Gorick C&D Landfill

Kirkwood (T), Broome County, New York
Site No. 7-04-019

RESPONSIVENESS SUMMARY
for
PROPOSED REMEDIAL ACTION PLAN

Public Hearing
March 4, 1992

Issue Date
March 1992

Prepared by:

New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation

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Responsiveness Summary
for the
Proposed Remedial Action Plan
Public Hearing - March 4, 1992
Kirkwood Town Hall

A Public Hearing was held on March 4, 1992 at the Kirkwood Town Hall to gather public comment on the Proposed Remedial Action Plan (PRAP) for the Gorick C&D Landfill, an inactive hazardous waste disposal site being addressed by the State Superfund program. At this hearing the New York State Department of Environmental Conservation made a brief presentation of the results of the Remedial Investigation/Feasibility Study and the PRAP. The PRAP summarizes the nature and extent of contamination at the site, the alternatives evaluated to address the problems identified, and proposes a remedy based on the alternatives evaluated. The proposed remedy for this site is No Further Action, which entails the following: the continued operation of the air stripper constructed on the Town well as an Interim Remedial Measure, monitoring of groundwater at the site, future use restrictions and provision for a review of the existing site conditions a minimum of every five years to determine if the selected remedy is still effective.

A record of the hearing was to have been compiled, however, the stenographer unfortunately did not make the hearing. Fortunately, there was limited public comment at the hearing so NYSDEC staff present were able to take adequate notes. A sign-in sheet identifying those in attendance is included as Attachment 1. The following are the comments received at the Hearing, with NYSDEC's response:

COMMENT - 1: Will there be any study of the other organic compounds, benzene, xylene,etc., which were identified in the drummed waste recovered during the test pit investigation?

RESPONSE - 1: These compounds, while detected in waste materials disposed of in the landfill, have not been identified in the analysis of groundwater or other media sampled at the landfill to date. However, since they have been identified in the landfill they will be considered as potential contaminants and included in the list of analytes to be considered in the development of the long term monitoring program for this site.

COMMENT - 2: Please explain the long term monitoring program, including how many locations will be monitored and how often?

RESPONSE - 2: The long term monitoring program has yet to be developed. This will be the next step in the process, once the final decision on the remedy is made. Typically, the monitoring of these sites is on a yearly basis, however with the proximity of the Town well and the fluctuations in the groundwater elevations observed something more frequent, at least in the short term, is likely. The NYSDEC will work closely with the Town to coordinate the sampling with that required for the operation of the air stripper.

The program will involve the sampling of groundwater from a number of representative wells both upgradient and downgradient of the landfill, as well as in the shallow, intermediate and deep zones. These samples will be analyzed for the contaminants determined to be indicative of materials present in the landfill and which would be expected to be most mobile in the groundwater. The results of each sampling event will be compared to historic results and in this way any change in the levels and migration pathway or patterns of the contaminants identified. In addition to analytical sampling, groundwater elevations will be taken at regular intervals throughout the year. Any significant change in the concentrations or quantity of the contaminants being treated will be noted and additional investigation undertaken as appropriate.

Since the source of the contamination will remain at the site, a review of the effectiveness of the remedy will be required at a minimum every five years. This review will be closely tied to the results of the monitoring program and, should the present situation change significantly, this review could be triggered before the five year interval.

* * * * * *

A thirty day comment period, during which comments on the proposed remedy were accepted, was established as part of the public review of the PRAP. One comment letter was received during this period, which closed on March 22, 1992.

A letter was received during this period from Audrey L. Glover dated March 17, 1992 and was accepted into the record. The following are the comments extracted from this letter which relate to the PRAP followed by the NYSDEC response:

COMMENT - 3: When there is a concern for public health, why did the Board of Health, the State, Town and County allow not one well, but three to be installed in a refuse dump for a municipal water supply?

