RMT INC.
RMT, Inc.
Suite 124
1406 East Washington Ave.
Madison, WI 53703-3009
Phone: 608-255-2134

Great Lakes Office
325 S. Clinton Street
P.O. Box 447
Grand Ledge, MI 48837-0447
Phone: 517-627-4044

May 26, 1988

Ms. Andrea R. Schoenrock
Environmental Engineer
Michigan Department of Natural Resources
Waste Management Division
Ottawa Street Building, South Tower
P.O. Box 30028
Lansing, Michigan 48909

SUBJECT: GMC-Saginaw Nodular Iron Addenda to RCRA Closure Plans
MID 041 793 340

Dear Ms. Schoenrock:

Attached are the Addenda to the Closure Plans for the old and existing calcium carbide treatment units and the control tank and drum storage area for GM-Saginaw Nodular Iron (SNI) in Saginaw, Michigan. These Addenda address comments contained in your letter of April 28, 1988 to SNI. As discussed with MDNR, we have prepared these Addenda rather than revising the entire report.

If you have any questions or comments, please address them to Mr. Bill Hudson of GM-SNI.

Sincerely,

Rick Krueger

Richard C. Krueger
Project Engineer

Tom Jancek

Thomas J. Jancek
Project Manager

tme

Enclosure

cc: Bill Hudson, GM-Saginaw Nodular Iron
David Hersh, GM-CFD Division Office
Joseph Medved, GM-CFD Division Office
James Sygo, MDNR-Saginaw

1125.17 101:TME:schoenrock

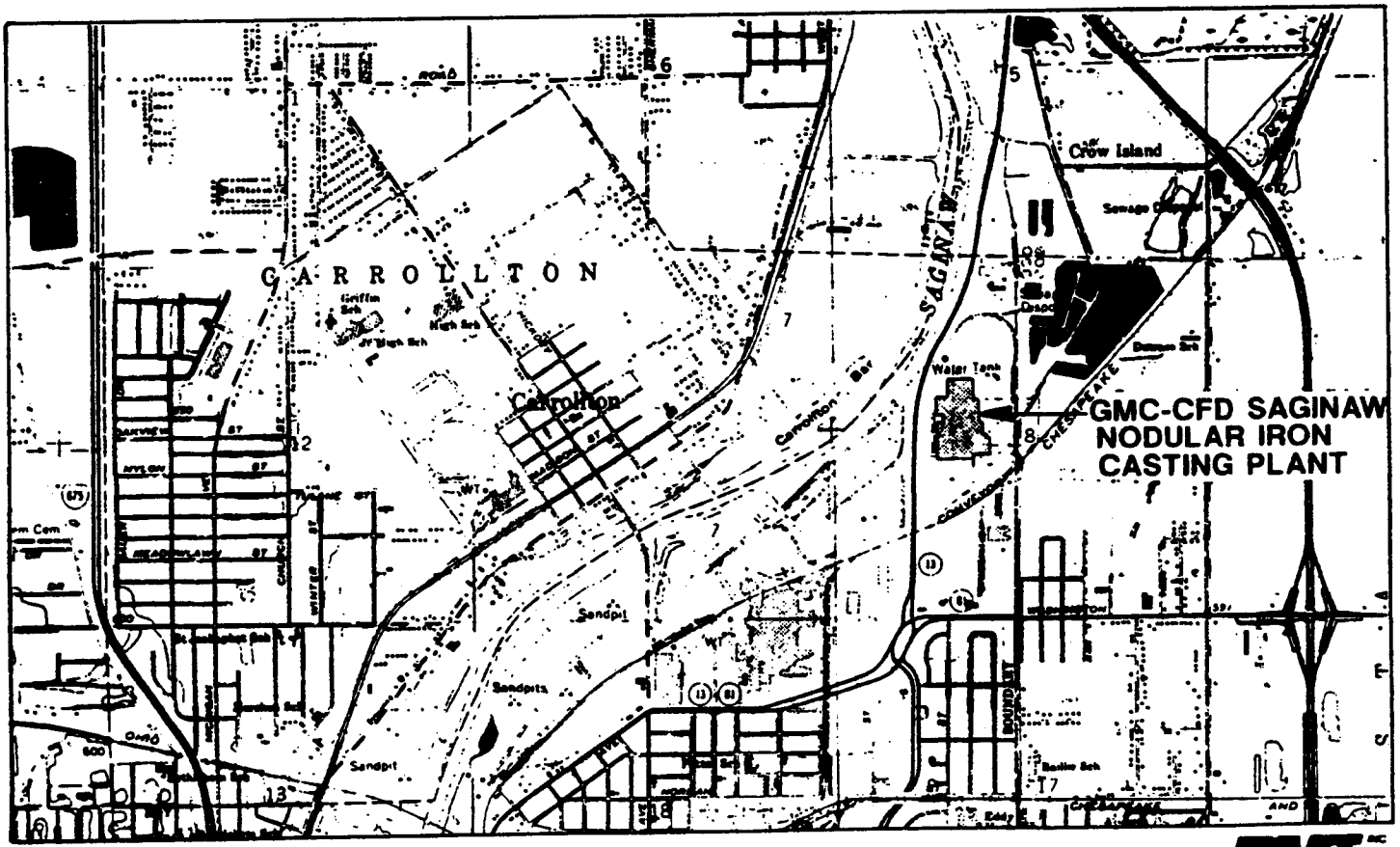
central foundry

GM

SAGINAW NODULAR IRON CASTING PLANT
SAGINAW, MICHIGAN

ADDENDA FOR RCRA CLOSURE PLANS

- HAZARDOUS WASTE CONTROL TANK
- PAINT STORAGE BUILDING DRUM STORAGE AREA
- EXISTING DESULFURIZATION SLAG TREATMENT BUNKER
- OLD DESULFURIZATION SLAG TREATMENT AREA



