

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 999-90003/93032(DRSS)

Docket Nos. 040-07603 (Terminated)
040-08035 (Terminated)

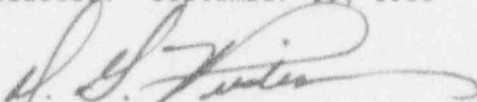
License Nos. SMC-0907 (Terminated)
SUB-1022 (Terminated)

Licensee: Commercial Discount Corporation
105 West Adams Street
Chicago, IL 60603
and
Cotter Corporation
P.O. Box 1000
Roswell, New Mexico

Inspection At: 9200 Latty Avenue
Hazelwood, Missouri
Currently owned by: E. Dean Jarboe


Inspection Conducted: September 16, 1993

Inspector:


D. G. Wiedeman
Senior Health Physicist

3/23/94
Date

Approved:


G. M. McCann, Chief
Fuel Facilities and Decommissioning
Section

3/23/94
Date

Inspection Summary

Inspection on September 16, 1993 (Report No. 999-90003/93032(DRSS))

Areas Inspected: This was a special inspection to review the former licensees activities and determine if the facilities were adequately decontaminated prior to terminating the licenses. The inspector conducted independent radiation surveys in the general areas and properties that former licensed activities took place. This inspection was part of an NRC project which evaluated approximately 17,000 retired licenses. An NRC contractor, Oak Ridge National Laboratories (ORNL), performed the evaluation. On the basis of the information in the retired license file, such as type and quantity of authorized materials and lack of adequate decontamination documentation, ORNL concluded that these facilities have a potential for residual contamination.

Results: The NRC inspector determined that the facility located at 9200 Latty Avenue, Hazelwood, Missouri, contains significant quantities of residual contamination. This site is currently being characterized and remediated by the U.S. Department of Energy's Formerly Utilized Sites Remedial Action Program (FUSRAP) with oversight by the U.S. Environmental Protection Agency.

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DETAILS

1. Persons Contacted

- *Gerald Palau, Project Manager, FUSRAP, Bechtel National, Inc.
- *Gary McNutt, Radiological Health Analyst, Missouri State Department of Health
- *Daniel Tschirgi, P.E., Environmental Engineer, Hazardous Waste Program, State of Missouri, Department of Natural Resources
- #David Adler, Site Manager, U.S. Department of Energy
- Charles Arnold, Environmental Specialist, Missouri State Department of Health, Bureau of Environmental Epidemiology
- @E. Dean Jarboe, President, Futura Coatings, Inc.

- *Attended the exit meeting conducted on September 16, 1993.
- #Telephone conversation conducted on March 10, 1994, regarding the inspection findings.
- @Telephone conversation conducted on October 7, 1993, regarding the inspection findings.

2. Background

Between 1943 and 1946, uranium bearing ores were processed by Mallinckrodt Chemical Company of St. Louis, Missouri, under contracts with the Atomic Energy Commission (AEC) and its predecessor, the Manhattan Engineering District (MED). Following termination of these contracts, process residues from these operations were stored at a site adjacent to the St. Louis Airport, then known as 50 Brown Road, Roberts, Missouri, now known as 50-52 McDonnell Boulevard, St. Louis, Missouri. These wastes contained residual quantities of uranium-234, uranium-235, uranium-238, thorium-230, thorium-232 and radium-226.

On March 7, 1962, the AEC issued Invitation No. AT-(23-2)-46, for the sale of the residues stored at a 21 acre tract north of the St. Louis Municipal Airport (50 Brown Road, Robertson, Missouri), Attachment A. The invitation stipulated that the successful bidder must procure a valid AEC source material license prior to taking possession. In a letter dated April 12, 1962, the AEC accepted Contemporary Metals' bid of \$126,500.00 and advised them that permission to proceed with removal of the residues would be issued after they obtain an AEC license, Attachment B. AEC Source Material License No. SMB-0654 was issued to Contemporary Metals Corporation, San Gabriel, California, on September 25, 1962, Attachment C. This license was terminated on February 14, 1966, when License No. SMA-0862 was issued to their subsidiary Continental Mining & Milling Company, Chicago, Illinois. License No. SMB-0654 authorized possession of 125,000 tons of uranium and thorium residues stored at 50 Brown Road, and the licensee's processing facility at 7210 Polson Lane, Hazelwood, Missouri.

