



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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August 3, 2001

Mr. Jim Alexander
U.S. Steel Company
One North Broadway Street
Gary, IN 46402

Re: Exempt Construction and Operation Status,
089-11500-00121

Dear Mr. Alexander:

The application from U.S. Steel, received on October 27, 1999, and additional information from a meeting on November 4, 1999, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following Grand Calumet River Sediment Remediation Program, to be located at One North Broadway Street, Gary, Indiana, is classified as exempt from air pollution permit requirements:

A Grand Calumet River Sediment Remediation Program, which will involve the removal of sediments from the Grand Calumet River and the transmission of these sediments to a RCRA Corrective Action Management Units (CAMU), identified as Unit 1 and Unit 2.

Project Background:

In 1990, U.S. Steel entered into a Clean Water Act Consent Decree with U.S. EPA concerning wastewater discharges from the Gary Works facility. Upon completion of the characterization study submitted to U.S. EPA in January 1993, U.S. Steel concluded that the Grand Calumet River and the surrounding environment would best be served by implementing a Sediment Remediation program. As part of the 1998 Clean Water Act Consent Decree, U.S. Steel submitted a Statement of Work for the expanded Grand Calumet River Sediment Remediation Plan to U.S. EPA on July 20, 1995.

Project Details:

The Grand Calumet River Sediment Remediation Program involves removal of non-native sediments from the river channel by hydraulic dredging methods and delivery of the dredge slurry by a pipeline to the CAMU. The program encompasses an approximate 5-mile reach of the Grand Calumet River from the headwater culvert to a point 500 feet upstream of the Gary Sanitary District's outfall. Sediment removal will be limited to the non-native sediment taken from the river channel, with allowances for incidental sloughing from "soft-side" areas of the river bank and approximately 6 inches of overdredging. The approximately 5-mile reach of the Grand Calumet River has been divided into 36 intervals or Transects varying from 500 to 1,000 feet.

The total in-place volume of non-native sediments to be dredged from the Grand Calumet River is currently estimated to be approximately 746,000 cubic yards. This estimate includes the volume of in-place non-native materials, soft-side materials in Transects 26 through 36 that may slough into the river during dredging, and 6 inches of overdredging.

The CAMU will be constructed with two units. Unit 1 will be a 7-acre area which will receive the TSCA and RCRA regulated sediments from Transacts 1 through 11 and Transect 17 Horizon 1. Unit 2 will occupy a 29-acre area and will receive non-native sediments from the open water dredging in Transects 12 through 36.

Non-native river sediment from Transects 1 through 11, which contain TSCA and RCRA regulated sediments, will be hydraulically dredged from within river isolation cells formed by upstream and downstream bulkheads. This river sediment will be dredged and delivered to the CAMU in a slurry through a pipe and be deposited in Unit 1. Sediments in the isolation cells will be removed via two-dredge passes. After the second pass, water is conveyed to a project-specific water treatment plant where it is anticipated the water will undergo carbon treatment prior to discharge through an NPDES outfall. Transects 12 through 36 will be hydraulically dredged during open-channel flow conditions after dredging of Transect 17, Horizon 1 has occurred, and concurrently with Transects 1 through 11. Sediment from 12 through 36 will be conveyed via a pipe and deposited in Unit 2. The effluent from Unit 2 of the CAMU will undergo chemically assisted clarification prior to being discharged through an NPDES outfall.

The following rules or conditions are applicable to the Grand Calumet River Sediment Remediation Program:

(1) 326 IAC 6-4-2 (Fugitive Dust Emissions: emission limitations)

Pursuant to 326 IAC 6-4-2, a source or sources generating fugitive dust shall be in violation of this rule if any of the following criteria are violated:

- (a) A source or combination of sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = 100 (R - U) / U$$

R = Number of particles of fugitive dust measured at downward receptor site

U = Number of particles of fugitive dust measured at upwind or background site

- (b) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in subdivision (1) of this section shall be modified as follows:

$$Pr = (1.5 \pm N) P$$

Where N = Fraction of fugitive dust that is respirable dust; Pr = allowable percent-age increase in dust concentration above background; and P = no value greater than sixty-seven percent (67%).

- (c) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a a sixty (60) minute period.
- (d) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (a), (b), or (c) of this section.

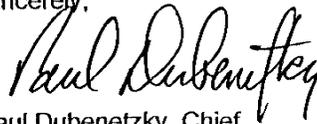
- (2) 326 IAC 5-1-2(2) (Opacity Limitations)
Pursuant to 326 IAC 5-1-2(2)(B) and 326 5-1-2(2)(C) (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
- (a) Opacity from a facility located in Lake County shall not exceed an average of twenty percent (20%), any one (1) six (6) minute averaging period unless otherwise specified in 326 IAC 6-1-10.1.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document. The potential emissions from the Grand Calumet River Sediment Removal Program determined from the submitted calculations include: 1.38 tons per year Volatile Organic Compounds (VOC), 1.38 tons per year Hazardous Air Pollutants (HAPs), and 1.15 tons per year Benzene - the highest single HAP. Therefore, pursuant to 326 IAC 2-1.1-3, the Grand Calumet River Sediment Removal Program is an exempt activity.

U.S. Steel has applied for a Title V permit, which has not yet been issued. All applicable rules and requirements from previously issued permits will be in effect for all of the equipment located at the source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,



Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

GLR
Attachments: Calculations

cc: File - Lake County
Air Compliance - Bob Simmons
Northwest Regional Office
Lake County Health Department
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

U.S. Steel, Co.
Gary, Indiana
Permit Reviewer: Lynn Riddle

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Appendix A:

U.S. Steel calculations are attached to Exemption (173-11284-00005).