City of Cambridge

IN CITY COUNCIL May 13, 1985

The Committee on Environment held a public hearing on Thursday, April 25, 1985 beginning at 8:15 PM. Present from the City of Cambridge were Vice Mayor Francis H. Duehay, Chairman; Councillor Alice K. Wolf; City Manager Robert W. Healy; Dr. Melvin Chalfen, Commissioner of Health and Hospitals; Everett Kennedy, Commissioner of Public Works; Thomas Scott, Chief of Fire. The topic of the hearing was to discuss the Environmental Assessment of the Proposed Alewife Center Development. Representing W.R. Grace was Mark Stoler, Environmental Counsel for W.R. Grace; Wesley E. Stimpson, Vice President, Haley and Aldrich, Inc.; Dr. Raymond D. Harbison, independent consultant in toxicology.

Vice Mayor Duehay called the hearing to order, introduced the City officials, gave a brief history of the events leading up to report and public hearings, and set the guidelines for the hearing. These guidelines stated that W.R. Grace would make their presentation first, followed by the area residents. Vice Mayor Duehay also noted that the report would be studied by the City, with the City Manager making a report back to the City Council after consulting with appropriate departments heads as well as outside agencies, including the state's Department of Environmental Quality Engineering (DEQE).

Mark Stoler began for W.R. Grace, thanking the Council for the opportunity to present their report. He expected that the testing and analysis would be an on-going process conducted in cooperation with the City. He noted that a copy of the report had been sent to the Environmental Protection Agency (EPA).

The testing was done in several waves beginning in early 1984. The monitoring was continuous throughout that time, with later sampling sites dependent upon initial findings.

W.R. Grace's conclusions are as follows:

- There is no current or potential hazard.

- The testing process will not end with this report, but will continue throughout the construction process.

- A master plan will be developed which will encompass all aspects of the development.

- All test results will be made public.

Stoler stressed four points:

1. There will be continuous monitoring of Alewife Brook and the Whittemore Avenue area to insure that they remain uncontaminated.

2. As construction proceeds, routine geotechnical engineering procedures require additional borings to be done anyway. Therefore, additional sampling and testing can be done at these times.

3. There will be a dust control measures implemented during construction.

4. There will be air sampling conducted during construction so as to test for specific chemicals in the air.

Mr. Stoler emphasized that these measures were not being taken because W.R. grace feels that hazards are present, but simply to provide an added margin of safety and confidence.

Wesley E. Stimpson, Vice President of Haley and Aldrich, a Cambridge based geotechnical firm that did the testing spoke next. He described the site and its history through a slide show that included the following:

- History of the previous buildings, in which the manufacture of chemical compounds was conducted.

- Depicted the areas where the wastes were found. This material was excavated and removed by W.R. Grace, also some material was removed by the MBTA in its Red Line extension Project tunnel construction.

- There are no longer any significant amount of these materilas at those sites.

- Development will take place on seventeen or the twenty-eight acres.

- Presently there are only office and residential buildings on the site along Whittemore Avenue.

- The number of sites sampled was initially twenty-four for soil, thirty-eight for groundwater; then twenty-six more for soil (total of fifty) and seventeen more for groundwater (total of fifty-five).

- A description of soil conditions and composition on the site:

Fill Peat and Silt Fine Sand Sitt Clay	permeability decreases with depth.

- Contaminants appear to move in the "Fine Sand" layer.

- Area shown where volatile organic materials were found in concentrations greater than one in two hundred parts per billion (ppb). This was a very small portion of the entire site. (It was noted that 1 ppb is equalivent to one suqare inch in an area of sixteen square miles.)

- Soil that was visibly contaminated by petroleum products.

- When related to previous usage, these areas were found to be the places where petroleum products were stored. The contamination was most likely due to a leak or spill from storage containers.

- Area where Polycyclic Aromatic Hydrocarbons (PAH) levels exceeded 100 parts per million. These areas also correlated to previous storage areas.

- Ground water testing where contour lines represented concentrations of materials in ppb.

- Volatile organic compounds are concentrated at the western end of the site - mostly acetones.

- Some methylethyl isobutyl ketones.

- Benezene

- Carbon disulfide

- Parkway Pond was the only body of water with volatile organic compounds (acetone at 400 ppb).

- Napthalene (1000-2000 ppb along the western border of the site, otherwise concentrations were less than 10 ppb across the site.)

