



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**

WASHINGTON, D.C. 20555-0001

March 3, 2000

Mr. Ben Baker  
 Project Manager  
 The Dow Chemical Company  
 1261 Building  
 Midland, Michigan 48667

**SUBJECT: AMENDMENT OF THE DOW CHEMICAL COMPANY LICENSE TO APPROVE THE REMOVAL OF THE MIDLAND, MICHIGAN, SITE FROM THE LICENSE (TAC# L60463)**

Dear Mr. Baker:

In accordance with your application dated August 20, 1997, and pursuant to Part 40 to Title 10 of the Code of Federal Regulations, Materials License STB-527, is hereby amended to remove the Midland, Michigan, site from Dow Chemical Company's (DOW's) license.

The Nuclear Regulatory Commission approved Dow's decommissioning plan (DP) under a license amendment on July 19, 1996, based on a determination that the DP was compatible with the criteria in the Site Decommissioning Management Plan Action Plan of April 16, 1992, (57 FR 13389). The license amendment is documented in a Safety Evaluation Report and an Environmental Assessment. A notice of Environmental Assessment, Finding of No Significant Impact (FONSI) and Opportunity for Hearing was published in the Federal Register (FR) (61 FR 37772) on July 19, 1996, in connection with the license amendment approving the DP.

Another license amendment was issued on July 21, 1997, to approve the decommissioning criteria and the final survey plan for decommissioning. This license amendment is also documented in a Safety Evaluation Report and an Environmental Assessment. A notice of Environmental Assessment, FONSI and Opportunity for Hearing was published in the FR (62 FR 37081) on July 10, 1997, in connection with the license amendment approving the decommissioning criteria and the final survey plan.

Based on the decontamination performed by Dow at the Midland site, a final confirmatory survey of the site was performed on May 13, 1997, by the NRC's Region III staff. As documented in the NRC Report No. 040-00017/97001(DNMS) dated June 4, 1997, the NRC has determined that Dow Chemical at the Midland site does not have residual radioactive material in excess of the NRC's unrestricted release guidelines.

Consistent with 10 CFR 40.42(k), the NRC has determined that:

- (1) Source material has been properly disposed;
- (2) Radioactive contamination has been remediated to satisfy the approved decommissioning criteria;
- (3) A radiological survey has been performed which demonstrates that the Midland site is suitable for unrestricted release in accordance with 10 CFR 20.1401(b)(2);
- (4) NRC Form 314 (Certificate of Disposition of Materials) has been received.

DFO 3

The NRC staff has concluded that this license amendment concerns administrative changes and meets the requirements, under the categorical exclusion in accordance with 10 CFR 51.22(c)(11), that: (i) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (ii) there is no significant increase in individual or cumulative occupational radiation exposure; (iii) there is no significant construction impact; and (iv) there is no significant increase in the potential for, or consequences from radiological accidents. Therefore, neither an environmental assessment nor an environmental impact statement is required.

Accordingly, Conditions 8.A., 9, 10, and 12.A. have been revised and read as follows:

- 8.A. All residual contamination which currently exists at Dow's Bay City, MI site.
- 9. Authorized Use: Licensed material will be possessed and used during site activities leading to its removal from the Bay City site in accordance with the statements, representations, and procedures contained in the amendment request dated October 12, 1995, and the supplemental information submitted by letters dated December 6, 1995, March 11, 1996, and May 24, 1996.
- 10. Authorized Place of Use: The existing Dow site in Bay City, MI.
- 12.A. The Dow Chemical Company will conduct the final survey of the Bay City site in accordance with the final survey plans submitted by letters dated October 12, 1993, December 6, 1995, March 11, 1996, and March 31, 1997.

All other conditions of this license will remain the same. Please review the enclosed revised Materials License STB-527. If you have any questions, please contact Sam Nalluswami of my staff, at (301) 415-6694.

Sincerely,  
Original signed by:  
Larry W. Camper, Chief  
Decommissioning Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Docket 040-00017  
License STB-527  
Enclosure: Materials License STB-527  
cc: D. Minnaar, MDEQ

**This document should  be made available to the PUBLIC SMN 2/14/00**

Ticket No.: DCB-0006

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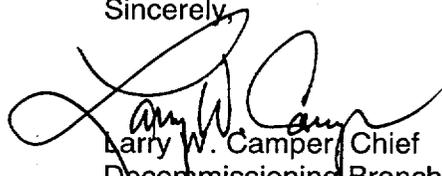
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Docket 040-00017  
License STB-527

Enclosure: Materials License STB-527

cc: D. Minnaar, MDEQ

MATERIALS LICENSE

Amendment No. 8

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

1.	The Dow Chemical Co.	3. License Number	STB-527
2.	1261 Building Midland, MI 48667	4. Expiration Date	March 31, 1978
		5. Docket or Reference No.	040-00017

is amended in its entirety to read as follows:

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
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A. Thorium

A. Contaminated soil, sludge, sediment, trash, building rubble, structures, and any other contaminated material.

A. All residual contamination which currently exists at Dow's Bay City, MI site.

CONDITIONS

- 9. Authorized Use: Licensed material shall be possessed and used during site activities leading to its removal from the Bay City site in accordance with the statements, representations, and procedures contained in the amendment request dated October 12, 1995; and the supplemental information submitted by letters dated December 6, 1995; March 11, 1996; and May 24, 1996.
- 10. Authorized Place of Use: The existing Dow site in Bay City, MI.
- 11. The Radiation Safety Officer for this license is Kenneth Baker.

