State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

WISCONSIN
DEPT. OF NATURAL RESOURCES

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OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

December 21, 1992

In Response Refer To: FID# 241020890
County of Milwaukee
HW LIC File/hydtcvr.1292

Tom Miazga, Director of Regulatory & Environmental Affairs
Hydrite Chemical Company
Drawer #0948
Brookfield, Wisconsin 53008-0948

Subject: Hydrite Chemical Company - National Avenue Facility
229 East National Avenue, Milwaukee, WI.
EPA ID# WID006435887
Conditional Closure Plan Approval Modification

Dear Mr. Miazga:

The Department has reviewed the report titled "Amended Closure Plan/Remedial Action Plan - Hydrite Chemical Company - National Avenue Site - Milwaukee, Wisconsin - February 1992", which was received by the Department on February 4, 1992. This report was prepared by RMT, Inc. (RMT) on behalf of Hydrite Chemical Company (Hydrite). The Department has also reviewed additional closure information submitted by Hydrite in letters dated October 25, 1991, January 31, 1992 and June 25, 1992. This conditional closure plan approval modification allows Hydrite to proceed to implement the proposed closure soil investigation and "NR 140 - Soil Characterization" investigation, provided the conditions of the attached closure plan approval modification and applicable administrative codes are complied with. A discussion of the Department's review of the submittals listed above, follows. This discussion also includes the Department's review of Hydrite's September 25, 1992 comment letter submitted in response to the Department's August 31, 1992 draft of this conditional closure plan approval modification.

In the September 25, 1992 comment letter Hydrite requested "..that the conditions applicable to the Hazardous Waste Facility Closure activity be clearly distinguished from those applicable to the NR 140 Soil Characterization [investigation]". The Department intentionally worded several of the conditions to pertain to both the closure and NR 140 soil characterization investigations, because these two soil investigations will occur at the same time. The Department assumed the soil samples would then be analyzed at the same time, resulting in the analytical data being separately summarized and evaluated, but submitted to the Department in one report. Therefore, to address this request the Department reviewed the conditions and categorized them as being applicable to either 1) both the closure and NR 140 soil characterization investigations; 2) the closure investigation only; or 3) the NR 140 soil characterization investigation only. Conditions # 1, 2, 3, 6, 7a, 7b, 8, 9, 10, 11 and 12 are applicable to both the closure and the NR

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140 soil characterization investigations. Conditions # 4 and 7c are applicable to the closure investigation only. Finally, conditions #5 and 7d are applicable to the NR 140 soil characterization investigation only.

In association with closure of the hazardous waste management storage areas at the National Avenue facility, Hydrite has proposed to establish clean closure levels for selected constituents of concern in soil. This will be accomplished by first analyzing the selected constituents of concern in soil samples for compositional (total) concentrations, and then performing a statistical evaluation of this analytical data relative to selected background data for the site. The Department is approving the proposed statistics with the understanding (following an 8/17/92 phone conversation with Tom Stolzenburg of RMT), that 1) soil proton concentrations, not pH, will be used in the statistical calculations; and 2) Hydrite will present and justify the numerical values selected for performing the statistical calculations when an individual constituent analysis comes back as less than the detection limit. After receiving the report containing the results of the closure investigation, the Department will need to review the calculated background concentrations and statistics, and make a determination as to whether or not the methods, results and recommendation for either follow-up closure action or no further closure action, are acceptable for approval.

The Department still believes that cyanide may be of concern at the Hydrite National Avenue facility and denies Hydrite's request to delete cyanide from the closure parameter list. Cyanide has been included because F007 waste was listed on Hydrite's hazardous waste notification form for the Hydrite National Avenue facility and Hydrite accepted waste from numerous companies involved in electroplating operations. F007 waste is consistent with expected incoming waste streams. Therefore, the analysis of soil samples for cyanide is necessary to clarify whether cyanide wastes were handled at the facility.

