

MATERIALS LICENSE

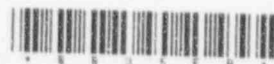
Amendment No. 08

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		In accordance with the letter dated March 4, 1997, 3. License Number 07-28386-01 is amended in its entirety to read as follows:	
1. Koch Engineering Company, Inc. Tru-Tec Division			
2. 31 Albe Drive, Suite 5 Newark, Delaware 19702		4. Expiration Date September 30, 2005	
		5. Docket or Reference No. 030-31174	
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 (Gulf Nuclear CSV, Gamma Ind VD-HP, Gammatron GT-G or GT-GHP, or 3M 4F6S)	A. Not to exceed 500 millicuries per source and 5 curies total	
B. Cesium 137	B. Sealed sources (Amersham CDC.800 series)	B. Not to exceed 500 millicuries per source and 5 curies total	
C. Cobalt 60	C. Sealed sources (Gulf Nuclear CSV, Gamma Ind VD, Gammatron GT-G, or AECL C-168)	C. Not to exceed 500 millicuries per source and 1 curie total	
D. Americium 241	D. Sealed neutron sources (Gulf Nuclear Model 71-1 or VL-1, Gamma Industries Model NB-HP, or Gammatron Model AN- HP)	D. Not to exceed 1 curie per source and 2 curies total	
E. Sodium 24	E. Any	E. 1 curie	
F. Argon 41	F. Gas	F. 2 curie	
G. Krypton 79	G. Gas	G. 20 curies	
H. Bromine 80m	H. Any	H. 1 curie	
I. Bromine 82	I. Any	I. 1 curie	
J. Krypton 85	J. Gas	J. 20 curies	
K. Iodine 131	K. Any	K. 100 millicuries	
L. Lanthanum 140	L. Any	L. 1 curie	
M. Any byproduct material with atomic numbers 3-83 with half life less than or equal to 120 days	M. Any	M. Not to exceed 50 millicuries per radionuclide and 3 curies total	
N. Any byproduct material with atomic numbers 3-83 with half life greater than 120 days	N. Any	N. See Condition 18	
O. Copper 64	O. Any	O. 1 curie	

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SUPPLEMENTARY SHEET

License Number

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9. Authorized use

- A. through D. For use in level and density measurements.
- E. through L. For use in industrial process tracer flow studies.
- M. through O. For storage only, in "Swage-Lok" containers as activation products.

CONDITIONS

- 10. Licensed material may be stored at the licensee's facilities at 31 Albe Drive, Suite 5, Newark, Delaware and 42020 Koppernick Road, Suite 210, Canton, Michigan and may be used 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.
- 11. A. Licensed material shall be used by, or under the supervision and in the physical presence of individuals who have received the training described in application dated June 8, 1994 and have been approved in writing by the Radiation Safety Officer. The license shall maintain records of individuals designated as users for three years following the last use of licensed material by the individual.
B. The Radiation Safety Officer for this license is Michael T. Flenniken.
- 12. Sealed sources containing licensed material shall not be opened by the licensee.
- 13. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed 3 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 3 months.
C. In the absence of a certificate from a transferor indicating that a 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 krypton 85; or
 - (iii) the half-life of the isotope is 30 days or less; or

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- (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. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source involved, the test results, and corrective action taken.

G. The licensee is authorized to collect leak test samples for analysis by the licensee. 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.

- 14. 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.
- 15. The licensee may transport licensed material in accordance with the provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material."
- 16. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days for decay-in-storage before disposal in ordinary trash provided:
 - A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
 - B. Before disposal as normal waste, radioactive waste shall be surveyed to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
- 17. Pursuant to 10 CFR 32.11, and in accordance with letter dated June 8, 1994, the licensee is authorized to introduce byproduct material as contaminants in tracer studies and to transfer ownership and possession of the product or material containing byproduct material to persons exempt from the requirements for a license provided in 10 CFR 30.14. The concentrations of byproduct material at the time of transfer shall not exceed the concentrations in 10 CFR 30.70 nor shall the product be incorporated in any food, beverage, cosmetic, or other commodity or product designed for ingestion or inhalation by, or application to, a human being. The licensee shall report such transfers in accordance with 10 CFR 32.12.

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18. The licensee shall restrict the possession of licensed material in 6.N. above to quantities below the minimum limit specified in 10 CFR 30.35(d), 40.36(b), and 70.25(d) for establishing financial assurance for decommissioning.
19. 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. Letter dated June 13, 1989
 - B. Letter dated January 13, 1992
 - C. Letter dated June 8, 1994
 - D. Letter dated September 30, 1994
 - E. Letter dated January 3, 1995
 - F. Letter dated August 4, 1995
 - G. Letter dated August 17, 1995
 - H. Letter dated December 18, 1995
 - I. Letter dated February 15, 1996
 - J. Letter dated August 28, 1996
 - K. Letter dated March 4, 1997
 - L. Letter dated March 7, 1997

For the U.S. Nuclear Regulatory Commission

Original Signed By:
Duncan White

By

Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

Date MAR 10 1997

MAR 10 1997

Michael Flenniken
Northeast Regional Manager
Koch Engineering Company, Inc.
Tru-Tec Division
31 Albe Drive, Suite 5
Newark, Delaware 19702

Dear Mr. Flenniken:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. 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.