RESPONSE - 3: As early as 1970 a portion of the property and other properties were evaluated as a potential site for a municipal water supply and in 1977 wells No.'s 1 and 2 were installed. In 1981, TCE was just detectable at 1.6 ppb and the source of TCE was unknown. Since this was significantly less than the NYSDOH standard of 50 ppb in effect at that time and TCE is a commonly used compound in industry, there was no cause for immediate concern. In 1984 Town Well No. 3 was installed because iron buildup greatly reduced the capacity of Town Well No.'s 1 and 2. The first

drinking water standard contravention was in 1987 in which 11 ppb of TCE was identified. This contravened the 10 ppb standard in effect, prior to adoption of the 5 ppb standard in 1989.

COMMENT - 4: Is there not a difference between a refuse dump and an illegal C&D Landfill?

RESPONSE - 4: The term refuse dump is more general than C&D landfill and represents a disposal area where putrescible or non-putrescible material is discarded or rejected as useless or worthless. C&D debris refers to uncontaminated solid waste resulting from the construction, remodeling, repair and demolition or structures and roads, and vegetation from land clearing and related activities. C&D landfill is the formal classification of the Gorick Landfill although the term refuse dump was sometimes used in the past.

COMMENT - 5: In 1981 TCE was detected in the Town wells. Why was this Town allowed to wait nine years before attempting a solution?

RESPONSE - 5: Please see Response to Item 3.

COMMENT - 6: The 1989 emergency air stripper erected by the Town was not sufficient, but yet DEC approved of this project. Why?

RESPONSE - 6: The DEC had no role in the approval of the Town air stripper.

COMMENT - 7: Does the 1989 air stripper work properly today?

RESPONSE - 7: The treated municipal water must meet NYSDOH drinking water standards as enforced by the County Health Department. The DEC has received no reports that these standards have not been achieved in the treated water since the stripper went on-line. The system is still operational.

COMMENT - 8: "Quantities of a foundry sand/ash - like material" - this report should contain on whether or not this material is toxic.

RESPONSE - 8: Section 6 of the report entitled *"Remedial Investigation and Feasibility Study (RI/FS) for the Gorick C&D Landfill"* presents a health analysis of the compounds identified on site. Poly nuclear aromatic hydrocarbons (PAHs) are the primary contaminants identified in the foundry material. PAHs are combustion by-product and, therefore, are very common in foundry ash and industrial environments in general. Appendix P of the RI/FS report provides technical profiles of the various PAH compounds and other compounds identified on site. In general, some PAHs are suspected human carcinogens or are components of other mixtures that have been associated with human cancer, such as tar, soot, coke oven emissions, and cigarette smoke.

COMMENT - 9: "A discrete source was not identified" ... when it comes to a municipal water supply, all sources should be identified and warrants much further testing.

RESPONSE - 9: A primary purpose of the remedial investigation was to identify the source of the TCE contamination in the municipal wells. Groundwater testing, soil gas testing and extensive test pit excavations were performed as source identification activities. These activities confirmed that the TCE source was located in the mid-northern section of the landfill. As indicated in the comment however, the investigation did not pinpoint a specific source (i.e. a drum) due to the large area, depth of fill and the likelihood that the source consists of a small area of contaminated waste or one or two drums containing TCE. Covering the landfill with additional test trenches or borings is infeasible and does not guarantee that such a small source will be located and, as such, was not a primary goal of the investigation.

COMMENT - 10: Surface water ... "not causing significant surface water contamination" ... we are dealing with a major aquifer in this are a and you are going to let dilution take care of pollution for a solution! If this is the case, then this is where a SPDES permit should come into the picture.

RESPONSE - 10: SPDES only applies to point source discharges. Since there is no point source associated with the landfill or remedy, the SPDES program does not apply.

COMMENT - 11: Being a municipal water supply of 669 customers, this should be reviewed on a yearly basis and if this is suppose to be a "remedial Action Plan" the soil contamination should come into the feasibility study. Is not the soils part of this landfill operation area? This being a prime water way aquifer levels should be measured leaving the site.