The Department has determined that for <u>selected constituents</u> a leach test may be performed on the soil samples collected as part of the NR 140 soil characterization investigation. The proposed leach test is not acceptable to the Department. Instead, Hydrite may perform the leach test using the EPA proposed SW-846 Method 1312, which uses a mild acid as the leaching medium, rather than distilled water.

The following constituents were detected in one or more monitoring wells at the Hydrite National Avenue facility in concentrations at or above either the Ch. NR 140, Wisconsin Administrative Code, Preventive Action Limit (PAL) or Enforcement Standard (ES): arsenic, benzene, cadmium, chromium, lead, nitrate-nitrite, silver, sulfate and toluene. In addition, RMT (on behalf of Hydrite) reported in the February 1992 amended closure plan/remedial action plan that "...elevated levels of ammonia-nitrogen (22 to 1,100 mg/L) and phosphate (200 to 760 mg/L) were detected in all three monitoring wells, although no standards exist for these parameters." Chloride has also been detected in groundwater samples at potentially elevated concentrations (although the PAL for chloride has not been attained or exceeded), and was proposed as an NR 140 soil characterization parameter by RMT. Nickel was detected in one of the on-site monitoring wells at a concentration of 170 ug/L, which exceeds the proposed Federal Maximum Contaminant Level (MCL) of 100 ug/L. Therefore, except for benzene, toluene and silver, these constituents are included on either the closure parameter list or on the NR 140 soil characterization parameter list. At this time, silver is not a required NR 140 <u>soil</u> characterization parameter. It was detected at the PAL in only one of five groundwater samples taken from the three facility

monitoring wells. However, since silver attained its PAL, it must be included on the parameter list developed for the additional groundwater investigation required by condition #7 of the attached approval to determine if it is present. Benzene and toluene are also not required parameters for this NR 140 soil characterization investigation, because information gathered at the Hydrite facility to-date suggests that these constituents would fall under the authority of the Department's UST program. The Hazardous Waste Management program will recommend to the UST program that benzene and toluene be analyzed for during any future rounds of UST groundwater sampling. The Department suggests, however, that Hydrite consider analyzing the soil samples for constituents that may be of concern with respect to other regulatory programs, such as the UST program (e.g., BTEX and TPH), and any other constituents viewed as a potential concern by Hydrite.

At this time, the Department will not require that soil (fill) samples be analyzed for grain size distribution, and will not require the preparation of expanded geologic cross-sections. The Department, however, reserves the right to require this information at any time in the future, if deemed necessary.

The September 25, 1992 letter from Hydrite states that "Should those indicator parameters be detected at a given source area in sufficient concentration to warrant further evaluation per ch. NR 140, Hydrite intends to continue the evaluation process. If, however, there is not an indication of the presence at a given source area, no further NR 140 evaluation of that area would be conducted." Hydrite should be aware that any decision to terminate the NR 140 Soil Characterization investigation must be approved by the Department.

This approval allows Hydrite to implement a closure investigation and an NR 140 soil characterization investigation under the authorities of Chs. NR 600 - 685 and NR 140, Wis. Adm. Code. It should be noted, however, that contamination at the facility may also need to be addressed under other regulatory programs (e.g., UST). This conditional approval does not cover the UST removal/investigation at the Hydrite National Avenue facility. Verbal approval of the UST plan was previously given by Chip Krohn (SED office). Hydrite should continue to obtain guidance and approval from Chip Krohn on that project.

The burden of proof remains with Hydrite to show that detected constituents of concern in groundwater have not originated from Hydrite's previous operations at the National Avenue facility. In addition, the fact that the site is complicated due to unknown fill, history of property ownership and complex groundwater flow patterns strongly argues for adequate environmental investigations to attempt to determine the source, degree and extent of contamination that has been detected during previous site investigations. The Department recently provided Hydrite with data results from the groundwater monitoring program in-place at the adjacent Florida Yards property. This is an example of another facility in this area where a WDNR environmental investigation is being performed.