The licensee requested renewal of their license on February 4, 1966. In their renewal application they requested a name change from Contemporary Metals to Continental Mining and Milling Company and a new location of use. The address was changed from 7210 Polson Lane to 9200 Latty Avenue, Hazelwood, Missouri, along with the requested name change. Documents in the files indicated that no material had been used or processed at the Polson Lane address. On February 14, 1966, License No. SMA-0862 was issued, authorizing the removal of stockpile residues from 50 Brown Road, and storage only at 9200 Latty Avenue, Hazelwood, Missouri, Attachment D.

During the next several months, Continental Mining and Milling Co. started moving the material to its proposed processing site at 9200 Latty Avenue. Due to financial problems in late 1966, Continental Mining and Milling Co. went into receivership and Commercial Discount Corporation of Chicago, Illinois took possession of its assets, including the Latty Avenue property and the uranium residues. Source Material License No. SMC-0907 was issued to Commercial Discount Corporation on December 29, 1966, authorizing storage of 125,000 tons of uranium and thorium residues at 9200 Latty Avenue, Hazelwood, Missouri, Attachment E. On June 28, 1967 the license was amended to allow drying of the source material prior to shipping it to Cotter Corporation, Canon City, Colorado. It appears that this was the only licensed activity that took place at the Latty Avenue address. In December 1969, the remaining residues at Latty Avenue were sold to Cotter Corporation.

Source Material License No. SUB-1022 was issued to Cotter Corporation on December 29, 1969, for possession and use of these materials. In August 1970, Cotter Corporation began drying and shipping the remaining residues to their Colorado mill at a rate of approximately 400 tons per day. This operation was performed for Cotter by B&K Construction Company of St. Louis, Missouri. By November 1970, most of the residues had been shipped with the exception of 10,000 tons of Colorado raffinate and 8,700 tons of leached barium sulphate raffinates. There was no further activity at the Latty Avenue site until July 1973 when the remaining Colorado raffinate was shipped to Canon City.

During an April 1974 NRC Region III inspection of the Latty Avenue site, it was indicated that leached barium sulphate raffinates, containing 0.05 to 0.1% uranium, had been diluted with about 39,000 tons of earth excavated during decontamination of the Latty Avenue site, and disposed of at the West Lake Landfill, Bridgeton, Missouri. In May 1974, Cotter Corporation submitted a request to terminate their license. Decontamination data was provided indicating that the Latty Avenue site had been decontaminated to levels acceptable for unrestricted use. The termination request also included an affidavit certifying that all source material had been removed from the site. The AEC did not perform a confirmatory radiation survey of the property; and in November 1974, Source Material License No. SUB-1022 was terminated.

Local media interest in August 1976 regarding the disposal of uranium residues at the West Lake Landfill, prompted the NRC to conduct surveys at Latty Avenue to evaluate the decontamination effort by Cotter Corporation. The residual contamination levels found exceeded the NRC criteria for release of the site for unrestricted use. The NRC, in an attempt to further define the contamination at the site, contracted with Oak Ridge National Laboratories (ORNL) to perform a detailed radiological survey of the property, including the buildings. The NRC also concluded that about 7 tons of uranium oxide (U_3O_8), contained in 8,700 tons of leached barium sulfate residues had been mixed with about 39,000 tons of soil from the Latty Avenue site, and the entire volume was disposed of at the West Lake Landfill by Cotter Corporation.

During a site visit to the Latty Avenue property in June 1977, ORNL and NRC personnel discovered that three and one half acres of the property, on which the four buildings were located, had recently been purchased by Mr. E. Dean Jarboe. At that time, it was Mr. Jarboe's intentions to refurbish the buildings and build a paint/chemical plant.

The ORNL survey findings at the Latty Avenue property revealed radiation levels in excess of the NRC criteria for unrestricted use. Radon levels in two of the buildings were in excess of accepted guidelines established at that time by the Surgeon General.

In 1978, Mr. Jarboe contacted the NRC licensing staff about decontamination of the buildings and the three and one half acres of property. The NRC staff provided Mr. Jarboe with the Commission's guidance for the decontamination of buildings and equipment prior to the release for unrestricted use. Decontamination started during the summer of 1978 and was completed in August 1979. During this period, two of the original four buildings were demolished. In August 1979, the two remaining buildings and the surrounding three and one half acres were released for unrestricted use. The contaminated soil removed during the decontamination effort was consolidated in a pile centered in the eastern portion of the property. Attachment F of NRC Report No. 999-90003/93030(DRSS) contains photographs of the pile of contaminated soil. The Latty Avenue site remained in this state until 1984 when Congress directed the U. S. Department of Energy (DOE) to conduct a decontamination research and development project at several sites throughout the nation, including the Latty Avenue site, vicinity properties, and the 50 Brown Road site in St. Louis, Missouri. All three of these sites are part of the DOE characterization and decontamination effort.

