

**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.

<p style="text-align: center;">Licensee</p> <p>1. Union Carbide Corporation Bushy Run Research Center</p> <p>2. 6702 Mellon Road Export, Pennsylvania 15632-8902</p>	<p>In accordance with the letter dated June 5, 1998,</p> <p>3. License number 37-19533-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date August 31, 2002</p> <hr/> <p>5. Docket No. 030-17840 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Hydrogen 3</p> <p>B. Carbon 14</p> <p>C. Sulfur 35</p> <p>D. Krypton 85</p> <p>E. Nickel 63</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>D. Any</p> <p>E. Plated sources or foils</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 200 millicuries</p> <p>B. 500 millicuries</p> <p>C. 100 millicuries</p> <p>D. 1 microcurie</p> <p>E. 15 millicuries per source and 60 millicuries total</p>
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9. Authorized use:

A. through E. For decommissioning of facilities.

983004                      **CONDITIONS**

10. Licensed material may be used only at the licensee's facilities at Bushy Run Research Facility, 6702 Mellon Road, Export, Pennsylvania.

11. A. Licensed material shall be used by, or under the supervision of, Sean T. Norris.

    B. The Radiation Safety Officer for this license is Sean T. Norris.

9810260263 980918  
PDR ADOCK 03017840  
C                                      PDR

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
37-19533-01Docket or Reference Number  
030-17840

Amendment No. 9

12. 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: Director, Division of Nuclear Materials Safety, 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.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

37-19533-01

Docket or Reference Number

030-17840

Amendment No. 9

- 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.
13. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee.
14. Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.
15. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory.
16. 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 18, 1991
  - B. Letter dated July 13, 1992
  - C. Application dated April 25, 1994
  - D. Letter dated September 11, 1997
  - E. Letter dated June 5, 1998

For the U.S. Nuclear Regulatory Commission

**Original signed by John D. Kinneman**Date September 18, 1998

By

John D. Kinneman, Chief  
Nuclear Materials Safety Branch 2  
Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406

September 18, 1998

Docket No. 030-17840  
Control No. 125781

License No. 37-19533-01

Timothy A. King  
Program Manager  
Union Carbide Corporation  
P.O. Box 8361  
Building 2000  
South Charleston, WV 25303

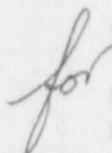
Dear Mr. King:

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 John D. Kinneman*

Richard Gibson, Jr.  
Health Physicist  
Nuclear Materials Safety Branch 2  
Division of Nuclear Materials Safety

Enclosure:  
Amendment No. 9

cc:  
Sean T. Norris, Radiation Safety Officer

ML10

T. King  
Union Carbide Corporation

DOCUMENT NAME: G:\DNMS\DCCWORK\LICLTR\3719533.01

18167126

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	N		
NAME	RGibson					
DATE	06/24/98	06/ /98	9/18/98	06/ /98		06/ /98

OFFICIAL RECORD COPY

This is to acknowledge the receipt of your letter/application dated

6-5-98, and to inform you that the initial processing which includes an administrative review has been performed.

There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

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A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** **125781**.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (R)  
(6-88)

Sincerely,  
Licensing Assistance Team Leader



June 5, 1998

Ms. Pamela J. Henderson  
Nuclear Material Safety Branch 2  
Division of Nuclear Materials Safety  
U. S. NRC Region I  
475 Allendale Road  
King of Prussia, PA 19406-1416

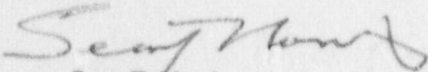
Re: License No. 37-19533-01  
Docket No. 030-17840  
Control No. 125121  
Corrected Copy Letter

This is a response to your April 27<sup>th</sup> letter and license amendment and a request for a corrected copy of the license.

The license conditions 11. A. and B. list personnel approved to use or supervise the use of the licensed materials on site. These people have not been employed by the facility since July of 1995 and need to be removed for the license conditions. Upon review of the application and document list in condition 16, I find no reference to the application dated June 29, 1995 which was signed and sent by the administrative director in charge at the time. I have included a copy of this Application for Material License for your files. This application was intended to make the changes for approved personnel and RSO. The names of George W. Klein, Joyce L. Beskitt, James D. Sun, Daniel L. Geary and Richard G. Cimino should all have been removed from the license and replaced with the name of the RSO, Sean T. Norris. As your records list Sean T. Norris as the RSO, I assume the deletion of the other names was just an oversight by the agency or the result of a miscommunication on our part.