- No off site testing for groundwater.

- Phalids - less than 200 ppb.

- Formaldehyde at Alewife Brook - both up-gradient and down-gradient from the site, thus these concentrations (120 ppb) cannot be attributed to Grace.

- Reddish brown colors in the water on the site are attributable to Iron Oxide (RUST).

- The pH for the water was 6.0 to 7.0 (7.0 is neutral).

- The ground water is generally from Gerry's Pond south toward Alewife Brook.

- The MBTA tunnel has changed the flow, now drawing ground water to itself from both directions.

- No containments in tunnel water.

- There will be long term monitoring of Alewife Brook to test ground water flow and surface water.

The Committee then heard from Dr. Raymond D. Harbison who is Profesor of Pharmacology and Director of the Division of Interdisciplinary Toxicology at the University of Arkansas for Medical Sciences. Dr. Harbison serves on the Study Review Committee of the National Institute of Occupational Safety and Health (NIOSH) and the editorial boards of the Journal of Teratogenesis, Carcinogenesis and Mutagenesis, and the Journal of Fundamental and Applied Toxicology.

Dr. Harbison, for more than fifteen years, studied the effects of environment toxicants on man and animals. He has taught the National Hazardous Materials Training Course to federal and state environmental protection personnel and worked with EPA and the Department of Justice on Superfund assessment matters.

Dr. Harbison began by stating that he has reviewed all the data and has assessed the risk. His conclusion is that there is not a public health risk at the Alewife Development site. He then used slides to describe the process used to determine the risk.

The slides depicted the following:

- Risk is defined as "the possiblity that something adverse will occur."

- Comparisons of the risks of driving, smoking, canoeing, truck driving, flying.

How was "risk" evaluated. Dr. Harbison needed to know two things:

1) Inherent harm of the chemicals;

2) What type of exposure, if any, is there, and at what levels?

- If there is no exposure, there is no risk.

- Even if there were exposure, the levels are so low they would not be harmful.

- Although there are chemicals in the groundwater, it is not going to be used for drinking.

- Although there are chemicals in the soil, they are not coming into contact with people (no exposure).

- The process of evaluation was to:

    1) Review the toxological literature for each compound;

    2) Do a chemical assessment, which is

        a. identify toxins
        b. evaluate toxicity
        c. obtain a dose/response relationship
        (what concentration does it take to produce an effect)
        d. calculate guidelines

- All substances known to man are poisonous, it just depends on the dosage or concentrations. Aspirin is a good example. Two tables are fine, but one hundred may be deadly.

- All substances are toxic if the concentrations are high enough, or exposure is long enough.

- There are approximately 50,000 chemicals in use today.

- All are in the environment in one form or another.

- Used in manufacturing, industry, residence.

- Also there are 100,000 naturally produced chemicals, some of these (benezene, e.g.) are at the site.

- Many of these substances are used in household products (e.g., phthalates make plastic soft; carbon disulfide is used in the production of synthetic rubber and as a solvent in the manufacture of rayon and nylon; metals are used in paints; polycyclic aromatic hydrocarbons are formed when a steak is charbroiled.)

- The body naturally metabolizes, transforms and excretes these substances.

- Environment Protection Agency (EPA) standards were used in risk assessment and guideline development.

- The risk assessment procedure was:

    1) hazard identification
    2) hazard evaluation (toxicity literature)
    3) evaluate exposure
    4) risk estimation

Slides were then shown describing the concentration of each component on the site, recommended safety concentrations, and comparisions with naturally occurring concentrations. The tables referred to are those in Volume 3 of the Environmental Assessment Report. These tables are toxicant profiles for each of the substances.

Table A	(in ppb)	Acetone
Table B	(in ppb)	Benzene - water guidelines are exceeded slightly on site, but the guidelines are generally lowered by 100 times for a safety factor
Table C	(in ppb)	Carbon Disulfide
Table D	(in ppb)	Formaldehyde - (in the human body anyway - more in an ordinary apple than found on site)
Table E	(in ppm)	Napthalene
Table F	(in ppb)	Polycyclic Aromatic Hydrocarbons (PAH) found in only one sample
Table G	(in ppb)	Phthalates - used in plastics
Table H	(in ppb)	Trichloro Ethane - one sample only found in parking lot - used in mnay household and commercial products (waxes, propellants)
Table I	(in ppb)	Arsenic
Table J	(in ppb)	Lead

Dr. Harbison concluded his presentation by noting that continued monitoring will be done during excavation and construction to insure that the guidelines are not exceeded.