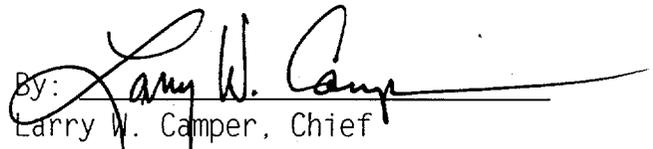
**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number	STB-527
Docket or Reference Number	Amendment No. 8 040-00017

- 12.A. The Dow Chemical Company shall conduct the final survey of the Bay City site in accordance with the final survey plans submitted by letters dated October 12, 1993; December 6, 1995; March 11, 1996; and March 31, 1997.
- 12.B. The Dow Chemical Company shall use the release criteria for surfaces and soil established in submittal of March 11, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: March 3, 2000

By:   
Larry W. Camper, Chief  
Decommissioning Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

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NAME	SNalluswami/cm	JCopeland	RNelson	BJorgensen	S. Treby JLiberman	Camper
DATE	2/14/00	1/100	2/11/00	2/22/00	2/12/00	3/3/00

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Delete file after distribution: Yes \_\_\_ No \_\_\_

B. Baker

2

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Original signed by:  
 Larry C. Camper, Chief  
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 Division of Waste Management  
 Office of Nuclear Material Safety  
 and Safeguards

Docket 040-00017  
License STB-527

Enclosure: Materials License STB-527

cc: D. Minnaar, MDEQ

This document should  should not  be made available to the PUBLIC *Sam N. 2/14/00*

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DATE	2/14/00	/ /00	/ /00	/ /00	/ /00	/ /00

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**From:** Bruce Jorgensen  
**To:** Sam Nalluswami  
**Date:** Tue, Feb 22, 2000 1:18 PM  
**Subject:** Re: DOW - REMOVAL OF MIDLAND SITE FROM THE LICENSE

Sam - only a couple of minor editorial matters, which I've highlighted by bold and underlining on the attached.

With or without the minor changes, I concur in the action proposed.

>>> Sam Nalluswami 02/22 9:54 AM >>>  
Bruce:

The e-mail was down so far and hence the delay in sending you the letter to Dow Chemicals regarding the removal of the Midland site from Dow's license. Myself, RNelson, and STreby/OGC have concurred on the letter. Please review and provide your input/concurrence.

Any questions? Please call me. Thanks. Sam N.

## DCB TICKETS 2000

Ticket No.

Today's Date

Original Due Date

Extension Date

Section/Lead

Description

Completion Date

40-17



The Dow Chemical Company  
Midland, Michigan 48667

MICHIGAN OPERATIONS  
August 20, 1997

Materials Licensing Section  
U.S. Nuclear Regulatory Commission, Region III  
801 Warrenville Road  
Lisle, IL 60532-4351

Enclosed please find a copy of an August 7, 1997 letter from Mr. John W. N. Hickey of the NRC to Mr. Larry Giebelhaus of The Dow Chemical Company requesting submission of NRC form 314 to Region III.

Form 314 is also enclosed to fulfill this request.

Respectfully,

Larry P. Giebelhaus, Project Manager  
Dow Chemical Company—Michigan Operations  
1261 Building  
Midland, MI 48667

Enclosures (2)

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AUG 22 1997



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 7, 1997

Mr. Larry Giebelhaus  
Project Manager  
The Dow Chemical Company  
1261 Building  
Midland, Michigan 48667

SUBJECT: REQUEST FOR APPROVAL TO BACK-FILL MIDLAND EXCAVATION

Dear Mr. Giebelhaus:

This refers to your letter of July 22, 1997, to the U.S. Nuclear Regulatory Commission, requesting approval to back-fill the excavation left at Dow's Midland site after the removal of thorium-contaminated material. After reviewing your final surveys, and NRC Region III's report of confirmatory survey and inspection dated June 4, 1997, the staff concludes that the residual thorium-contaminated soil at the Midland site has been remediated in accordance with the NRC approved decommissioning plans. Based on the Environmental Assessment for the approval of the final survey and release criteria, sent to you by letter dated July 21, 1997, and the above referenced information, further remediation at the Midland site is not required and the excavation may be closed.

Please be advised that the Midland site will remain under license until NRC form 314 (enclosed) is completed and submitted to NRC, and that the 30-day opportunity for hearing, for the license amendment approving the decommissioning criteria and final survey plan, is active until August 9, 1997. NRC will inspect the Midland site after the excavation has been filled.

If you have any questions, please contact Jack Parrott, NRC project manager for the Dow sites, at (301) 415-6700.

