conduct a physical inventory every six months to account for all sources and/or devices received and possessed under the license.
21. Sealed sources or detector cells containing licensed material shall not be opened nor sources removed from source holders by the licensee.
22. The licensee may only transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
23. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed six 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 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. Sealed sources need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
23. D. (iii) the half-life of the isotope is 30 days or less; or

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- (iv) they contain not more than 3.7 megabecquerels [100 microcuries (μCi)] of beta and/or gamma emitting material or not more than 370 kilobecquerels [10 μCi] 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.
- E. The leak test shall be capable of detecting the presence of 185 becquerels (Bq) [0.005 μCi] 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 185 Bq [0.005 μCi] 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 Regional Administrator, U.S. Nuclear Regulatory Commission, Region II, ATTN: Nuclear Materials Licensing/Inspection Branch, 61 Forsyth Street, S.W., Suite 23T85, Atlanta, Georgia 30303. 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.
- F. 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.
24. The licensee's Safety Review Board may make minor changes to the Radiation Safety Program without license amendment provided that: the changes are not potentially important to safety, it is assured that any changes made are in compliance with applicable regulations and the provisions of the license, and the licensee retains a record of each change until the license is amended, renewed or terminated. Examples of permissible changes include: editing of procedures for clarity and conformance with local correspondence requirements; updating of names, addresses, telephone numbers, etc.; adoption of model procedures published in NRC Regulatory Guides; and reassignment of specific tasks among the licensee's work force. Changes in possession limits stated in the license; special authorizations or restrictions stated in license conditions or requests for deviation from Regulatory or License Requirements require an application and prior issuance of a license amendment.
25. 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

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statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application with attachments dated January 5, 2000 [Renewal]

B. Letters dated:

1. **July 14, 2000 [Reflects change of ownership]**



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

ORYSIA MASNYK BAILEY

DATE September 21, 2000

BY /RA/

Region II, Division of Nuclear Materials Safety
61 Forsyth Street, Suite 23T85
Atlanta, GA 30303