Under the authority of Ch. NR 140, Wis. Adm. Code, the Department is requiring Hydrite to submit a proposal for an additional groundwater investigation with the objective of further defining the source, degree and extent of groundwater contamination at the Hydrite National Avenue facility. All constituents detected in groundwater that have attained or exceeded their statutory NR 140, Wis. Adm. Code PAL must be included on a parameter list developed for this additional groundwater investigation (see condition #7 of the attached approval). This parameter list must also include constituents that do not

have PALs, but for which elevated concentrations have been noted.

Wisconsin has obtained final authorization for the RCRA Corrective Action Program from the U.S. EPA and may impose corrective action requirements on regulated facilities. At this time, the Department does not intend to use this authority at the Hydrite facility, provided there is adequate resolution of environmental contamination problems at the facility.

The Department looks forward to continued cooperation with Hydrite on this remediation project. If you have any questions or comments, please feel free to call Patrick Brady of my staff at (414) 961-2717, or Cynde English in Madison at (608) 266-7017.

Sincerely,

Walt Ebersohl

Walter A. Ebersohl
Hazardous Waste Management Section Supervisor
Southeast District

cc: SED Casefile (W. Ebersohl, P. Brady)
Ed Lynch - SW/3
Cynde English - SW/3
Pete Flaherty - LC/5
J. Greene - DOJ
C. Krohn - SED LUST Section
Steve Martin - RMT, Inc.
Chuck Slaustas - U.S. Region V (RCRA Permitting Branch - HRP/8J)

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
CONDITIONAL CLOSURE PLAN APPROVAL MODIFICATION
HYDRITE CHEMICAL COMPANY - NATIONAL AVENUE FACILITY
MILWAUKEE, WISCONSIN
WID#006435887
FID#241020890

FINDINGS OF FACT

GENERAL INFORMATION

OWNER/OPERATOR: Hydrite Chemical Company
300 N. Patrick Blvd. (53045)
Drawer #0948
Brookfield, WI. 53008-0948

CONTACT: Tom Miazga, Dir. of Regulatory & Environmental Affairs
300 N. Patrick Blvd. (53045)
Drawer #0948
Brookfield, WI. 53008-0948
(414) 792-8796

CONSULTANT: RMT, Inc.
744 Heartland Trail
Madison WI 53708-8923
(608) 831-4444
Steve Martin, Hydrogeologist

FACILITY LOCATION: The Hydrite Chemical Company - National Avenue facility is located on the near southeast side of the city of Milwaukee, Wisconsin (NE 1/4, NE 1/4, SE 1/4, Section 32, T7N, R22E, Milwaukee County), approximately 800 feet west of the Milwaukee Harbor. The address for the facility is as follows:

Hydrite Chemical Company
229 East National Avenue
Milwaukee, WI 53204

The Department finds that:

1. Hydrite Chemical Company - National Avenue facility (Hydrite) filed a notification of hazardous waste activity form on November 18, 1980. An EPA RCRA Part A hazardous waste permit application was filed on November 5, 1982 with EPA. An interim license was issued to Hydrite on January 19, 1983 allowing the facility to store waste in above ground tanks on site. A subsequent notification of hazardous waste activity form was filed with the Department on August 11, 1988.

2. On February 18, 1983 Hydrite submitted a Part B hazardous waste permit application to the U.S. EPA. On May 8, 1985 the Department called in Hydrite's feasibility report. On February 11, 1987 a favorable feasibility report determination was issued to Hydrite by the Department. Subsequently, the Department received a plan of operation report for the Hydrite National Avenue facility on May 6, 1987.

3. In a November 15, 1988 letter to the Department, Hydrite announced their intent to close the National Avenue facility. On January 31, 1989 the Department acknowledged Hydrite's intent to close the National Avenue facility.

4. Characteristic hazardous wastes as defined in s. NR 605.08, Wis. Adm. Code and listed hazardous wastes as defined in s. NR 605.09, Wis. Adm. Code have been stored at the Hydrite Chemical Company - National Avenue facility.

