

Toby
RECEIVED FEB - 1 1985

UPDATE
UPDATE
UPDATE
UPDATE
UPDATE

Study and Clean Up Program

HYDE PARK LANDFILL

UPDATE
UPDATE
UPDATE
UPDATE
UPDATE

Published By

New York State Department of Environmental Conservation

Division of Solid and Hazardous Waste

HENRY G. WILLIAMS, *Commissioner*

NORMAN H. NOSENCHUCK, P.E., *Director*

ISSUE 5

JANUARY 1985

Discussion Opportunity

Wednesday January 30, 1985

About This Issue

On Wednesday, January 30, representatives of the Environmental Protection Agency (EPA), NYS Department of Environmental Conservation (DEC) and the NYS Department of Health (DOH) will be available at Presidential Lounge, Seton Hall, Niagara University from 2:00 p.m. to 5:00 p.m. and 6:30 to 9:00 p.m. This opportunity is provided to discuss your concerns and ask questions about the Bloody Run Risk Assessment. We are taking advantage of this discussion format instead of the more usual public meeting to make it easier to spend more time and get into greater detail on individual questions and concerns. People unable or uninterested in sitting through long meetings where only a small portion interests them are able to come discuss those aspects they are interested in and leave. Drop in anytime between 2:00 p.m. and 5:00 p.m. or 6:30 p.m. and 9:00 p.m. You don't need an appointment. At about 7:00 p.m. we will give a short informal presentation concerning the Risk Assessment for anyone interested.

If you are interested in discussing the Bloody Run Risk Assessment but are unable to during the times listed above; please call 716/297-9637 before Tuesday, January 29 and we will arrange an appointment for the morning of Thursday, January 31.

This issue of the "UPDATE" has been printed on both yellow and green paper to designate two separate sections.

The yellow pages deal with future meetings, document availability, the permanent leachate collection and storage system, the format of the upcoming discussion sessions, and a short list of words and abbreviations often used in discussion and written material concerning the Hyde Park Landfill investigation.

The green pages deal with the Bloody Run Risk Assessment. The information on these pages is intended to be used as a basis for the discussion sessions scheduled for Wednesday, January 30. In addition to reading this summary of the Bloody Run Risk Assessment, we encourage you to look at the actual Bloody Run Risk Assessment Document available at the EPA Public Information Office, 706 9th Street in Niagara Falls.

The Hyde Park Landfill investigation is a large and complicated program. Many different program parts are being undertaken at the same time. This makes it very difficult to keep you up to date on all aspects of the investigation.

The volume of information makes it impractical and impossible to cover all parts of the project in detail at public meetings, or in these "UPDATES". It is important for you to read some of the reports and documents yourself. Participating in public meetings and discussions and reading the project "UPDATES" will give you a general overview and help you to understand what program aspects are particularly important. However, details and narrowly specific information will be more readily found by taking the time to read the reports and documents yourself.

Please take advantage of the EPA Public Information Office located in Niagara Falls at 706 9th Street, 716/285-8842. All project documents are there for your review. The staff at the office will help you find information and documents you are interested in and help you to interpret information that is difficult to understand.

Public Meeting—February

We will be holding a public meeting late in February. At that time presentations will be made concerning other parts of the Hyde Park Landfill investigation. Included will be the Requisite Remedial Technology (RRT), gorge face seep testing and basement survey.

During the next couple of weeks we would like to hear from you if there are any additional topics you would like to be sure we covered. We will inform you of the date, time, and location as soon as it is finalized.

Definitions

In response to suggestions received from our questionnaire in the last "Update" newsletter, the following list of terms and definitions is presented to help you to better understand some of the terms used in discussions of the Hyde Park cleanup. In future issues we will define additional terms.

Groundwater - water which has percolated down from the ground surface, and flows via gravity through openings in the soil and rock.

NAPL (Non-Aqueous Phase Leachate) - chemicals which do not mix with, and are heavier than, water and migrate from the landfill, via gravity, through cracks in the bedrock.

APL (Aqueous Phase Leachate) - chemicals mixed with water.

Leachate - compounds (mostly chemical) which flow or seep from the landfill mixed in groundwater (ie. APL) or separately (i.e. NAPL).