Please send a corrected copy of the license to Mr. Tim King of UCC and also to me. Feel free to contact me if you have any questions or comments at 970-241-8701.

Sincerely,

  
Sean T. Norris  
Project Coordinator, RSO

cc: Tim King, UCC

Attachments: as stated.

# APPLICATION FOR MATERIAL LICENSE

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MRSB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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. **630-17840**

**APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:**

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY  
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS  
U S NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

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:

LICENSING ASSISTANT SECTION  
NUCLEAR MATERIALS SAFETY BRANCH  
U S NUCLEAR REGULATORY COMMISSION, REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

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

NUCLEAR MATERIALS LICENSING SECTION  
U S NUCLEAR REGULATORY COMMISSION, REGION II  
101 MARIETTA STREET NW, SUITE 2800  
ATLANTA, GA 30323-0188

**IF YOU ARE LOCATED IN:**

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

MATERIALS LICENSING SECTION  
U S NUCLEAR REGULATORY COMMISSION, REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, IL 60137-6627

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

NUCLEAR MATERIALS LICENSING SECTION  
U S NUCLEAR REGULATORY COMMISSION, REGION IV  
811 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TX 76011-8084

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

RADIOACTIVE MATERIALS SAFETY BRANCH  
U S NUCLEAR REGULATORY COMMISSION, REGION V  
1450 MARIA LANE  
WALNUT CREEK, CA 94606-5388

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

**1 THIS IS AN APPLICATION FOR (Check appropriate item)**

- A. NEW LICENSE
- B. AMENDMENT TO LICENSE NUMBER 37-19533-01
- C. RENEWAL OF LICENSE NUMBER \_\_\_\_\_

**2 NAME AND MAILING ADDRESS OF APPLICANT (include Zip code)**

Union Carbide Corporation  
Bushy Run Research Center  
6702 Mellon Road  
Export, Pennsylvania 15632-8902

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

Bushy Run Research Center  
6702 Mellon Road  
Export, Pennsylvania 15632-8902

**4 NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION**

Daniel L. Geary

TELEPHONE NUMBER  
(412) 733-5223

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 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 processed at any one time. <b>NA</b>	6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED. <b>NA</b>
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE. <b>NA</b>	8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS. <b>NA</b>
9. FACILITIES AND EQUIPMENT. <b>NA</b>	10. RADIATION SAFETY PROGRAM. <b>NA</b>
11. WASTE MANAGEMENT. <b>NA</b>	12. LICENSEE FEES (See 10 CFR 170 and Section 170.31) FEE CATEGORY <b>3L</b>   AMOUNT ENCLOSED <b>\$620.00</b>

**13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.**

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 38 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 26, 1948 (2) 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.

**CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE**

Daniel L. Geary, Administrative Director

**SIGNATURE**

*Daniel L. Geary*

**DATE**

6/29/95

**FOR NRC USE ONLY**

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

JUN 17 1995



## Bushy Run Research Center

NRC License Ammendment Application Addendum, June 22, 1995

The Bushy Run Research Center in Export Pennsylvania is currently shut down, and no further plans for operation are in place. The general staffing of the facility is also being released, including the present site RSO, Joyce Beskitt, who will no longer be employed at the facility after June 30th, 1995. The site radioactive materials license #37-19533-01 will eventually need to be terminated and the site decommissioned in accordance with NRC Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Material, ORAU NUREG/CR-5849, Manual for Conducting Radiological Surveys in Support of License Termination, ALARA, and appropriate and relevant regulatory guides.

Therefore, a new RSO is required to continue to control the radioactive sources, radiologically contaminated materials and equipment, and to regulate access and limit the potential for exposure to workers who will be engaged in both ongoing maintenance of the facility, as well as those who will be required to decontaminate the facility prior to license termination and release of the site. The new RSO will be Mr. Sean T. Norris, commencing on or before July 1, 1995.

As stated above, the facility is shut down and no further research or development involving radioactive materials will be conducted under the current license. The duties and responsibilities of the new RSO will include and may not be limited to the following:

- Control all access to radiological materials and sources, including any and all rooms, ducts or conveyance systems.
- Assure all remaining radioactive materials are transferred to or disposed of at an appropriately licensed facility
- Evaluate and issue radiation work permits and provide training to workers as necessary.
- Oversee all future characterization and decommissioning efforts either directly, or by a qualified designee, which might present radiation hazards to workers or the public
- Prepare and/or approve all Work Plans and Health and Safety Plans prior to implementation of same.

