



**CAMECO RESOURCES**

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Cheyenne, WY  
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August 3, 2010

Mr. Larry Camper, Director  
Division of Waste Management and Environmental Protection  
Office of Federal and State Materials and  
Environmental Management Programs  
U.S. Nuclear Regulatory Commission  
Two White Flint North, Mailstop T8F5  
11545 Rockville Pike  
Rockville, MD 20852

RE: Request for License Amendment  
Docket No. 40-8943  
License No. SUA-1534

Dear Mr. Camper:

Crow Butte Resources, Inc. (CBR) is submitting this request for an amendment to Source Materials License SUA-1534 for the development of additional uranium in-situ leach mining resources. The proposed development area is referred to as the Three Crow Expansion Area and will be used as a satellite facility to the main CBR plant.

Enclosed with this letter is NRC Form 313, with additional information attached. In addition, CBR is sending three copies of the amendment application in separate boxes with copies of this letter.

If you or your staff has any questions regarding the CBR application please contact me at 307.316.7595.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Young'.

Thomas P. Young,  
Vice President, Operations

Cc: Jim Stokey

John P. Schmuck

CBR file w/o attachment

CR file w/ attachment

FSME21

(3-2009)  
10 CFR 30, 32, 33,  
34, 35, 36, 39, and 40

**APPLICATION FOR MATERIALS LICENSE**

Estimated burden per response to comply with this mandatory collection request: 4.3 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. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), 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.

**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.**

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

OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS  
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:**

**IF YOU ARE LOCATED IN:**

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM  
DIVISION OF NUCLEAR MATERIALS SAFETY  
U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

**IF YOU ARE LOCATED IN:**

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

MATERIALS LICENSING BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
612 E. LAMAR BOULEVARD, SUITE 400  
ARLINGTON, TX 76011-4125

**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 SUA-1534

C. RENEWAL OF LICENSE NUMBER \_\_\_\_\_

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

**Crow Butte Resources, Inc.**  
**2020 Carey Avenue, Suite 600**  
**Cheyenne, WY 82001**

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

**Crow Butte Resources, Inc.**  
**Dawes County Nebraska**  
**86 Crow Butte Road**  
**Crawford, NE 69339**

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

**Thomas P. Young**

TELEPHONE NUMBER

**(307) 316-7595**

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 possessed at any one time.

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

9. FACILITIES AND EQUIPMENT.

11. WASTE MANAGEMENT.

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

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

10. RADIATION SAFETY PROGRAM.

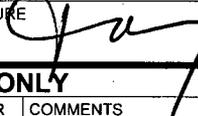
12. LICENSE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY	<b>2.A.(2)</b>	AMOUNT ENCLOSED	<b>\$ 0.00</b>
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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, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 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	SIGNATURE	DATE
<b>Thomas P. Young, Vice President, Operations</b>		<b>08/03/2010</b>

**FOR NRC USE ONLY**

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

APPLICATION FOR AMENDMENT

SOUCE MATERIALS LICENSE SUA-1534  
DOCKET NUMBER 40-8943

Responses to Items 5 through 11, NRC Form 313

Licensee: Crow Butte Resources, Inc.  
2020 Carey Avenue, Suite 600  
Cheyenne, Wyoming 82001

5. RADIOACTIVE MATERIAL:

a) Element and Mass Number:

Uranium (natural uranium, or Unat; a mixture of U<sub>238</sub>, U<sub>234</sub>, and U<sub>235</sub>)

b) Chemical and/or physical form:

Chemical form is U<sub>3</sub>O<sub>8</sub>; uranium product is termed yellowcake and exists as a solution (0 to 50 grams/liter), a slurry (1% to 50% U), or dried product (50% to 80% U).

c) Maximum amount which will be possessed at any one time:

Crow Butte Resources, Inc. requests unlimited possession amount.

6. PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED:

The licensed material will be used as fuel for the generation of electricity by nuclear power plants.

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

This information is provided in detail in Section 5.0 of the Crow Butte Resources, Inc. "Application for Amendment of USNRC Source Materials License SUA-1534 Three Crow Expansion Area Technical Report Volume I" (Three Crow Technical Report).

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS:

This information is provided in detail in Section 5.0 of the Three Crow Technical Report.

9. FACILITIES AND EQUIPMENT:

This information is provided in detail in Section 3.0 of the Three Crow Technical Report.

10. RADIATION SAFETY PROGRAM:

This information is provided in detail in Section 5.0 of the Three Crow Technical Report.

11. WASTE MANAGEMENT:

This information is provided in detail in Section 5.0 of the Three Crow Technical Report.