Overburden - the upper layer of ground which, from top to bottom in this area, contains silts, sands, and clays, and till material deposited by glaciers.

Bedrock - the rock under the overburden which, from top to bottom in this area, consists of Lockport Dolomite; Rochester Shale; interbedded limestone, dolomite, shale, sandstone, and siltstone; and Queenston Shale.

Barrier Collection System - a series of perforated pipes surrounded by porous material which draws and collects leachate as it flows from the landfill.

Wet well - a well where leachate, as it flows by gravity through the pipes, is pumped from the Barrier Collection System.

RRT - (Requisite Remedial Technology)
- the study of the technology most suited for remediation of problems associated with the Hyde Park Landfill and surrounding area.

Indicator chemicals - those chemicals that are known to have been disposed of in the landfill, are the most soluble in water and thus, when analyzed in samples, are "indicators" of migration which has occurred from the Hyde Park Landfill.

Special Construction - defined in the agreement as an activity which involves the excavation disposal, transportation of soils and sediment which may contain chemicals in excess of certain levels or any activity which involves the initial parts of capping.

Permanent Leachate Storage Handling Facility

Why is it needed and what will it do?

The permanent leachate storage and handling facility is designed to receive organic liquids and contaminated groundwater from the subsurface collection systems surrounding the Hyde Park Landfill. The facility will replace the two existing lagoons.

Part of this facility's purpose is to separate the organic liquids from the contaminated groundwater. These two forms of contaminated liquids are separated so that the contaminated groundwater can be trucked to OCC's Buffalo Avenue Plant for treatment and the organic liquids can be stored until they can be incinerated at a permitted incinerator.

The collection and treatment of groundwater is an accepted technique for reducing the potential for further groundwater contamination. The permanent leachate storage facility will also reduce the potential of air emissions. At the present time, the existing lagoons are covered by polyethylene sheets which does not totally prevent the emissions of polluted air into the environment.

What is the general design of the facility?

The permanent leachate storage and handling facility will be located approximately 230 feet west of the Hyde Park Landfill boundary and consist of:

1. An organic decant tank: to separate the organic liquids and contaminated groundwater;
2. A leachate storage tank: to store the contaminated groundwater until it is transferred into trucks;
3. A pump and filter building: to contain the pump which will pump contaminated groundwater thru an initial filter system and then into trucks to go to Buffalo Avenue plant for further treatment.
4. A concrete dike area: to contain liquids in the event of a leak.
5. Adjacent to the dike will be the truck loading platform area and an equipment wash building.

Where do we stand now and what happens next?

All issues regarding construction and installation of the facility have been resolved to satisfaction of the EPA/State. However, additional information regarding soil conditions is still required for final evaluation of the location of the facility. Once this information is provided by OCC, the EPA/State will be prepared to finalize the location and issue a draft permit for the construction and operation of the facility.