RESPONSE - 11: Since this remedy results in hazardous wastes remaining on-site above established criteria, Department policy dictates that this remedy must be subject to a minimum five year review of its effectiveness at meeting the remedial goals. However, a long-term monitoring program will be developed which typically involves monitoring on a yearly basis or more frequently (also see response to Item 2). Should the present situation change significantly, this review could be triggered before the five year interval.

Concerning the soils contamination, the only documented hazardous waste disposal at the site is the TCE contamination. The soils contamination is not linked to the TCE contamination and in itself does not fall under the legal definition of a hazardous waste. The surface soil contamination is a separate unit from the groundwater problem. Therefore, the soil contamination will not be addressed under the hazardous waste program. As stated in the PRAP the surface soil issue exist because of improper closure of this landfill and will be addressed under the NYSDEC solid waste program. Proper closure of the landfill will mitigate any health impacts from contact with the surface soils.

"Aquifer levels leaving" the site will be monitored in the long-term monitoring program. TCE levels off site are currently not detectable. The long-term monitoring program is not yet developed but will monitor groundwater downgradient of the site adjacent to the property line. If these levels significantly increase, additional monitoring off site will be evaluated.

COMMENT - 12: When it comes to the cost factor, what has not been taken into consideration is the past monies that have been "flushed down the river" on this project conception. Add those monies, plus present and future costs and ask if that it has all been worth it for 669 water customers out of a community that has a population of approximately 5600? There is a cheaper and safer alternative that has been ignored - use of the water from the City of Binghamton.

RESPONSE - 12: Before implementation of the RI/FS, the nature and extent of contamination in the vicinity of the landfill was unknown. In addition, the public health and environmental risks from the contamination were not well defined. The remedial investigation was performed in order to find answers to these unknowns. Through this study, the landfill as the TCE source was confirmed and the extent of contamination and public and environmental impacts were fully defined. The feasibility study used this information to evaluate the best resolution to the observed problems. Before performance of the RI/FS any remeidation involved a large degree of uncertainty.

A separate feasibility study was performed to evaluate the best Interim Remedial Measure (IRM) to resolve the Town's drinking water problems. This evaluation determined that the installation of an additional air stripper on the Town of Kirkwood's drinking water supply was the most cost effective and feasible alternative. The purchase of water from the City of Binghamton as an IRM was evaluated. Although this IRM would be easily implementable, the supply of water from Binghamton is subject to the water demands of the Binghamton service area, notably the Binghamton Hospital. The water demand of the hospital is given top priority. Water supply to Kirkwood would be disrupted when the hospital reservoir is low and needs refilling. Due to the potential for disruption of the water supply from Binghamton, this IRM could not ensure that Kirkwood would meet its water supply commitments and was therefore rejected.

March 17, 1992

Audrey L. Glover
R.D. 3 Box 3284
Kirkwood, New York 13795

New York State Department
Of Environmental Conservation
Region 7
Kate Lacey
50 Wolf Road
Albany, New York 12233

Subject: Gorick C & D Landfill
Broome County
Town of Kirkwood
Site No. 7-04-019

Dear Ms. Lacey:

Section 2 Site Location and Description:

"These wells supply potable water to the residents of the Town of Kirkwood as well as numerous industrial customers"..

Kirkwood's population is a little over 5,600, there are ONLY 669 water uses! which, include industry. This accounts for only about an eighth of the Town. The money that has been already been thrown into this operation is totally unheard of especially of the consequences. Just on the veraydox system, that has never been used due to corrosiveness, was almost a million dollars!

Section 3 Site History:

There should be a more thorough history of this site, it is my understanding that prior a gravel pit it was farm land. After the gravel was taken out to build section of Interstate 81 they put a Asphalt Plant in also for the work on 81.

Some of this material could partly be a cause or a future problem.

"Although dumping may have occurred on site as early as 1959" ..... this is not sufficient data.

When there is the concern for public health, Then why did the Board of Health, the State, Town and County allow not one well, but three to be installed in a refuse dump for a municipal water supply?????

