



DEPARTMENT OF THE NAVY

SOUTHERN DIVISION

NAVAL FACILITIES ENGINEERING COMMAND

P.O. BOX 190010

2155 EAGLE DRIVE

NORTH CHARLESTON, S.C. 29419-9010

N91192.AR.000495

NIROP FRIDLEY

5090.3a

→ Kerry Morrow
→ David Douglas

5090

Code 1868

10 January 2000

Mr. David Douglas
Minnesota Pollution Control Agency
Site Remediation Section
520 Lafayette Road
St. Paul, Minnesota 55155-4194

Subj: NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT (NIROP), FRIDLEY –
DISPOSAL HISTORY

Ref: (a) MPCA ltr of August 6, 1999
(b) SOUTHDIV ltr of May 26, 1999
(c) MPCA ltr of June 21, 1999

Dear Mr. Douglas:

We reviewed your MPCA letter, reference (a) dated August 6, 1999, regarding waste disposal activities at the Naval Industrial Ordnance Plant (NIROP). Your letter includes "MPCA summary statements and conclusions" based upon information included in the Initial Assessment Study (IAS), dated June 1983 and information included in a 15 July 1999 letter from United Defense Limited Partnership (UDLP)-the facility operator. The IAS was an "initial" study to collect preliminary data about operations at the plant from the 1940s through the present (in this case, the present being early 1983.)

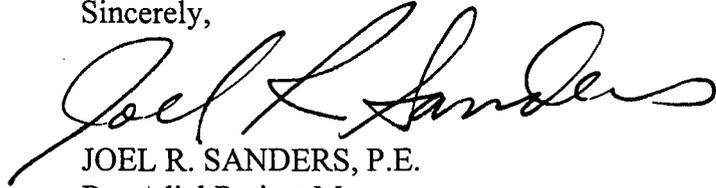
The Navy and UDLP previously provided all available past disposal information. If new information is located, it will immediately be provided to MPCA as was promised in reference (b) and agreed to by reference (c). At that time, the new information can be better addressed in discussions with UDLP during our formal partnering meetings.

The enclosed comments address our position on the "MPCA summary statements and conclusions." The current level of past disposal activities information does not support many of the MPCA summary statements and conclusions; it is impossible to create defensible material balance equations with this information.

Subj: NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT (NIROP), FRIDLEY –
DISPOSAL HISTORY

If you have comments or questions, please contact me at 843-820-5562.

Sincerely,

A handwritten signature in black ink that reads "Joel R. Sanders". The signature is written in a cursive, flowing style.

JOEL R. SANDERS, P.E.
Remedial Project Manager
Installation Restoration II Division

Encl: (1) Navy's Response to MPCA letter of August 6, 1999 NIROP Disposal History

Copy to:

US Environmental Protection Agency, Region V, (Thomas Bloom)

TTNUS (Mark Sladic)

NIROP (Kerry Morrow)

UDLP (Doug Hildre)

**NAVY'S RESPONSE TO MPCA LETTER OF AUGUST 6, 1999
NIROP DISPOSAL HISTORY**

**NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
FRIDLEY, MINNESOTA
January 6, 2000**

REF: (A) SOUTHDIV LTR OF MAY 26, 1999

(B) UDLP LTR OF JULY 15, 1999

**GENERAL RESPONSE TO MPCA LETTER OF AUGUST 6, 1999 NIROP
DISPOSAL HISTORY:**

The Navy would like to again reiterate our position on the IAS of 1983 as stated in ref (A). We strongly disagree with the MPCA view that the IAS is "salient information" or information used for outward projections.

- The IAS served as the CERCLA Preliminary Assessment(PA)/Site Investigation(SI) phase of the Installation Restoration program. **The main purpose of the IAS was to collect information for use in assessing the existence of hazardous substance at a site and determining the potential for hazardous substance migration to determine if a release may require additional investigation or action. The NCP states that a SI's purpose "is to augment the data collected in the PA and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate."**
- Four persons performed the 1983 IAS in four days at the inception of the Installation Restoration Program. By necessity, this level of investigation resulted in extrapolation of some actual material usage rates over the plant's operating history. To the best of our knowledge, all actual information in the Navy's possession has been provided to you (and the EPA). If additional information becomes available through FMC/UDLP on past operations or disposal sites, we will certainly provide it to you. FMC/UDLP has been strongly encouraged to provide any additional information they have.
- In theory, determining what was taken off-site may help you determine what volumes of waste you expect to find on-site and when you expect the site to be cleaned-up. However, **a mass balance of waste generated equaling waste recovered is nearly impossible due to the physical changes that occur after waste is generated/disposed such as volatilization, adsorption, reclamation, absorption,**

diffusion, advection, dispersion, retardation, natural attenuation, etc. Sites will not be considered cleaned up until all parties have agreed upon remedial goals and these goals are met through either active or passive remedies.