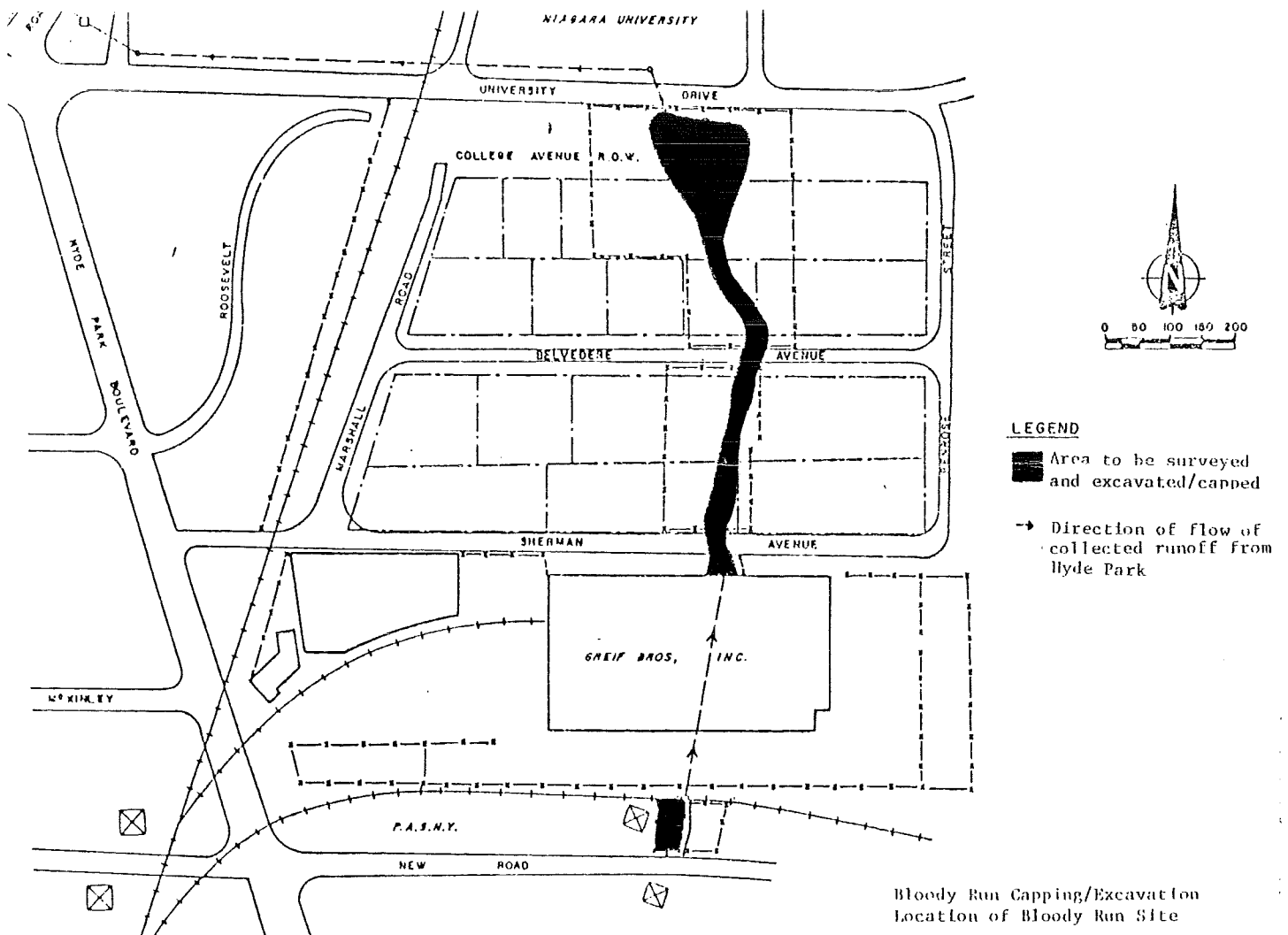
Any unanswered questions left to be resolved?

If there is evidence of contamination at the location of the facility, the requirements for special construction for excavation, transportation and disposal of soils and health and safety must be complied with during the construction of the facility. This could result in delay of the construction of the facility. Therefore, if contamination is found, the location of the facility will be reevaluated.

Bloody Run Risk Assessment

WHERE IS BLOODY RUN CREEK?

Bloody Run is a small creek and a drainage area of approximately 1.6 acres lying north of the Hyde Park Landfill in Niagara Falls, NY. The creek bed of the Bloody Run and the areas adjacent to the stream bed are known to be chemically contaminated. The source of soil and sediment contamination is believed to be the historic surface run off which flowed from the landfill and entered Bloody Run Creek. The Creek flows in a northerly direction in open channels and culverts through a residential area to an underground storm sewer system at University Drive. The Creek then flows through the storm sewer until it empties into a culvert and travels down the Niagara Gorge Face where it enters the Niagara River.



WHY IS THE RISK ASSESSMENT BEING CARRIED OUT?

As part of cleaning up environmental contamination from the Hyde Park Landfill and preventing future contamination, Occidental Chemical Corporation (OCC), New York State and Federal Governments are reviewing possible methods of remediation to prevent public exposure to chemicals in the soil around the Bloody Run Creek drainage ditch and culverts. The Settlement Agreement between EPA/State and OCC requires that OCC evaluate two alternatives for remediating Bloody Run Creek:

- BLOODY RUN EXCAVATION OPTION
- BLOODY RUN CAPPING OPTION

OCC is required to determine the relative health and environmental risks associated with these two options and to compare the effectiveness of the two options in reducing health endangerment. The capping option involves the installation of an impermeable clay cap on Bloody Run after partial excavation and diversion of the natural drainage path. The excavation option requires complete removal of contaminated sediments from Bloody Run, with disposal in the Hyde Park Landfill.