As no further operations are to be conducted, control of the remaining sources and contaminated materials and equipment by the RSO when he is not on site will be relatively easy. As all of the areas within the building are controlled via doors, all locks on doors which lead to areas of contamination or source storage areas will be secured. Two individuals will be allowed to retain keys to these locks, the RSO, and the present site manager. The site manager will only unlock a secured area in the event of emergency, and will promptly notify the RSO of the nature of the emergency and personnel making the entry. All other access will be controlled by the RSO or qualified designee, under a personnel monitoring program. It is not expected that any entry into secured areas will be required by on-site personnel, as no further operations will be conducted on the site. All future entries will be conducted under characterization and decommissioning plans currently being prepared.

Sean T. Norris, RSO  
3105 F½ Road  
Grand Junction, CO 81504-4010

Dan Geary, Site Manager  
Bushy Run Research Center  
Export, PA 15632-8902

**Sean T. Norris, Geologist**

3105 F4 Road, Grand Junction, Colorado 81504 (970) 434-5611

**Technical Specialties:**

Geology, Environmental Monitoring, Health Physics/RSO, Site Remediation, CERCLA RI/FS, RCRA Facility Assessments, Regulatory Compliance, Technical Support, Underground Storage Tank Removal and Reporting, Groundwater and Monitoring Well Installation, Landfill Assessments

**Education:**

B.S. Geology, Mesa State College, 1988  
Continuing Education Courses, Mesa State College  
40-Hour SARA Hazardous Waste Training, 1989  
8-Hour SARA Refresher Course, 1990 - 1994  
8-Hour SARA Supervisor Course, 1991, 1994  
Umetco Minerals Radiation Safety Officer Training, 10 CFR 20, 1993  
State of Utah Groundwater and Soil Sampler Certification (1992-1994)

**Professional Activities:**

Grand Junction Geological Society  
Association of Ground Water Scientists & Engineers

**Other Offices:**

Vice President, Mesa County Irrigation District, Mesa County, Colorado

**Background and Experience:**

Mr. Norris has over seven years experience related to geological and environmental consulting. He formed Norris Environmental in 1992, providing consulting services for leaking underground storage tanks, radiological and hazardous materials management and spills, project management for site remedial actions, project oversight and technical reviews. Norris Environmental has provided services for small business owners, large corporate entities, and local government agencies since founding in 1992, and has recently completed a radiological remedial action on a Nuclear Regulatory Commission (NRC) Site Decommissioning and Management Plan (SDMP) site for Union Carbide Company. Mr. Norris is currently the Project Manager and site RSO for the Elken Metals SDMP Site in Marietta, Ohio

Prior to forming Norris Environmental, Mr. Norris was employed by Versar A/E (formerly ARDX), in Grand Junction, Colorado. He performed risk assessments for several Superfund and RCRA/CERCLA sites throughout the western US. He performed numerous assessments and remedial actions for leaking underground storage tanks and related plumes. He also performed investigations for hazardous material contamination on abandoned radium processing facilities, uranium tailings remediation sites, and on structures exhibiting elevated indoor radon concentrations.

Prior to joining Versar A/E, he was an integral part in the formation of the CoWest Incineration Corporation of Denver, Colorado. He participated in the geologic feasibility and risk assessment studies related to several hazardous waste incineration sites in the western US.

*Mr. Norris's project experience includes the following:*

- Project Manager, Radiation Safety Officer (RSO), Site Health and Safety Officer (SHSO) for remedial action on a Nuclear Regulatory Commission (NRC) Site Decommissioning and Management Plan (SDMP) site for Union Carbide Company. Duties include preparation of work plans, preparation and publication of request for proposals, review of bids and contractor selection. Project management activities including cost reduction and tracking, client/contractor relations and negotiations, on-site contract supervision, preparation and review of project documentation. RSO/SHSO duties include compliance with 10 CFR 20, and 29 CFR safety regulations for site remedial activities, and regulatory relations with NRC Region III, and Washington DC Headquarters.
- Conducted remedial action for removal of uranium ore from an abandon uranium mill site in southwestern Colorado for Umetco Minerals Corporation.
- Prepared technical sections of RFP documents for Mesa County Facilities Management for the removal and characterization of underground storage tanks owned by the county. Reviewed proposals and assisted in the contractor selection for county projects.