3. Facility Status and Inspection Findings

- a. The former licensed site of Contemporary Metals Corporation (License No. SMB-0654) located at 7210 Polson Lane, Hazelwood, Missouri, is occupied by Unipar, Incorporated. Review of historical documents in the license files and independent radiation measurements indicates that licensed materials were never used, processed, or stored at this site. The NRC

inspector's direct radiation measurements did not identify any radiation levels above natural background. See NRC Inspection Report No. 999-90003/93030(DRSS) for survey results.

- b. The former licensed site of Contemporary Metals Corporation and Continental Mining & Milling Company located at 50 Brown Road, Robertson, Missouri (now known as 50-52 McDonnell Boulevard, St. Louis, Missouri), is a fenced vacant lot with no homes near the site. This site still contains significant quantities of residual contamination as a result of AEC licensed activities. See NRC Inspection Report No. 999-90003/93030(DRSS) (Attachment H) for photographs of the site. The property owner is the City of St. Louis, Airport Authority; however, in July 1993 access control was returned from U.S. DOE to the City of St. Louis, Airport Authority. Site characterization and remediation of the residual contamination was delegated to the DOE pursuant to the Energy and Water Appropriations Act (Public Law 98-50, 98-360) as directed by Congress. In 1989, the U. S. Environmental Protection Agency added this site to it's National Priorities List (NPL) under their Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).
- c. Currently, the former licensed site of Contemporary Metals Corporation, Continental Mining & Milling, Commercial Discount Corporation, and Cotter Corporation located at 9200 Latty Avenue, Hazelwood, Missouri is owned by Mr. E. Dean Jarboe, owner of Jarboe Realty and Investment Company, Inc., and Futura Coatings, Inc. The site has been divided into two areas. The area with residual contamination is fenced and access control is maintained by DOE and their contractors. The Futura Coatings, Inc., site was remediated in 1978 and in August 1979 the two remaining buildings and land were released for unrestricted use (see Attachment I of NRC Inspection Report No. 999-90003/93030(DRSS) for photographs of the site). Site characterization and remediation of the residual contamination was delegated to the DOE pursuant to the Energy and Water Appropriations Act as directed by Congress. In 1989, the U. S. Environmental Protection Agency added this site to it's National Priorities List (NPL) under their Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).
- d. Currently, the site where radioactive wastes were disposed of (West Lake Landfill) by Cotter Corporation during the period July-October 1973, is owned by Laidlaw and Rockroad, Inc. This site is a 200 acre tract on the outskirts of the city of St. Louis. A concrete plant is operating on site, as well as a 22 acre demolition landfill and a 52 acre sanitary landfill. The property is on the border of the Missouri River Valley about 1.9 km (1.2 miles) from the river.

This site contains significant quantities of residual contamination which was the result of inappropriate disposal of licensed material. This site is currently listed on the NRC Site Decommissioning Management Plan (SDMP); however, the U.S. Environmental Protection Agency (EPA), Region VII office, has the lead on the remediation of this site under their CERCLA program. EPA has identified four potentially responsible parties for the remediation of this site. These are: Cotter Corporation; Laidlaw Waste Systems; Rock Road Industries; and the U. S. Department of Energy.

4. Independent Measurements

The NRC inspector conducted radiologic surveys, with assistance from a representative of the Missouri Department of Health, at 7210 Polson Lane, Hazelwood, Missouri, and along the roadway and front gate at 50 Brown Road, now known as 50-52 McDonnell Boulevard, St. Louis, Missouri. The inspector's surveys of the Polson Lane site and adjacent property did not identify any radiation levels above natural background. Radiation levels at the front gate of the 50 Brown Road site were four times above natural background (60 microrentgens per hour [gamma] ($\mu\text{R/h}$) {15 nanocoulomb per kilogram per hour (nC/kg/h)} and the road side was approximately six times above background (200-300 counts per minute (cpm) beta+gamma).

Background radiation measurements taken in the St. Louis area with a Victoreen, Model 190 showed 40-50 cpm and the Ludlum Model 19 microR meter indicated 7-15 $\mu\text{R/h}$ {1.5-3.7 nC/kg/h}. Response check and constancy checks were performed on both survey instruments prior to the surveys. All portable survey instruments responded as expected. Attachment G of NRC Inspection Report No. 999-90003/93030(DRSS) shows locations surveyed and measurement results.