Thank you for your cooperation.

Sincerely,

Original Signed By:
Duncan White

Duncan White
Division of Nuclear Materials Safety

License No. 07-28386-01
Docket No. 030-31174
Control No. 124347

Enclosure:
Amendment No. 08

DOCUMENT NAME: R:\WPS\MLTR\L0728386.01

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	N	DNMS/RI				
NAME	DWhite						
DATE	03/07/97	03/ /97	03/ /97	03/ /97	03/ /97		

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Tru-Tec Division

KOCH ENGINEERING COMPANY INC

March 4, 1997

Licensing Assistance Section
Nuclear Regulatory Commission, Region I
475 Allendale Rd.
King of Prussia, PA 19406-1415

MS16
Q-4

RE: Amendments to NRC License No. 07-28386-01, Docket No. 030-31174

Please make the following amendments to our license. Enclosed is a \$300.00 check for the amendment fee. Item 1 of the amendments is for a customer's request for a special application, and is a priority. We would appreciate any expediting procedures available to be used while processing this amendment.

- Item #1 Add Krypton 79 gas, quantity not to exceed 20 curies, to be used in industrial process tracer flow studies.
- Item #2 Increase maximum amount of Item F (Argon 41) from 1 curie to 2 curies.
- Item #3 Increase maximum amount of Item K (Lanthanum 140) from 500 millicuries to 1 curie.

Thank you for your attention in this matter;

Mike Flenniken
Northeast Regional Manager - RSO

copy: Duncan White
 Nuclear Materials Safety Branch - Region I
 475 Allendale Rd.
 King of Prussia, PA 19406-1415

Brenda Brown
License Fee Analyst
11545 Rockville Pike
Rockville, MD 20852
Mailstop T9E10

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124347
MAR -7 1997

TELEPHONE CONVERSATION RECORD		Date: 3/6/97	Time: 3:45 pm
Mail Control No.: 124347		License : 07-28386-01	Docket No.: 030-31174
Person Called: Mike Flenniken Radiation Safety Officer		Organization: Tru-Tec	Telephone Number: (302) 454-1109
Person Calling: Duncan White			
Subject: Amendment Request dated March 4, 1997			
Summary: Requested that the licensee provide the following information: <ol style="list-style-type: none"> 1. Commitment to use Kr-79 gas in accordance to procedures incorporated into their license. 2. Typical amount to be used at a job site. <p>Mr. Flenniken stated that due to the relatively short half life of Kr-79 (34 hours), the licensee would request twice the amount from the supplier since the gas would decay during shipment.</p>			
Action Required/Taken: MS15			
Signature: Duncan White <i>D. White</i>		Date: March 6, 1997	

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ML 10



Tru-Tec Division

KOCH ENGINEERING COMPANY INC

March 4, 1997

Licensing Assistance Section
Nuclear Regulatory Commission, Region I
475 Allendale Rd.
King of Prussia, PA 19406-1415

030-31174

RE: Amendments to NRC License No. 07-28386-01, Docket No. 030-31174

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Thank you for your attention in this matter;

Mike Flenniken
Northeast Regional Manager - RSO

copy: Duncan White
 Nuclear Materials Safety Branch - Region I
 475 Allendale Rd.
 King of Prussia, PA 19406-1415

Brenda Brown
License Fee Analyst
11545 Rockville Pike
Rockville, MD 20852
Mailstop T9E10

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MAR - 5 1997

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ML 10

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03110
STATUS CODE: 0
FEE CATEGORY: 3P
EXP. DATE: 20050930
FEE COMMENTS: -----
DECOM FIN ASSUR REQD: Y
.....

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: KOCH ENGINEERING COMPANY, INC.
RECEIVED DATE: 970305
DOCKET NO: 3031174
CONTROL NO.: 124347
LICENSE NO.: 07-28386-01
ACTION TYPE: AMENDMENT

2. FEE ATTACHED

AMOUNT: \$300.00
CHECK NO.: 3947147

3. COMMENTS

SIGNED Mr. A. Perkins
DATE 3/5/97

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED 1)

1. FEE CATEGORY AND AMOUNT: 3P \$300

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

AMENDMENT -----
RENEWAL -----
LICENSE -----

3. OTHER -----

SIGNED -----
DATE -----

2(97)

Log	<u>HLR 2</u>
Renewal	<u>TCU - TECH</u>
Check No.	<u>3947147</u>
Amount	<u>\$300</u>
Fee Category	<u>3P</u>
Type of Fee	<u>Amo</u>
Date Check Rec'd	<u>4/2/97</u>
Date Completed	<u>3/10/97</u>
By:	<u>GA</u>

Expedite - 07 for 3/10/97