5. Materials have been discharged at the Hydrite facility that are hazardous substances as defined in s. 144.01(4m), Wis. Stats., and s. NR 158.03(4), Wis. Adm. Code. Materials may have been discharged at the Hydrite facility that are hazardous wastes as defined in s. 144.61(5), Wis. Stats., and s. NR 605.04, Wis. Adm. Code.

6. The Department and Hydrite have been working to obtain closure of Hydrite's former hazardous waste storage area at the National Avenue facility for over three years. The following chronology of submittals and major issues is presented:

   a. On May 26, 1989 Hydrite submitted a revised closure plan. On August 24, 1989 the Department public noticed Hydrite's intent to close. Subsequently, the closure plan was conditionally approved by the Department in a letter to Hydrite dated October 19, 1989.

   b. On April 27, 1990, the Department issued a notice of violation to Hydrite citing them for noncompliance with their approved closure plan.

   c. On April 17, 1990, Hydrite received their last shipment of hazardous waste from off-site. On June 30, 1990, Hydrite sent their last shipment of hazardous waste off-site.

   d. On May 16, 1990, Hydrite submitted to the Department a revised closure schedule for the National Avenue facility.

   e. In July and August of 1990, subsurface soil sampling and analyses were performed at the Hydrite National Avenue facility in response to closure requirements.

   f. On August 17, 1990, officials from Hydrite, Triad Engineering and the Department met to discuss the results of the July and August

1990 subsurface soil sampling and analyses.

g. In an August 27, 1990, letter to Triad Engineering, the Department requested additional environmental investigations be performed at the Hydrite National Avenue facility to further determine the degree and extent of contamination due to facility operations.

h. On September 14, 1990 Triad Engineering, on behalf of Hydrite, submitted a work plan for additional environmental sampling and analyses at the National Avenue facility.

i. On November 15 and 16, 1990 soil samples and groundwater samples (via newly constructed monitoring wells) were collected from the Hydrite National Avenue facility and analyzed.

j. On February 13, 1991 groundwater samples were again collected from the facility monitoring wells and additional laboratory analyses were performed on the samples.

k. On March 4, 1991 Triad and Giles Engineering (on behalf of Hydrite) submitted an environmental investigation report that included the results of the sampling and analyses performed in November of 1990 and February of 1991.

l. On June 26, 1991 officials from Hydrite, Triad and Giles Engineering and the Department met at Triad Engineering to discuss the results of all environmental sampling and analyses performed to-date.

m. On June 27, 1991 additional groundwater samples were collected for laboratory analyses from the three facility monitoring wells.

n. On July 17, 1991 officials from Hydrite, Triad and Giles Engineering and the Department met in Madison to discuss the status of closure for the Hydrite National Avenue facility.

o. On September 4, 1991 the Department sent a letter to Hydrite requesting that a combined remediation plan and revised closure plan be prepared and submitted.

p. On September 26, 1991 Triad and Giles Engineering, on behalf of Hydrite, submitted a complete set of available environmental monitoring results.

q. On October 25, 1991, Hydrite submitted a letter to the Department that addressed outstanding issues from their previous submittals and requested a 30 day extension for submittal of the combined closure/remediation plan. In an October 30, 1991 letter to Hydrite, the Department granted their extension request. On November 15, 1991 Hydrite's consultant, RMT, requested an

additional 30 day extension. In a January 7, 1992 letter to Hydrite, the Department provided comments on the October 25, 1991 submittal from Hydrite and approved the extension request made by RMT.

r. On January 31, 1992 Hydrite sent a letter to the Department, which addressed item #2 of the Department's January 7, 1992 letter, and stated that items #1 and #3 would be addressed in the revised closure plan/remedial action plan. On February 3, 1992 RMT (on behalf of Hydrite) submitted a work plan to the Department titled "Amended Closure Plan/Remedial Action Plan - Hydrite Chemical Company - National Avenue Site - Milwaukee Wisconsin - February 1992".

s. On May 11, 1992, the Department meet with officials from Hydrite and their consultant, RMT, to discuss the February 3, 1992 revised closure plan submittal. In a June 25, 1992 letter to the Department, RMT responded to the Department's request for information from the May 11, 1992 meeting.

t. On August 31, 1992, the Department issued a draft conditional closure plan approval modification to Hydrite. In a letter dated September 25, 1992, Hydrite provided comments to the Department on draft conditional closure plan approval modification.

