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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,

Richard C. Krueger  
Project Engineer

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

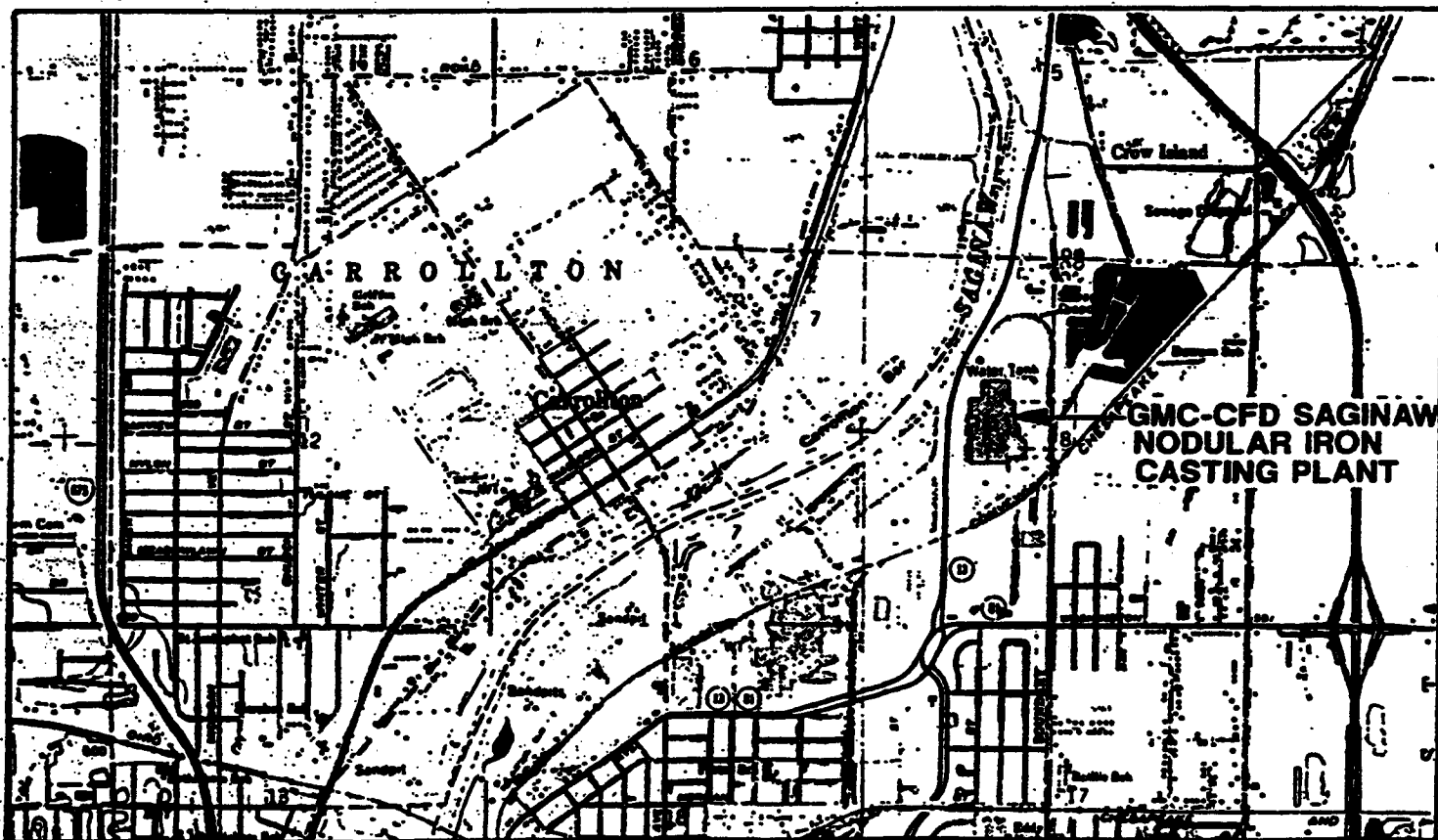
Engineering and Environmental Management Services



## 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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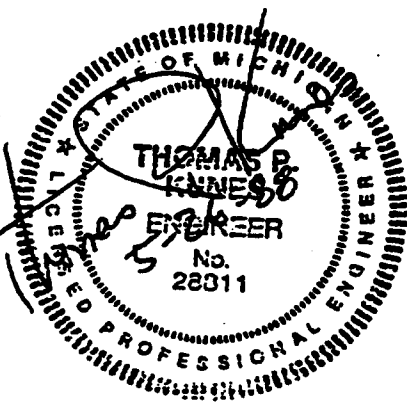
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ADDENDUM TO  
INTERIM STATUS CLOSURE PLAN FOR  
EXISTING CALCIUM CARBIDE DESULFURIZATION  
SLAG TREATMENT BUNKER

FOR

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

MAY 1988



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1125.17 101:RTE:sagi0519

## INTRODUCTION

This Addendum addresses items specified by the State of Michigan Department of Natural Resources (MDNR), concerning the Closure Plan for the Existing Calcium Carbide Desulfurization Slag Treatment Bunker 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 <sup>near</sup> the

treatment bunker and background soil. If a statistically significant difference is determined for soil <sup>at</sup> near the bunker, that material will be removed and disposed at a suitable landfill. The laboratory results will be compared to the MDNR "Solid Waste Designation Guidelines," to determine which of the following classifications would apply:

- . Inert
- . Inert for site-specific disposal
- . Type III
- . Hazardous Waste

Depending on the laboratory results, GMC-SNI may apply for the "Inert with Site-Specific Disposal" classification, rather than removal and disposal of an off-site landfill.

As discussed in the Closure Plan (Section 7, Ground Water Monitoring), if the results of the soil sampling and analysis activities indicate statistically significant differences <sup>between saturated-zone soils & background</sup> ground water monitoring will be conducted. The ground water monitoring program is described in the Closure Plan.

Ground water monitoring results will be evaluated based on the site-specific hydrogeologic setting to determine an appropriate remediation approach.

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

will be swept, the truck tires moved ahead, and swept again using a stiff-bristled brush. The resulting residue will be placed in a waste pile and removed during subsequent trips to the disposal site. The dump truck will then be moved out of the closure boundary and to the disposal site.

At the completion of the removal activities, equipment will be swept using a stiff-bristled brush and steam-cleaned prior to leaving the GMC-SNI facility. Steam-cleaning liquids will be routed to the GMC existing wastewater treatment system.

Comment 5

The health and safety plan outline on page 41 appears very thorough, however, the actual plan should be submitted prior to the start of closure activities.

Response 5

The SNI Plant is in the process of developing a site-specific health and safety plan for closure activities related to the existing calcium carbide desulfurization slag treatment bunker. The plan will be submitted to the MDNR approximately four weeks prior to beginning on-site activities.

Comment 6

The expected analytical detection limits should be included.

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:

<u>Parameter</u>	<u>Method</u>	<u>Instrument Detection Limit (ug/L)</u>
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.