5. Exit Meeting

The NRC inspector met with the individuals identified in Section 1 of this report and summarized the findings of the inspection. During the exit meetings with the various participants, none of the participants indicated that the inspection findings or data provided to the inspector were considered proprietary.

Attachments:

- A. Government Property Sale announcement dtd 3/7/62
- B. Letter to Contemporary Metals Corp. dtd 4/12/62
- C. AEC License No. SMB-0654 dtd 9/25/62
- D. AEC License No. SMA-0862 dtd 2/14/66
- E. AEC License No. SMC-0907 dated 12/29/66

Sales

GOVERNMENT PROPERTY

Page No. 1 of 11 Pages of
Invitation No. AT-(23-2)-46
Dated March 7, 1962

Sealed bids in triplicate subject to the terms and conditions set forth herein, for the purchase and removal of the Government-owned property listed in this Invitation, will be received until the time, date, and at the place indicated below, and then publically opened.

Time of Opening - 2:00 p.m. EST
Date of Opening - April 10, 1962
Place of Opening - Atomic Energy Commission Office
Weldon Spring, Missouri
Bid Deposit of \$2,000 is required

Inspection Invited between 8:00 a.m. and 4:00 p.m.
Arrange with H. R. Osterwald or C. H. Fisher,
Telephone St. Louis WY-3-9400
Issued by St. Louis Area Office
U. S. Atomic Energy Commission
Address: Box 470, St. Charles, Missouri

Property located in open storage on a 21-acre tract at Robertson, Missouri, immediately north of St. Louis Municipal Airport and east of McDonnell Aircraft Corporation Plant on Brown Road in St. Louis County. Residues stored are shown on attached drawing subject, "Topographical Location of Plant Facilities for Mallinckrodt Chemical Works," MCW Drawing No. 6-1403-19.





IN REPLY REFER TO:
G:HR0

UNITED STATES
ATOMIC ENERGY COMMISSION

Post Office Box 170
St. Charles, Missouri

APR 12 1962

Mr. Clemons M. Roark, President
Contemporary Metals Corporation
620 North Denton Way
Los Angeles 26, California

Subject: ACCEPTANCE OF BID UNDER INVITATION NO. AT-(23-2)-46

Dear Mr. Roark:

Your bid dated April 9, 1962, to purchase and remove Government-owned property as listed in Invitation No. AT-(23-2)-46 dated March 7, 1962, in the amount of \$126,500, is hereby accepted by the Atomic Energy Commission.

A Notice to Proceed with removal of the residues will be issued when you have obtained a license to receive, process, use or transfer the source material contained in the residues from the Director, Division of Licensing and Regulation, U. S. Atomic Energy Commission, Washington 25, D. C., and when you have furnished a performance bond in the amount of \$50,000.

Since other Commission contractors may be working at the site during your removal operations, coordination with their work will be required.

Very truly yours,

F. H. Helcher
Area Manager

CERTIFIED MAIL, RETURN RECEIPT REQUESTED



ATTACHMENT B
PAGE 1 of 1 PAGES

UNITED STATES
ATOMIC ENERGY COMMISSION

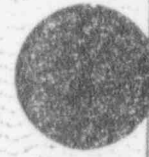
SOURCE MATERIAL LICENSE

Pursuant to the Atomic Energy Act of 1954, and Title 10, Code of Federal Regulations, Chapter 1, Part 40, "Licensing of Source Material," and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, possess and import the source material designated below; to use such material for the purpose(s) and at the place(s) designated below; and to deliver or transfer such material to persons authorized to receive it in accordance with the regulations in said Part. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954 and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission, now or hereafter in effect, including Title 10, Code of Federal Regulations, Chapter 1, Part 20, "Standards for Protection Against Radiation," and to any conditions specified below.

Licensee		3. License No. <i>SMB</i> SM-654
1. Name	Contemporary Metals Corporation	4. Expiration Date January 1, 1964
2. Address	1039 South San Gabriel Boulevard San Gabriel, California	5. Docket No. 40-6811
6. Source Material Uranium and thorium.	7. Maximum quantity of source material which licensee may possess at any one time under this license 125,000 tons of residues presently stockpiled at Brown Road, Robertson, Missouri.	

CONDITIONS

8. Authorized use (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)
For use in accordance with the procedures described in the licensee's application dated May 17, 1962, and supplements dated May 28, July 19 & 20, August 28 & 31, 1962.
9. Authorized places of use: Residue stockpile at Brown Road, Robertson, Missouri, and the licensee's processing facility at 7210 Polson Lane, Hazelwood, Missouri.
10. Process operations shall begin only at such time as the licensee has completed the installation of all equipment and facilities as described in the application and supplements thereto. However, removal and preparatory operations at the residue stockpile site may begin at such time as the equipment and facilities described in the application and supplements thereto for this operation have been completed.