- Prepared the Quality Assurance Plan and assisted in the preparation of the Health and Safety Plan, acted as RSO and SHSO and provided on-site project oversight for the remedial action at Elken Metals Company in Marietta, Ohio for Umetco Minerals Corporation in Grand Junction, Colorado.
- Provided technical assistance and review for UNOCAL Corporate Environmental Remediation and Technology, for property assessments on sites owned by UNOCAL.
- Performed site investigations on the Operable Unit VIII Superfund Site in Denver, Colorado. He was responsible for geologic and instrumental logging and sampling of subsurface boreholes on site and within the radioactive landfill; providing support for the drilling and construction of groundwater monitoring wells; conducting a surface and subsurface soil sampling program; participating in instrumental radiologic assessment of facilities, surface/subsurface soils, and performing data validation activities. He was responsible for decontamination of equipment, instruments, and personnel and conducted appropriate release surveys. Additionally, he compiled all exterior surface and subsurface instrumental data for presentation in map form and wrote the corresponding section of the RI report.
- Directed remedial action and closure of a 32,000 cubic yard petroleum plume, including client relations, health and safety program, site monitoring, and verification/closure sampling at the Mesa County Justice Center site in Grand Junction, Colorado.
- Planned and conducted surface and subsurface assessment of commingled mill tailings and landfill waste and groundwater on the Jarvis property for the City of Grand Junction. The project included groundwater characterization and assessment, waste and soil characteristics for CERCLA and RCRA, cost analysis for remediation alternatives and waste disposal.
- Provided consulting services to Mesa County concerning landfill waste removal at the new Mesa County Justice Center site, including waste characterization and regulatory assessment/compliance.
- Has performed oversight for and conducted UST removals and tank integrity testing for Federal and local government agencies.
- Performed field activities for background radiation levels and heavy metal concentrations in soils around the Uravan Mill Superfund site in western Colorado. He also performed decontamination and verification support activities of a proposed new county roadway through the mill site.
- Has performed radiation monitoring activities related to assessments of properties contaminated with uranium mill tailings within the DOE Uranium Mill Tailings Remedial Action Project in Grand Junction, Colorado.

**LICENSE FEE REQUIREMENTS**

ATTN: BRENDA BROWN (125781)  
U.S. Nuclear Regulatory Commission  
License Fee and Accounts Receivable Branch  
P. O. Box 954574  
St. Louis, MO 63195-4514

ATTN: SEAN T. NORRIS  
UNION CARBIDE CORPORATION  
778 23 ROAD  
GRAND JUNCTION, CO 81505

**TYPE OF ACTION**

- NEW LICENSE
- RENEWAL OF LICENSE
- AMENDMENT TO LICENSE

REQUESTED DATE

06/05/1998

LICENSE NUMBER

37-19533-01

CONTROL NUMBER

125781

**I. APPLICATION FEE DUE**

Your request for a licensing action is subject to the fee(s) in the category(ies) noted below in accordance with Section 170.31 of 10 CFR Part 170. Payment of the fee is required prior to the issuance of the license, renewal, or amendment.

FEE CATEGORY	APPLICATION	RENEWAL	AMENDMENT
3M	\$	\$	\$ 640.00
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$

FEE(S) DUE	\$	640.00
PAYMENT RECEIVED	\$	0.00
AMOUNT DUE	\$	640.00

**II. FEE NOT REQUIRED**

- Check Number Enclosed is your check which accompanied your request. The fee is not required because:
- Check Number We received your check listed in payment of the fee.
- Date of Request The Licensing staff has informed us that your request is to be considered as a continuation of the request listed.
- Control Number
- Date of Request Your request was combined, prior to review, with the request listed.
- Control Number

**III. CHECK RETURNED**

- Check Number Enclosed is your check which was returned to us by the bank for:
- INSUFFICIENT FUNDS
- ACCOUNT CLOSED
- OTHER

MAIL THE REPLACEMENT CHECK TO THE ADDRESS LISTED AT THE TOP OF THIS FORM AND REFER TO THE ABOVE CONTROL NUMBER.

**IV. LICENSE ISSUED WITHOUT THE REQUIRED FEE**

- License Number The listed license was issued without the required fee being collected. The fee required is noted in Section I of this form.
- Amendment Number
- Date Issued

The scope of your licensed program was increased. Therefore, your request is subject to the application fee(s) noted in Section 1 of this form. Refer to Section 170.31 and Footnote 1(d)(2).

Because of the urgency of your request, the license was issued without remittance of the prescribed fee noted in Section 1 of this form.

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

SIGNATURE -- LICENSE FEE ANALYST

BRENDA BROWN 301-415-6055

LFDCB

BB

6/22/98

LFDCB

Distribution:  
OC/DAF/LFARB S/F  
(LF-3.2.7)  
OC/DAF/LFARB RF  
OC/DAF R/F

Pending Cy

cc: REG I

DATE

06/22/1998