WHO IS CARRYING OUT THE RISK ASSESSMENT?

On October 1, 1982, EPA/State approved OCC's selection of a private consulting firm, A.D. Little, Inc. of Cambridge, Mass. (ADL) to conduct the risk assessment study. To investigate health endangerment and to compare the effectiveness of the two options in reducing health endangerment, OCC and its consultants have prepared a report entitled, "Quantitative Risk for Bloody Run Capping and Excavation Options". (Available for review at the Hyde Park Public Information Office, 706 9th Street in Niagara Falls.)

WHAT IS THIS RISK ASSESSMENT?

A quantitative risk assessment is a procedure for identifying all significant health risks associated with a situation and for using the best available information to estimate the magnitude of these risks. The OCC report is not a full risk assessment, but rather an analysis of relative risks of the two options. It identifies those health risks that would accompany one of the options, but not the other, and estimates the magnitude of these risks. The result is a listing of the risks considered to be unique to each remedial option and an estimate of their magnitude. This analysis, when complete will make it possible for EPA/State to select the remedial option which presents the lesser risk to on-site workers and people living and working in the area.

The procedure begins with identifying all potential ways people may be exposed to contaminants that may have migrated from the landfill to Bloody Run. Potential health risks are determined from the estimate of exposure. The methodology used in OCC's consultant's report for evaluating potential impacts posed by the two remedial options consists of:

- Determining potential contaminant exposure routes for all chemical migration pathways unique to one or the other remedial option;
- Identifying the potential contaminant exposures generated by work activity associated with the remedial actions for workers, and the surrounding population;
- Identifying the number of people at risk for each exposure route;

- Evaluating and determining the probable amount of chemical exposure to the various populations at risk under each option; and,
- Finally, using the preceding information, quantifying the risks posed by each remedial option.

Based on this evaluation, the EPA and the State would then be able to select the option posing the smaller risk.

WHAT HAS HAPPENED SO FAR?

A.D. Little completed a draft of the study which was submitted to the governmental parties on December 6, 1983. The EPA/State completed their review of the draft and sent comments to OCC in late December. In January 1984, ADL submitted a revised draft document to EPA/State. Intensive discussions among ADL, OCC and the EPA/State following the reviews of the revised document have clarified concerns that the EPA/State felt ADL must address in order to properly evaluate these two options. In October 1984, another comprehensive draft report (the most recent) was submitted by OCC to EPA/State.

WHAT DOES THE REPORT CONCLUDE?

The OCC report concludes that the highest risks unique to the excavation option would be associated with ingestion of contaminated soil blown from the site. The next highest risks would be those experienced by workers on the site inhaling contaminant vapors as the contaminated soil is exposed during excavation and burial at the landfill. The report concludes that the highest risk unique to the capping option is to persons eating fish from the Niagara River or Lake Ontario. What does the EPA/State have to say about the report?

The procedures used by OCC's consultant to estimate risks are reasonable to assess the impact of hazardous waste disposal sites. The EPA/State has a number of questions on specific details, but it should be possible to resolve these issues with OCC.

The report leaves two major questions which must be answered before EPA and the State can make a decision on which remedial option will be applied to Bloody Run:

- Is OCC's assumption valid that any material placed in the landfill will be secure from human exposure and loss to the environment?
- Would the contaminants now in the Bloody Run drainage area pose a greater risk if capped in place or if excavated and buried in the landfill?

Finally, the EPA/State believe that the October 1984 version of the Bloody Run Risk Assessment is a significant improvement over the original version. However, the EPA/State believe that a few basic issues are yet to be addressed by A.D. Little and some issues need additional explanation or clarification. We would also like to hear your comments and concerns about the report and look forward to you stopping in to speak with us on January 30.

WHAT HAPPENS NEXT?

EPA/State have made no determination that the October version of the Bloody Run Risk Assessment is complete. We expect, however, to be finalizing our comments on the report quite soon. We will keep you informed about the status of the report.

New York State Department of Environmental Conservation
Bureau of Community Affairs
50 Wolf Road - Room 507
Albany, New York 12233