Sincerely,

A handwritten signature in cursive script that reads "Lawrence Bell for".

John W. N. Hickey, Chief  
Low-Level Waste and Decommissioning  
Projects Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 040-00017  
License No. STB-527  
Enclosure: NRC Form-314

cc: D. Minnaar, MDEQ  
J. C. Dehmel, SC&A  
J. Basta, Dykema Gossett

~~97-00017~~

(6-95)  
 10 CFR 30.36(c)(1)(iv)  
 10 CFR 40.42(c)(1)(iv)  
 10 CFR 70.38(c)(1)(iv)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 30 MINUTES. THIS SUBMITTAL IS USED BY NRC AS PART OF THE BASIS FOR ITS DETERMINATION THAT THE FACILITY HAS BEEN CLEARED OF RADIOACTIVE MATERIAL BEFORE THE FACILITY IS RELEASED FOR UNRESTRICTED USE. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0028), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503. AN AGENCY MAY NOT CONDUCT OR SPONSOR, AND A PERSON IS NOT REQUIRED TO RESPOND TO, A COLLECTION OF INFORMATION UNLESS IT DISPLAYS A CURRENTLY VALID OMB CONTROL NUMBER.

### CERTIFICATE OF DISPOSITION OF MATERIALS

INSTRUCTIONS: ALL ITEMS MUST BE COMPLETED -- PRINT OR TYPE  
 SEND THE COMPLETED CERTIFICATE TO THE NRC OFFICE SPECIFIED ON THE REVERSE

LICENSEE NAME AND ADDRESS  The Dow Chemical Company -- Michigan Operations  1000 East Main Street Midland, MI 48667	LICENSE NUMBER  STB - 527
	LICENSE EXPIRATION DATE March 31, 1978 (Under Timely Renewal)

**A. MATERIALS DATA** (Check one and complete as necessary)

THE LICENSEE OR ANY INDIVIDUAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE LICENSEE CERTIFIES THAT:  
 (Check and/or complete the appropriate item(s) below.)

1. NO MATERIALS HAVE EVER BEEN PROCURED OR POSSESSED BY THE LICENSEE UNDER THIS LICENSE.
- OR
2. ALL ACTIVITIES AUTHORIZED BY THE LICENSE HAVE CEASED AND ALL MATERIALS PROCURED AND/OR POSSESSED BY THE LICENSE NUMBER CITED ABOVE HAVE BEEN DISPOSED OF IN THE FOLLOWING MANNER. (If additional space is needed, use the reverse side or provide attachments.) Storage of thoriated slag at the Midland Site has ceased. A portion of the material at the Bay City Site, also covered by the license, remains.
- Describe specific material transfer actions and, if there were radioactive wastes generated in terminating this license, the disposal actions including the disposition of low-level radioactive waste, mixed waste, Greater-than-Class-C waste, and sealed sources, if applicable. The Midland Site material was excavated and trucked to Bay City where it was mixed with additional excavated material and shipped via rail car to the Envirocare Inc. facility in Utah.

For transfers, specify the date of the transfer, the name of the license recipient, and the recipient's NRC license number or Agreement State name and license number.

Midland material was shipped to Envirocare Inc. August, 1996 through December, 1996. Bay City shipping is still in progress. Envirocare's State of Utah License Number is: UT2300249

If materials were disposed of directly by the licensee rather than transferred to another licensee, licensed disposal site or waste contractor, describe the specific disposal procedures (e.g., decay in storage)

**B. OTHER DATA**

1. OUR LICENSE HAS NOT YET EXPIRED; PLEASE TERMINATE IT.
- Please amend STB-527 to eliminate any reference to the Midland Site.
2. A RADIATION SURVEY WAS CONDUCTED BY THE LICENSEE TO CONFIRM THE ABSENCE OF LICENSED RADIOACTIVE MATERIALS AND TO DETERMINE WHETHER ANY CONTAMINATION REMAINS ON THE PREMISES COVERED BY THE LICENSE. (Check one)
- NO (Attach explanation)
- YES, THE RESULTS (Check one)
- ARE ATTACHED, or
- WERE FORWARDED TO NRC ON (Date) March 31, 1997 (Midland Final Survey Report)

**RECEIVED**

**AUG 22 1997**

3. THE PERSON TO BE CONTACTED REGARDING THE INFORMATION PROVIDED ON THIS FORM	NAME Larry P. Giebelhaus	TELEPHONE NUMBER (Include Area Code) 517-636-5977
4. MAIL ALL FUTURE CORRESPONDENCE REGARDING THIS LICENSE TO		
Larry P. Giebelhaus Dow Chemical--Michigan Operations 1261 Building Midland, MI 48667		

*Pm: 8-19-97*

**CERTIFYING OFFICIAL**

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE Larry P. Giebelhaus Project Manager	SIGNATURE <i>Larry P. Giebelhaus</i>	DATE August 20, 1997
--	---	-------------------------

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECTS. 18 U.S.C. SECTION 1001 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 JURISDICTIONS.

96 PDR C  
 0285 970820  
 ADDCK 04000017  
 PDR