- If additional off-site disposal sites are found and our waste is identified, the liability /responsibility for the cleanup of those sites would be addressed under a separate program (i.e. Third Party Site Program - not the NIROP Installation Restoration Program).

RESPONSES TO SUMMARIES IN MPCA LETTER OF AUGUST 6, 1999 NIROP DISPOSAL HISTORY:

MPCA: Onsite Disposal Locations

From the 1940s to 1969, the Navy disposed of hazardous wastes in what is now known as the "North 40". From 1941 to 1983, the Navy disposed of industrial waste in the NIROP sanitary sewer. These (and TCE releases into the air from the operation of the groundwater treatment remedy) are the only known onsite disposal locations.

Response: Ref (B) indicates that the only evidence of disposal in the North 40 was during late 1969 to 1972. The evidence was a 1972 aerial photograph. Actual cleanups previously completed by the Navy in 1983, 1991 and 1996 confirmed this. The Navy agrees that the operator discharged **industrial waste** into the NIROP sanitary sewer from 1941 to 1983 per the IAS. However, a majority of the **industrial wates** listed in the IAS, page 7-2, are rinsewaters, etc. and may not have been hazardous waste . Also, domestic waste was co-disposed with the industrial waste. As far as TCE releases into the air from operation of the GWTF, the Navy is complying with the site specific AERs and allowable groundwater concentrations approved by MPCA on February 22, 1999.

MPCA: Offsite Disposal Locations

From the 1940s to 1969, the Navy disposed of hazardous wastes in what is now known as the FMC Hazardous Waste Site. In addition, the Navy disposed of hazardous wastes at the Waste Disposal Engineering (WDE) landfill in Andover, MN, also known as Solid Waste Landfill 028 or "Landfill S.W. 28."

The MPCA staff has information that the Navy disposed of hazardous waste at the Oak Grove Landfill, the East Bethel Landfill, and the Anoka County Landfill. Foundry sands were disposed of at the East Bethel Landfill and at the WDE Landfill.

Response: We agree with ref (B) that from the 1940s to 1969, the operator disposed of hazardous waste in what is now known as the FMC Hazardous Waste Site.

Although UDLP has provided documentation to the MPCA that shows hazardous waste from the plant was disposed of at the Waste Disposal Engineering (WDE) landfill in Andover, MN, also known as Solid Waste Landfill 028 or "Landfill S.W. 28", there is no hard evidence that the other referenced landfills were used by the plant for disposal of **hazardous waste** (except for some haulers testimony).

The Navy, UDLP, or there predessessors have never been identified as disposing of **hazardous waste** at the Anoka County landfill. US EPA REGION V has initiated a 104E request for Anoka County Park.

MPCA: Volumes of Waste Disposed of Onsite

From 1941 to 1983, the Navy disposed of approximately 1.891 trillion gallons of industrial waste in the NIROP sanitary sewer. From 1975 to 1996, the Navy removed 247 drums of hazardous waste excavations from the North 40. From 1992 through July 1999, approximately 23 drums of trichlorethylene have been removed from the ground water by the groundwater pump and treat system.

Response: The Navy does not agree that the extrapolation method used constitutes a valid basis for determining the actual amount of wastes historically disposed on-site, sent off-site for disposal or discharged to the NIROP's sanitary sewer system.

MPCA: Volumes of Waste Disposed Offsite:

The Navy's IAS and Mr. Hildre's letter of July 15, 1999 document that waste generated at NIROP was also disposed of offsite. In your letter on May 26, 1999, you estimated that the Navy generated 8,423 drums of waste for offsite disposal for the 42 year period from 1941 to 1983 or about 200 drums per year. In Mr. Hildre's letter, he estimates that between 8,000 gallons (145 drums) and 20,000 gallons (363 drums) of waste were disposed of offsite yearly. Since according to the Navy, UDLP has more complete records of waste disposal, the MPCA will use Mr. Hildre's estimates, which are not inconsistent with your estimate. Therefore, in the same 42 year time period, between 6090 and 15,272 drums of waste are estimated to have been disposed of offsite.