7. Ch. NR 140, Wis. Adm. Code, Preventive Action Limits and Enforcement Standards for substances of health and welfare concerns have been attained or exceeded at the point of standards application.

8. In accordance with s. NR 103.08, Wis. Adm. Code, the Department has determined that the activities approved under this conditional closure plan approval will not adversely affect any wetland areas. Therefore, these activities are in conformance with the provisions of ch. NR 103, Wis. Adm. Code.

9. This conditional closure plan approval is necessary to protect human health and the environment. This conditional closure plan approval is also necessary to approve soils investigations to address chs. NR 600 - 685, Wis. Adm. Code, and ch. NR 140, Wis. Adm. Code, as applicable to closure of hazardous waste storage areas and groundwater contamination.

CONCLUSIONS OF LAW

1. The Department has the authority to grant licenses in accordance with s. 144.64(2), Wis. Stats. Hydrite was granted an interim license as a hazardous waste storage facility in accordance with ch. NR 181, Wis. Adm. Code (ch. NR 181, Wis. Adm. Code was the predecessor of chs. NR 600 through 685, Wis. Adm. Code).

2. The Department is required to adopt rules under s. 144.62(8), Wis. Stats. that prescribe requirements for the management of hazardous waste. Chs. NR 600 through 685, Wis. Adm. Code, were promulgated under this authority.

3. Closure requirements for container and tank storage facilities are outlined in ss. NR 640.16 and 645.17, Wis. Adm. Code. These sections require that the owner or operator of a facility remove or decontaminate all waste residues, including contaminated soils.

4. Hazardous substances are defined in s. 144.01(4m), Wis. Stats. Hazardous waste means any solid waste identified by the Department as hazardous under s. 144.62(2), Wis. Stats. Hazardous substances were released into the environment at the Hydrite National Avenue facility. Hazardous wastes may have been released into the environment at the Hydrite National Avenue facility.

5. A person who possesses or controls a hazardous substance that is discharged, or who causes a discharge of a hazardous substance, is required under s. 144.76(3), Wis. Stats. to take actions necessary to restore the environment and minimize the harmful effects of discharges of hazardous substances to the environment.

6. The Department has authority under ss. NR 140.24 and NR 140.26, Wis. Adm. Code, to specify the terms and conditions under which the Department may seek remedial action when a preventative action limit or enforcement standard is attained or exceeded.

7. The Department has the authority to impose monitoring requirements pursuant to s. NR 600.07, Wis. Adm. Code, if the Department determines there is potential for discharges of hazardous waste or hazardous constituents to the environment.

CONDITIONAL APPROVAL

Based on the Finding of Facts and Conclusions of Law, the Department issues this modification to the Hydrite Conditional Closure Plan Approval subject to compliance with chs. NR 600 - 685 and NR 140, Wis. Adm. Code, and the following conditions:

1. All scope of work activities shall be conducted in accordance with the report entitled "Amended Closure Plan/Remedial Action Plan, Hydrite Chemical Company, National Avenue Site, Milwaukee, Wisconsin, February 1992", except where the following conditions dictate otherwise.

2. The Department shall be notified one week in advance of Hydrite initiating fieldwork at the National Avenue Site. This gives the Department the opportunity to concur with Hydrite on the choice of boring locations and observe the investigation activities.