Is there not a difference between an refuse dump and a illegal C & D landfill???

Why was a refuse permit granted in the first place, this area being, a major aquifer??

Did the present owner charge a fee for disposal of refuse??

Did the present owner charge a fee for the disposal of C & D material???

Did not DEC have a "loophole in the law" when it came to C & D landfill, that if there was no fee, it was not classified?

I have asked these questions back in 1988, and I have received no answers. Please, I would like a response.

At the first meeting on this matter I submitted a Engineering Report with regard to this subject matter, and this information should have been addressed further.

In 1981, even though the 50ppb was below limits, the threat of such a carcinogen should have been a warning to those officials who are responsible to protect the potential health

risks to the community.

Why was this Town allowed to wait NINE years before attempting a solution???

4. Current Status:

The 1989 emergency Air Stripper erected by the Town was not sufficient, but yet DEC approved of this project. Why? According to Town Officials, this was going to solve their problem. An emergency was declared as to not wait for a bidding process, but the emergency process, had problems, therefore, I believe it should have gone out to bid.

Does this 1989 air stripper work properly today??

"Quantities of a foundry sand/ash-like material" - This report should contain on whether or not this material is toxic.

"A discrete source was not identified"; "improper disposal of hazardous waste in the landfill" .....

When it comes to a municipal water supply, all sources should be identified and warrants much further testing.

Surface water..."not causing significant surface water contamination" ....We are dealing with a major aquifer in this area, and you are going to let dilution take care of pollution for a solution! If this is the case, then, this is where a SPEDES permit should come into the picture.

"The State will seek to recover costs it has incurred in the work to date and implementation of the selected remedy".....

These wells should never have been drilled in the first place and had the Town installed the first stripper properly, DEC would have no cost!

I know the law states that the owner of the property is responsible, but this is not your usual case of neglect by the owner. First, you have the Town, second, The Board of Health within the County, and DEC.

The main objective for the wells was to bring industry I am sure. Do these industry supply their own drinking water??

Those Officials and Departments that allowed this to happen in the first place should be the responsible parties.

Alternatives...

As The Town of Kirkwood has a connector with the City of Binghamton, it is this water that should be used, and all wells should remain closed.

By now having two strippers drawing, that makes for more contamination to be drawn and be more active.

7. Summary of the Evaluation Alternatives.....

"Overall Protection to Human Health and the Environment"...

If the title (meant) means anything at all the well would never have been a reality, and now that it is a reality and if there is still any meaning, this site should be closed down, what can be excavated should be removed. No more pollution should be subjected to the aquifer or individuals who are drinking the water even if the standards are within guidelines, you are still subjecting humans to a certain

amount of volatile organic compounds.

"the ability of a pump and treat system to attain this goal is questionable".....

When it comes to the "overall protection to human health and the environment" nothing should be questionable.

Section 8: Government's Preferred Alternative.....

Groundwater monitoring...subject to periodic reviews at least every five years....

Being a municipal water supply of 669 customers, this should be reviewed on a yearly basis and if this is suppose to be a "Remedial Action Plan" the soil contamination should come into this feasibility study! Is not the soil part of this landfill operation area???? This being a prime water way and aquifer contaminants levels should be measured leaving the site.

When it comes to the cost factor, what has not been taken into consideration is the past monies that have been "flushed down the river" on this project conception. Add those monies, plus present and future costs and ask if that it has all been worth it for 669 water customers out of a community that has a population of approximately 5,600??

There is a cheaper and safer alternative that has been ignored - USE THE WATER FROM THE CITY OF BINGHAMTON. And more study should be required as this is the major aquifer that supplies the City. Clean up what can be, do not let anything more go into the Susquehanna River.

I am really disappointed in this DEC Proposed Remedial Action

Plan. I am as well disappointed with the New York State Department of Health for allowing this to go as far as it has gone.

Life and good health cannot be replaced by dollars or by the profits of industry.

Thank you for the opportunity to comment.

Environmentally Concerned,

Audrey L. Glover

Audrey L. Glover