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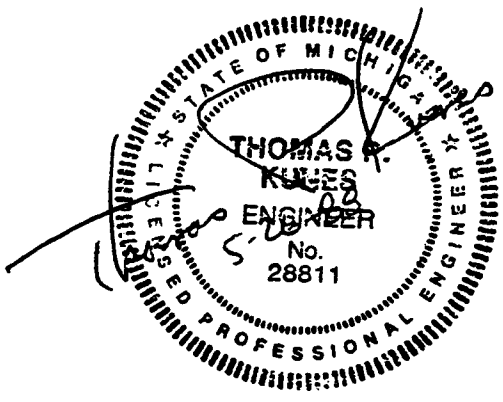
ADDENDUM TO
INTERIM STATUS CLOSURE PLAN FOR
OLD CALCIUM CARBIDE DESULFURIZATION
SLAG TREATMENT UNIT

FOR

SAGINAW NODULAR IRON CASTING PLANT
GENERAL MOTORS CORPORATION
CENTRAL FOUNDRY DIVISION
SAGINAW, MICHIGAN

MAY 1988



Thomas P. Kunes, P.E.
President, Northern Region

Richard C. Krueger
Project Engineer

Thomas J. Jancek RCK
Thomas J. Jancek
Project Manager

Daniel E. Oman
Daniel E. Oman, P.E.
Manager of Engineering

1125.17 101:RTE:sagi0518

RCK

INTRODUCTION

This Addendum addresses items specified by the State of Michigan Department of Natural Resources (MDNR), concerning the Closure Plan for the Old Calcium Carbide Desulfurization Slag Treatment Unit at the General Motors Saginaw Nodular Iron Casting Plant in Saginaw, Michigan (MID 041793340).

The Closure Plan was submitted to the MDNR in December 1987. The items addressed in this Addendum were contained in a MDNR letter on April 28, 1988, to the SNI Plant.

The format used in this Addendum presents each comment made by the MDNR, followed by the SNI response.

Comment 1

Soil samples must not be composited.

Response 1

Three soil samples will be collected from each borehole using the following schedule:

- Near the ground surface
- Immediately below the water table.
- Immediately below the foundry sand/native soil interface.

These samples will not be composited. However, due to the large quantity of sample needed to conduct the required analyses, a limited amount of mixing is necessary to obtain representative subsamples. Volatile organic chemicals are not being analyzed; therefore, mixing will not affect the analytical results. As indicated in the Closure Plan, individual soil samples will be digested using USEPA SW-846 Method 3050, with specific analytical methods for the individual metals.

Comment 2

If contamination is found, what is to be done with the contaminated soil or ground water? Remediation procedures must be included in the closure plan.

Response 2

As indicated in the Closure Plan (Section 5, Closure Performance Standard), "clean closure" will be attained by documenting that there are no statistically significant differences between soil ~~near~~ at the

Comment 3

It is stated that the liquids used for cleaning will be discharged directly on to the ground. The plan also states that hexane, methanol or other organic solvents may be used during decontamination. These solvents should be handled very carefully, containerized, and disposed of in an environmentally safe manner, not on the ground.

Response 3

Decontamination procedures will typically consist of steam-cleaning, as indicated in the Closure Plan. If an organic solvent is used, it would be collected, and disposed appropriately (e.g., at a RCRA TSD facility if it is a hazardous waste). It would be used only if oily soil were encountered.

Also, steam-cleaning will be conducted in an area where liquids will be routed to the GMC wastewater treatment system, rather than being discharged directly to the ground.

Comment 4

If contaminated soil removal is necessary, decontamination procedures for equipment used must be outlined, and also steps to ensure track out will not occur.

Response 4

If contaminated soil removal is necessary, equipment will likely consist of backhoes and dump trucks. Dump trucks will be positioned near the closure boundary. After loading, the tires of the dump truck

Response 6

Some soil samples will be digested using USEPA SW-846 Method 3050, and others will be leached using ASTM Method D-3987. The methods for analyses of the extract or leachate and the analytical detection limits expressed in SW-846 are as follows:

Parameter	Method	Instrument Detection Limit (ug/L)
Arsenic	7060	4
Cadmium	6010	4
Chromium	6010	7
Lead	6010	42
Selenium	7740	3
Zinc	6010	2
Total Organic Carbon		250
Total Phenols		5
Fluoride		100
Calcium Carbide		10 ml gas/100 grams slag

The detection limits are sample dependent, and may vary due to sample matrix interferences.

Comment 7

Iron, total chromium and total phenols should be included as soil monitoring parameters.

Response 7

As indicated in the Closure Plan (Section 6.4), total chromium and total phenols will be included in the soil analytical plan. Chromium will be digested using USEPA SW-846 Method 3050 and analyzed using Method 7190. For total phenols, samples will be prepared using the procedure described in the Closure Plan, and analyzed using USEPA 600/4-79-020 Method 420.1.

Response 9

The sampling and analysis plan described in the Closure Plan specifies 25 soil boring locations, with 3 samples being collected at each location. These locations were selected based on the grid spacing equation provided by the MDNR. In addition, if statistically significant soil contamination is identified, four ground water monitoring wells will be sampled and analyzed.

In the event that results of the "clean closure" sampling and analysis plan identify areas of contamination, Sections 5 and 7 of the Closure Plan describe the approach and decision-making process which will be used to determine the extent of contamination (soil or ground water).