Councillor Wolf asked Dr. Harbinson about risk levels, specifically what risks may arise from these substances in the future. Dr. Harbinson stated that these substances were not new or unique. They have been studied for decades and there probably was not very much that would change in the future.

Dr. Melvin Chalfen, Commissioner of Health and Hospitals for the City, said he will review the report thoroughy with members of the appropriate disciplines. From his brief review he noted that the report appears to be very thorough and well done.

Councillor Wolf asked City Manager Robert Healy if the City or the MBTA had done any assessments. Healy stated that the City has not done an independent study, but the MBTA data was incorporated into this report.

Vice Mayor Duehay pointed out that in all the tables, water appears to be more contaminated than the soil, and asked if the water was just going to sit there or should it all be removed in some way. Dr. Chalfen answered that the flow patterns in general were away from the water supply, but a close look would have to be taken at the new flow patterns caused by the MBTA tunnel construction.

The public was then invited to speak.

Wendy Baruch, 78 Bolton Street, asked to make a presentation on behalf of the North Cambridge Toxic Alert. She was pleased that the report incorporated data back to 1979. Although the report complied a great deal of information, it failed to include a July 14, 1983 report by the NUS Corporation of Bedford, Massachusetts. Baruch submitted a copy of this report for the record.

Baruch noted that there were no records available for the past waste disposal procedure. Two very important chemicals were not tested in the Grace report.

Baruch questioned whether all the chemicals on the site, which had been kept in lined, open-air lagoons, had been completely removed. She submitted a document that she had on loan from the EPA. This cite for this documents is July 1981, TS PIC 1020, "Historical Analysis, Alewife Brook Area, Cambridge, Massachusetts", by Ken Noble, Bionetics Corporation of Warrenton, Virginia, 22186, Contract #68-03-2844. Baruch noted that she found some discrepencies in the data, such as one sample that went to two labs, one lab reporting a concentration of 29 ppb, the other reporting 0 ppb. This points out the migratory nature of the chemicals.

Baruch submitted for the record a letter from Saul A. Slapikoff, Ph.D, Department of Biology at Tufts University. Baruch summarized Slapikoff's letter stated that Dr. Slapikiff felt there was a certain bias to the report, questioning certain statements.

Baruch pointed out that, between the experts, this "technical volleyball can be played indefinitely ". She also cited W.R. Grace's poor history in other locations, particularly Acton. She concluded by urging the Council to continue to work with North Cambridge Toxic Alert, and not to let EPA budget constraints shortchange area residents. She then read the text of Dr. Slapikoff's letter.

Sharon Moran, of 105 Dudley Street, questioned the use of EPA drinking water standards. She also questioned the validity of the federal regulations quoted, believing there were some discrepancies.

Charles Rose, Forest Street, a founding member of North Cambridge Toxic Alert, then spoke. He commended the extensiveness of the report, but asked if this was a case of "the hired chickens watching the fox?" His statements noted the following:

- That Russell Field was not studied enough.

- W.R. Grace has a horrendous reputation, citing previous toxic controversies across the counrty.

- He attended the previous envening's dress rehearsal for this public hearing that was conducted at W.R. Grace.

- He questioned "acceptable levels".

- Noting the amounts of substances that were left after excavation and removal, then what has the neighborhood been exposed to for sixty years when the company was storing and manufacturing chemicals at full capacity.

- Has Grace dumped anyt hing in the City dump, or some other area that has since been covered over?

- We should not take complete stock in federal guidelines., the EPA's record for protecting the public interest is not particularly good.

- He rejects the "acceptable levels" because they were determined by Grace and Grace's consultant.

- He does not question Dr. Harbison's credentials, but his motivation.

- There should be no further permits granted for development on the site until an independent study is done.

- W.R. Grace owes North Cambridge for "chemical trespassing" and should compensate by paying for the testing and cleanup.

Councillor Wolf asked Dr. Harbison what he would have recommended had higher concentrations of toxic substances been found on the site. Dr. Harbinson said that if found in water, the water would have to be pumped out and removed or treated; if found in the soil, the soil would have to be removed and the area covered over to prevent exposure.