1-1 C



SOURCE MATERIAL LICENSE

Supplementary Sheet

License Number DM-654

- 11. Mr. Alan B. Denning shall serve as the Director of the radiological safety program described in the application and supplements thereto specified in Item 9 of this license.
- 12. The St. Louis Testing Laboratory shall perform the quality control services as described in the application and supplements thereto specified in Item 8 of this license.
- 13. The licensee shall submit after the first three (3) months of operations, a report containing the results of the required radiological surveys.
- 14. The licensee is hereby exempt from the requirements of Section 20.203(e)(2) and 20.203(f)(2), 10 CFR 20, for areas and containers within the plant, provided all entrances to the plant are conspicuously posted in accordance with Section 20.203(e)(2) and with the words, "Any area or container within this mill may contain radioactive material".

For the U. S. Atomic Energy Commission

by _____

Division of Licensing and Regulation
Washington 25, D. C.

Date _____

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UNITED STATES
ATOMIC ENERGY COMMISSION

SOURCE MATERIAL LICENSE COPY

Pursuant to the Atomic Energy Act of 1954, and Title 10, Code of Federal Regulations, Chapter 1, Part 40, "Licensing of Source Material," and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, possess and import the source material designated below; to use such material for the purpose(s) and at the place(s) designated below; and to deliver or transfer such material to persons authorized to receive it in accordance with the regulations in said Part. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954 and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission, now or hereafter in effect, including Title 10, Code of Federal Regulations, Chapter 1, Part 20, "Standards for Protection Against Radiation," and to any conditions specified below.

Licensee		3. License No. SMA-862
1. Name	Continental Mining & Milling Co.	4. Expiration Date February 28, 1969
2. Address	208 South LaSalle Street Chicago, Illinois 60604	5. Docket No. 40-6811
6. Source Material Uranium and thorium.	7. Maximum quantity of source material which licensee may possess at any one time under this license 125,000 tons of residues presently stockpiled at 50 Brown Road, Robertson, Missouri	

CONDITIONS

- 8. Authorized use (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)
Removal of stockpile residues from 50 Brown Road, Robertson, Missouri, and storage only at the licensee's facilities located at 9200 Latty Avenue, Hazelwood, Missouri, in accordance with the procedures described in the licensee's application dated February 4, 1966, and supplements dated February 7 and February 8, 1966.
- 9. Transfer of source material to the licensee's Hazelwood, Missouri, site is not authorized until fencing and lock gates have been installed in accordance with the licensee's submittal dated February 8, 1966.

OK
2/14/66

For the U. S. ATOMIC ENERGY COMMISSION

Date of issuance _____

U. S. GOVERNMENT PRINTING OFFICE: 1962 O - 632965 Don F. Harmon
Division of Materials Licensing

COPY



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Form AE-410
(2-59)

UNITED STATES
ATOMIC ENERGY COMMISSION

SOURCE MATERIAL LICENSE

Pursuant to the Atomic Energy Act of 1954, and Title 10, Code of Federal Regulations, Chapter 1, Part 40, "Licensing of Source Material," and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, possess and import the source material designated below; to use such material for the purpose(s) and at the place(s) designated below; and to deliver or transfer such material to persons authorized to receive it in accordance with the regulations in said Part. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954 and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission, now or hereafter in effect, including Title 10, Code of Federal Regulations, Chapter 1, Part 20, "Standards for Protection Against Radiation," and to any conditions specified below.

Licensee		3. License No.
1. Name	Commercial Discount Corporation	SMC-907
2. Address	105 West Adams Street Chicago, Illinois 60603	4. Expiration Date
		December 31, 1969
		5. Docket No.
		40-7603
6. Source Material	7. Maximum quantity of source material which licensee may possess at any one time under this license	
Uranium and Thorium	125,000 tons of residues containing source material.	

CONDITIONS

8. Authorized use (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)

For storage only in accordance with the procedures described in the licensee's application dated December 14, 1966.

9. Authorized place of storage: 9200 Latty Avenue
Hazelwood, Missouri

14M
12/29/66
DA
12/29/66

For the U. S. ATOMIC ENERGY COMMISSION

Date of issuance 12/29/66

U. S. GOVERNMENT PRINTING OFFICE: 1962 O - 612985

Don F. Harmon
Division of Materials Licensing

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