Response: The Navy does not agree that the extrapolation method used constitutes a valid basis for determining the actual amount of wastes historically disposed on-site, sent off-site for disposal or discharged to the NIROP's sanitary sewer system.

RESPONSES TO CONCLUSIONS IN MPCA LETTER OF AUGUST 6, 1999
NIROP DISPOSAL HISTORY:

MPCA Conclusion 1: Most onsite hazardous waste was disposed in the NIROP sanitary sewer.

Response: There is no evidence to suggest that "Most onsite hazardous waste was disposed in the NIROP sanitary sewer." This contradicts MPCA Conclusions number 3 and 4. Again, the Navy agrees that the operator discharged **industrial waste** into the NIROP sanitary sewer from 1941 to 1983 per the IAS. However, a majority of the **industrial wates** listed in the IAS, page 7-2, are rinsewaters, etc. and may not have been hazardous waste. Also, domestic waste was co-disposed with the industrial waste.

MPCA Conclusion 2: The Navy disposed of hazardous waste in at least four landfills in Minnesota.

Response: Although UDLP has provided documentation to the MPCA that shows hazardous waste from the plant was disposed of at the Waste Disposal Engineering (WDE) landfill in Andover, MN, also known as Solid Waste Landfill 028 or "Landfill S.W. 28", there is no hard evidence that the other landfills were used by the plant for disposal of **hazardous waste** (except for some haulers testimony).

The Navy, UDLP, or there predessessors have never been identified as disposing of **hazardous waste** at the Anoka County landfill. US EPA REGION V has initiated a 104E request for Anoka County Park.

As stated previously, if additional off-site disposal sites are found and our waste is identified, the liability /responsibility for the cleanup of those sites would be addressed under a separate program (i.e. Third Party Site Program - not the NIROP Installation Restoration Program).

MPCA Conclusion 3: Between 1941 and 1983, the Navy disposed of an estimated 6,090 to 15, 272 drums of hazardous waste offsite.

Response: The Navy does not agree that the extrapolation method used constitutes a valid basis for determining the actual amount of wastes historically disposed on-site, sent off-site for disposal or discharged to the NIROP's sanitary sewer system.

MPCA Conclusion 4: From the 1940's to October 16, 1969, a period of about 30 years, the Navy disposed of hazardous waste on what is now known as the FMC Hazardous Waste Site.

Response: The Navy agrees. Any references to "offsite" in the IAS pertain to the FMC Hazardous Waste Site.

MPCA Conclusion 5: Not all known Navy documents related to the answers to the answers to the MPCA staff's request for information were provided to the MPCA staff, e.g. employee interviews and aerial photos dated 8/45, 5/4/58, 4/26/62, 5/9/65, 11/13/67, 4/23/69.

Response: Employee interviews referenced have previously been provided under RI reports related to the FMC Hazardous Waste Site. UDLP is willing to allow the MPCA to review aerial photographs if they choose.

MPCA Conclusion 6: The Navy has produced to the MPCA staff all documents relative to the potentially responsible party settlement with UDLP and the production of the IAS that are relevant to an understanding of past disposal practices at NIROP.

Response: The Navy agrees.

MPCA Requests for Further Information:

MPCA Request 1: Please provide the MPCA with copies of all the employee interviews and aerial photographs cited in Mr. Hildre's letter to me dated July 15, 1999.

Response: Employee interviews referenced have previously been provided under RI reports related to the FMC Hazardous Waste Site. UDLP is willing to allow the MPCA to review aerial photographs if they choose.

MPCA Request 2: To the best of the Navy's belief's or recollections, is the information found in Mr. Hildre's letter to me on July 15, 1999 a correct attempt to answer the questions raised in my letter to you dated January 11, 1999 and in my letter to Mr. Hildre and Mr. Patrick K. Morrow dated April 22, 1999?

Response: The Navy agrees.

MPCA Request 3: Does the Navy disagree with any of the MPCA conclusions cited above, and, if so, which conclusions does it disagree with and why?

Response: Please read all responses above on which MPCA conclusions, summaries, or request for information the Navy agrees or disagrees.