Councillor Wolf asked how the contaminants found their way into the water? Dr. Harbison responded that the primary route was leaching through soluble substances. Councillor Wolf asked if Dr. Harbinson had done any other consulting for W.R. Grace. He responded no.

John Matthews, 63 Avon Hill Street, commented on the results of the Grace Commission report, stating that W.R. Grace had received enough tax breaks in the past to be able to pay for studies and cleanups. He urged the people of the United States to maintain vigilence over the chemical industry, and work towards making the tax system more equitable.

Alicia Sinclair, Line Street, stated that she had walked around the area several times, noting that when the mud on her boots dried, it gave off a distinct medical odor. She has felt a burning sensation on her skin from water samples she was collecting. She recently took a sample of orange water, sealed it, then it turned black. She questioned whether something other than formaldehyde was in the mud. She concluded by stating that the site was no place for children to play.

David Clay, 30 Peterborough Street, Boston, asked what, in addition to the individual effects of these substances, would be the combined effect of the many varied substances on the site.

Dr. Harbison said the levels of concentration were too low for any combined effects.

Councillor Wolf aksed if any new chemicals can be created by reactions. Dr. Harbinson said no.

Mark Stoler responded to some of the public's questions, noting that Dr. Slapikoff, in his letter, ultimately agrees with Dr. Harbison's conclusions. He asked to clear up some other issues:

1) W.R. Grace paid 300 million dollars in taxes from 1981 - 1983, and paid 100 million in 1984.

2) The Acton cleanup was done by Grace on their own, not by a judge's order.

3) W.R. Grace has contributed money to the Superfund to cleanup sites across the country and that these contributions are not necessarily an admission of guilt.

4) He noted the company's integrity in all its dealings around the country.

5) Continued monitoring of the site will be done in conjunction with the City and state.

6) The NUS report was referred to in a previous presentation.

7) The fact there are no verifiable records for past storage on the site is a common problem with manufacturing sites.

8) Comments on the Grace Commission report.

Hillary Frank questioned the use of OSHA and EPA benezene guidelines in setting future recommendations.

Dr. Harbison stated in response that there are no EPA air quality standards for air for benezene, but the drinking water standard was approximately 8 ppb.

Dr. Harbison responded to some of the public's comments, noting:

1) That he used standards in the best scientific judgement.

2) He used the most conservative models possible.

3) His process of evaluation of risk was not unique for Grace, he is currently using it in his work in Florida.

4) Dr. Slapikoff essentially agrees with the conclusions of the report.

Vice Mayor Duehay concluded. He will refer the report to the City Manager so that the City Manager can confer with department heads, boards, commissions, Health Policy Board, Scientific Advisory Committee, etc. He asked the Manager to prepare a memorandum outlining a plan for the city to exercise its own independent judgement.

The meeting adjourned at 10:00 PM.

For the Committee,

Franics H. Duehay
Vice Mayor

Chairman
Environmental Committee

Recorded by,

Gerald R. Boyle
Executive Assistant to the Mayor

FHD/smb

Attachments (2)

DEPARTMENT OF BIOLOGY TUFTS UNIVERSITY MEDFORD, MASSACHUSETTS 02155

April 24, 1985

Ms. Wendy Baruch
78 Bolton St.
Cambridge, Ma. 02140

Dear Wendy,

As I told you over telephone, I have not had the time to do a thorough review of that part of Environmental Risk Assessment for the Proposed Alewife Center Development prepared by Dr. Raymond D. Harbison and Research, Testing and Development Corporation for W.R. Grace and Co. thus my comments are not nearly as detailed as I would have liked to make them. Nor have I had the opportunity to assess the adequacy of the literature reviews that serve as the basis for the toxicant profiles in appendices A-H.

My overall impression of the style of the report is that it sets out to minimize concern for the potential effects on human health of the chemicals found on the site. It does this in a number of ways, a few examples of which will suffice for these comments.

One way the report minimizes concern is to devote little space in the sections of the report most likely to be read (section 5), to those chemicals which, because of their concentration and distribution on the site, are most likely to cause concern to neighbors and to workers on the site. For example, formaldehyde which was detected in six soil samples (Table 2-1) at concentrations ranging from 4.4 to 16.6 ppm is given cursory treatment in three brief paragraphs in section 5.4 (p 51) while sixty-six pages are devoted to the toxicant profile of formaldehyde in Appendix D. Further, the statement in section 5.4 that "there are no unequivocal reports" that "high concentrations of formaldehyde are carcinogenic in animals" is not supported by the data described for rats on pp 40-41 of Appendix D.