3. Hydrite shall make every attempt to locate the borings where there is a likelihood that hazardous waste or material has contaminated the subsurface, such as in cracks or in other breeches in the paved area.

4. The parameter list for the closure soil investigation shall consist of the following chemical constituents:

   arsenic
   chromium
   cyanide
   lead
   pH

   Except for pH, the above list of chemical constituents shall be analyzed using compositional analyses via acceptable EPA SW-846 methods. The method analyses for pH shall remain as SW-846 Methods 9040/9041.

5. The parameter list for the "NR 140 - Soil Characterization" investigation shall consist of the following chemical constituents:

   ammonium (ammonia nitrogen)
   cadmium
   chloride
   nickel
   pH
   phosphate
   nitrate & nitrite
   sulfate

   The above list of "NR 140 - Soil Characterization" chemical constituents shall be analyzed in a minimum of one sample per soil boring. Except for pH, cadmium and nickel, the proposed SW-846 Method 1312 Synthetic Precipitation Leaching Procedure (SPLP) shall be used to analyze for the above list of chemical constituents. The method analyses for pH shall remain as SW-846 Methods 9040/9041. Cadmium and nickel shall be analyzed using compositional analyses via acceptable EPA SW-846 methods.

6. Any soils excavated and handled on site as part of the closure and "NR 140 - Soil Characterization" investigations shall be evaluated to determine the appropriate waste classification for purposes of proper soil management.

7. Hydrite shall submit a report to the Department by June 1, 1993 documenting the results of the investigations. This report shall at a minimum include:

   a. all data results generated from the investigations.

   b. a discussion consisting of a description of the methods and procedures utilized to conduct the investigations and a summary of the major findings. If the investigations utilize procedures exactly as specified by published methods, then a reference to that method is sufficient. Any procedural changes to published methods shall be documented and supporting justification included.

   c. recommendations for follow-up closure action. If no further action on closure is needed, the report shall contain the certification statements of closure from the owner or operator <u>and</u>

an independent professional engineer, as outlined in s. NR 685.05(10). The report shall also contain a detailed narrative, chronologically describing and documenting the closure of the storage areas, including:

i. a discussion of the soil sampling results as compared to the established clean closure levels.

ii. a series of properly labeled color prints that document all major aspects of facility closure. This shall include panoramic views as well as close-up photos of the closed storage areas.

d. a detailed workplan for an additional groundwater investigation to address the Ch. NR 140, Wis. Adm. Code, groundwater exceedances.

8. The report required by condition #7, above, shall include an appendix that contains relevant references, all raw data (e.g., soil borings, soil sampling data, etc.), other supplemental data or information not previously presented, lab quality assurance/control data and statistical data calculations. Hydrite shall prepare, expand and/or up-date data tables, maps, forms and figures as needed. This shall include, but not be limited to the following:

a. Location and existing conditions maps
b. Constituent concentration or iso-concentration maps

Data generated from the soil investigations shall be presented in general conformance with ss. NR 512.12 and NR 512.13, Wis. Adm. Code, as applicable.

9. The report required by condition #7, above, shall be prepared in accordance with s. NR 680.05, Wis. Adm. Code, unless specifically exempted.

10. Copies of all submittals shall be sent to the WDNR Southeast District office (2 copies) and the WDNR Bureau office (2 copies).

11. The Department retains the right to modify this conditional plan approval and to require additional information at any time.

12. Nothing in this conditional closure plan approval modification shall relieve Hydrite of the legal obligation to comply with applicable federal, state and local requirements.

NOTIFICATION OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Statutes, as renumbered by the 1985 Wisconsin Act 182, you have 30 days after

the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

This notice is provided pursuant to s. 227.48(2), Statutes, as renumbered by the 1985 Wisconsin Act 182.

Dated: January 21, 1992

DEPARTMENT OF NATURAL RESOURCES
For the Secretary

Walter A. Ebersohl

Walter A. Ebersohl
Hazardous Waste Management Section Supervisor
Southeast District