Similarly, the summary in section 5.7 of the toxicity of phthalates totally ignores the results of animal experiments, presented in Appendix G, that indicate that some phthalates have been demonstrated to be teratogenic, carcinogenic and mutagenic. Positive results in rodents which indicate that DEHP is a hepatocarcinogen are summonarily dismissed as having debatable relevance to humans.

Another example of what I consider a biased way of presenting material so as to minimize concern among readers, occurs in the section on risk assessment, particularly in section 6.2. In this section, Dr. Harbison implies that "the scientific community" (whatever that is) accepts, universally, the proposition that a distinction must be made between chemicals that act as initiators and those that act as promoters (or as genotoxic carcinogens or epigenetic carcinongens) when attempting to assess the risk of cancer in humans exposed to these agents. I would simply point out that this is not a universally held position among genetic toxicologists. Further, the distinction made between genotoxic and epigenetic carcinogens is often blurred by the fact that a number of chemicals apparently act both as genotoxic and epigenetic carcinogens.

While I have serious reservations about the objectivity of Dr. Harbison's report, and as I have indicated above, believe that it is often misleading in its discussion of some of these toxicological literature, I have come to the tentative conclusion that, given the levels and distribution of chemical contaminants on the W.R. Grace site, development of the site, while using the precautions recommended by Dr. Harbison, is unlikely to have deleterious effects on the health of workers on the site or on the health of persons living adjacent to the site.

Sincerely,

Saul A. Slapikoff, Ph.D.

NUS CORPORATION
19 CROSBY DRIVE
BEDFORD, MASSACHUSETTS 01730
(617) 275-2970

INTERNAL CORRESPONDENCE

DRAFT

TO: Rob Palermo, PAGL

DATE: July 14, 1983

FROM: Gerard Porter

COPIES: File

SUBJECT: TDD No. 8304-56, W. R. Grace, 62 Whittemore Avenue, Cambridge, Massachusetts
NUS Job No. 3329

W.R. Grace in Cambridge, Massachusetts has been located at its present address long before State and Federal hazardous waste regulations were enacted. As a result, the site contains numerous areas where hazardous waste had been dumped. In 1980-81, the MBTA built an extension on its rail service. To do this, land had to be aquired from W.R. Grace.

The land that was purchased had lagoons containing acid sludges and sulfuric acid. This material was neutralized and removed by Solid Tech under supervision of the Mass. DEQE so that construction could begin. The construction on the rail is currently underway and is scheduled for completion in the fall of 1984.

At the present time, Gerald Hynes Industries from Boston, Massachusetts is proposing to construct a building on the remainder of the property where waste had been excavated. A telephone conversation with Janet Burns from the Cambridge Conservation Commission has revealed that, before this project is started, Gerald Hynes Industries will do a complete study on groundwater in the area. It is my recommendation that when this report is complete, the NUS/FIT review it to check for any potential hazardous waste problems which may result from excavation of the land for construction of the building. Further recommendations can be made after a review of the study is completed.

Gerard A Porter

Gerard Porter
Environmental Scientist

GP/mth

NUS/FIT TRIP REPORT

SITE: TDD No. F1-8304-56, W.R. Grace & Company
NUS JOB NO.: 3329

LOCATION: 62 Whittemore Avenue, Cambridge, Massachusetts

DATE: June 2, 1983

SITE VISIT PERFORMED BY: Robert S. Palermo

COMMENTS: The following observations were made during the perimeter survey:

1. A large processing plant located at the intersection of Route 16 and Massachusetts Avenue in Cambridge.
2. The plant occupied approximately three blocks.
3. The entire facility is completely fenced.
4. There were no signs of waste disposal or of tanks or drums improperly stored on the grounds.

NOTES:

1.
2.
3.

REFERENCES:

1. EPA Notification Form.
2. DEQE files, Woburn Office, Mr. Dick Chalpin.
3.

mth

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

EPA

REGION	SITE NUMBER (to be assigned by Hq)
I	MAD 048272637

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II *(Preliminary Assessment)*. File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force *(EN-335)*; 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET *(or other identifier)*		
W.R. Grace Cambridge	Harvey Street		
C. CITY	**D. STATE**	**E. ZIP CODE**	**F. COUNTY NAME**
Cambridge	MA	02140	Suffolk

G. OWNER/OPERATOR *(if known)*

1. NAME	2. TELEPHONE NUMBER
Mark Stoler (Lawyer for W.R. Grace)	(617) 876-1400

H. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION A large facility located at the intersection of Rt. 16 and Mass Ave.

J. HOW IDENTIFIED *(i.e., citizen's complaints, OSHA citations, etc.)*	K. DATE IDENTIFIED *(mo., day, & yr.)*
EPA Form 8900-1, Notification of Hazardous Waste Site	6/10/81

L. PRINCIPAL STATE CONTACT

1. NAME	2. TELEPHONE NUMBER
Madeline Snow, Mass., DEQE	(617) 292-5630

II. PRELIMINARY ASSESSMENT *(complete this section last)*

A. APPARENT SERIOUSNESS OF PROBLEM

☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION

☐ 1. NO ACTION NEEDED *(no hazard)*

☐ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR: _____
b. WILL BE PERFORMED BY: _____

☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR: _____
b. WILL BE PERFORMED BY: _____

☐ 4. SITE INSPECTION NEEDED *(low priority)*

C. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE *(mo., day, & yr.)*
Gerard Porter NUS/FIT	(617) 275-2970	6/22/83

III. SITE INFORMATION

A. SITE STATUS

☒ 1. ACTIVE *(Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)*

☐ 2. INACTIVE *(Those sites which no longer receive wastes.)*

☐ 3. OTHER *(specify)*: _____ *(Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)*

B. IS GENERATOR ON SITE?

☐ 1. NO ☒ 2. YES *(specify generator's four-digit SIC Code)*: _____

C. AREA OF SITE *(in acres)*	D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES	
	1. LATITUDE *(deg.-min.-sec.)*	2. LONGITUDE *(deg.-min.-sec.)*
22 acres	42° 23' 45"	70° 08' 30"

E. ARE THERE BUILDINGS ON THE SITE?

☐ 1. NO ☒ 2. YES *(specify)*: Buildings for the processing plant

Continue On Reverse

Continued From Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

A. TRANSPORTER	B. STORER	C. TREATER	D. DISPOSER
1. RAIL	1. PILE	1. FILTRATION	X 1. LANDFILL
2. SHIP	2. SURFACE IMPOUNDMENT	2. INCINERATION	2. LANDFARM
3. BARGE	3. DRUMS	3. VOLUME REDUCTION	3. OPEN DUMP
4. TRUCK	4. TANK, ABOVE GROUND	4. RECYCLING/RECOVERY	4. SURFACE IMPOUNDMENT
5. PIPELINE	5. TANK, BELOW GROUND	5. CHEM./PHYS. TREATMENT	5. MIDNIGHT DUMPING
6. OTHER (specify):	6. OTHER (specify):	6. BIOLOGICAL TREATMENT	6. INCINERATION
		7. WASTE OIL REPROCESSING	7. UNDERGROUND INJECTION
		8. SOLVENT RECOVERY	8. OTHER (specify):
		9. OTHER (specify):	Inactive

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

This site was once a manufacturing plant but is now used for office space. A small laboratory and machine shop are presently being used in the plant.

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☐ 1. UNKNOWN ☐ 2. LIQUID ☒ 3. SOLID ☐ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4. RADIOACTIVE ☐ 5. HIGHLY VOLATILE
☒ 6. TOXIC ☐ 7. REACTIVE ☐ 8. INERT ☐ 9. FLAMMABLE

☐ 10. OTHER (specify): _____

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

No records of past waste disposal practices are available.

2. Estimate the amount(specify unit of measure)of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
(1) PAINT, PIGMENTS	X (1) OILY WASTES	(1) HALOGENATED SOLVENTS	(1) ACIDS	(1) FLYASH	(1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER(specify): Napthalene	(2) NON-HALOGNTD SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER(specify):	(3) CAUSTICS	(3) MILLING/ MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMLTG. WASTES	(4) MUNICIPAL
(5) OTHER(specify):			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER(specify):
			(6) CYANIDE	(6) OTHER(specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER(specify)		

Continue On Page 3

Continued From Page 2

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

Methyl ethyl ketone
Methyl isobutyl ketone
Napthalene

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

A series of unlined lagoons which contained waste for more than 40 years were removed so that an MBTA tunnel could be built.

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD				
2. HUMAN HEALTH	X			A reservior is located within one half-mile of the site.
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY	X			A reservior is located within one half-mile of the site.
6. CONTAMINATION OF FOOD CHAIN				
7. CONTAMINATION OF GROUND WATER	X			Waste stored in unlined lagoons
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA				
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL	X			Waste was stored in unlined lagoons.
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify):				

Continue On Reverse

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

☐ 1. NPDES PERMIT ☐ 2. SPCC PLAN ☐ 3. STATE PERMIT (specify): _____
☐ 4. AIR PERMITS ☐ 5. LOCAL PERMIT ☐ 6. RCRA TRANSPORTER
☐ 7. RCRA STORER ☐ 8. RCRA TREATER ☐ 9. RCRA DISPOSER

☒ 10. OTHER (specify): Temporary storers permit

B. IN COMPLIANCE?

☒ 1. YES ☐ 2. NO ☐ 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number): _____

VIII. PAST REGULATORY ACTIONS

☐ A. NONE ☒ B. YES (summarize below)

In a consent agreement with the Massachusetts D.E.Q.E. and EPA, WR Grace removed sludge from lagoons that were on site.

IX. INSPECTION ACTIVITY (past or on-going)

☐ A. NONE ☒ B. YES (complete items 1,2,3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION
Perimeter Survey	6/2/83	NUS/FIT	To verify existence and location of site.

X. REMEDIAL ACTIVITY (past or on-going)

☐ A. NONE ☒ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION
Sludge excavation	7/30/81	WR Grace	Removal of sludge from lagoons.

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment (Section II) information on the first page of this form.

NATIONAL PRIORITIES LIST
CHECKLIST OF DATA REQUIREMENTS

Site Name: W.R. GRACE, CAMBRIDGE, MASSACHUSETTS, 62 Whittemore Avenue, Cambridge, Massachusetts
TDD No.: F1-8304-56
NUS Job No.: 3329

Notes:

DATA ELEMENT/PATHWAY	Available	Not Appropriate
Ground and Surface Water and Air		
1. Waste physical state	yes	
2. Persistence	yes	
3. Toxicity	yes	
4. Quantity	no	
Ground Water		
1. Monitoring data (if yes, skip 1a, 1b, 1c)	no	
1a. Depth of aquifer	no	
1b. Net precipitation	yes	
1c. Permeability	no	
2. Ground water use	yes	
3. Distance to nearest down-gradient well	yes	
4. Population served by wells within 3 miles	yes	
Surface Water		
1. Monitoring data (if yes, skip 1a, 1b, 1c, 1d)	no	
1a. Slope of terrain	yes	
1b. Rainfall itensity	yes	
1c. Distance to surface water	yes	
1d. Flood potential	no	
2. Surface water use	yes	
3. Critical habitats	no	
4. Population served	yes	
Air		
1. Monitoring data	no	
2. Waste reactivity	yes	
3. Incompatibility	yes	
4. Toxicity	yes	
5. Distance to nearest population	yes	
6. Population within 1 mile	yes	
7. Critical environments	no	
8. Land use	yes	

NATIONAL PRIORITIES LIST
CHECKLIST OF DATA REQUIREMENTS
Page 2

DATA ELEMENT/PATHWAY	Available	Not Appropriate
Fire and Explosion		X
1. Ignition source		
2. Containment		
3. Ignitability		
4. Reactivity		
5. Incompatibility		
6. Distance to population		
7. Distance to off-site building		
8. Distance to sensitive ecosystems		
9. Land use		
10. Population within 2 miles		
11. Buildings within 2 miles		
Direct Contact		
1. Evidence (if yes, skip 1a, 1b)	no	
1a. Accessibility	yes	
1b. Containment	yes	
2. Toxicity	yes	
3. Population within 1 mile	yes	
4. Critical habitat	no	
5. Land use	yes	

City of Cambridge

In City Council.....

The *Committee*

to which

Reports,

REPORT S-366

Committee on Environment

Re: environmental assessment of the proposed Alewife Center Development.

In City Council,

May 13, 1985

Report Placed on File
with Consent Referred to
City Manager for a Report

Copy sent to the City Manager
5/15/85 mh