

EXHIBIT C

ACTIVITY AND USE LIMITATION OPINION

Portion of W.R. Grace & Co.-Conn. Disposal Site
Cambridge, Massachusetts
RTN 3-0277

In accordance with the requirements of 310 CMR 40.1074, this Activity and Use Limitation (AUL) Opinion has been prepared for a portion of the the W. R. Grace Disposal Site with an address at 62 Whittemore Avenue in Cambridge, Middlesex County, Massachusetts, 02140. The Disposal Site consists of the 25-acres of land partially bounded by Whittemore Avenue to the north; Harvey Street and Russell Field to the east; Rindge Avenue to the south; and the Alewife Brook Parkway and a residence to the west (herein referred to as the "Disposal Site"). The Disposal Site includes eighteen (18) parcels of land subject to this AUL (as described below) and a one (1) acre parcel of land, known as One Alewife Center, for which an Activity and Use Limitation was previously recorded on 28 October1999.

The parcels of land subject to this AUL consist of 24 acres, comprised of 18 individual parcels of land, owned by W.R. Grace & Co.-Conn. and the Alewife Land Corporation, as in the Table below (herein after the "Property").

Owner	Parcel(s)	Total Size, Acres	Type
W.R. Grace & Co.-Conn.	16	6.5	Unregistered and Registered
Alewife Land Corporation	2	17.5	Unregistered and Registered

The area subject to this Activity and Use Limitation Opinion consists of the 24-acre Property described above. An AUL will be recorded separately at the Middlesex County South Registry of Deeds for each of the land owners described above. Because it applies to the entire Property, regardless of particular locations or ownership, this AUL Opinion is included in each of the recorded documents. A plan showing the relationship of the Property subject to this AUL to the boundary of the Disposal Site (RTN 3-0277) is attached as Exhibit B to the AUL.

This AUL Opinion is submitted in support of a Class A-3 Response Action Outcome (RAO) Statement and associated DEP Form 1075, "Notice of Activity and Use Limitation" for the Oil and Hazardous Materials at said MCP Disposal Site.

DESCRIPTION OF DISPOSAL SITE

The Disposal Site is listed by the Massachusetts Department of Environmental Protection (DEP) under RTN 3-0277. W.R. Grace & Co.-Conn. is the listed potentially responsible party. The Disposal Site comprises approximately 25 acres of land in total. It includes the entire 24-acre Property (described above) and an adjacent 1-acre property (One Alewife Center). Approximately thirty-five (35) percent of the Disposal Site

is covered by buildings (4-acres or 169,300 ft²) or pavement (5.4-acres or 234,715 ft²). Jerry's Pond is located adjacent to Rindge Avenue on the southern portion of the Disposal Site. It occupies approximately 4 acres. The remaining area of the Disposal Site consist of approximately 12-acres of vegetated area. The vegetated areas, including the area surrounding Jerry's Pond, occupy approximately fifty (50) percent of the Disposal Site and are surrounded by fencing to control access.

PROPERTY HISTORY

In the 1900s, the Boston and Maine Railroad tracks ran through the Property from roughly east to west. In 1919, the Dewey and Almy Chemical Company ("Dewey & Almy") was founded at the Property and began constructing buildings for their rubber product manufacturing processes. In total over the years, 46 buildings historically occupied the Property. The Dix Lumber Company was in operation south of the Boston & Maine tracks. The majority of the buildings historically located south of the Boston & Maine Railroad on Dewey & Almy property were constructed prior to 1949 and the remaining buildings were constructed by 1955.

Grace acquired Dewey and Almy in 1954. The property acquired with this business acquisition included land from the south side of Whittemore Avenue to just north of Jerry's Pond. From 1954 to 1965, Grace also acquired the following properties to achieve the current Property size (Figure 2):

- Jerry's Pond
- Parcel of land between Jerry's Pond and Russell Field Park
- Portion of lot now known as Parcel A (One Alewife Center)
- Parcel north of Whittemore Avenue
- Lot south of the Boston & Maine Railroad tracks, formerly the Dix Lumber Company

During the 1960s and 1970s, the Grace Cambridge facility was used as a headquarters and research facility for the four new divisions of the company, three of which were moved from the Cambridge facility to the Lexington facility in 1976. The demolition of unused manufacturing buildings at the Cambridge property began around 1976 and continued to 1981. The current configuration of buildings on the Property was achieved in 1981. Grace had ceased all manufacturing and processing at this location by 1983. Following the end of chemical manufacturing in 1983, the Boston & Maine railroad spurs were removed from service.

The Massachusetts Bay Transit Authority (MBTA) constructed the Red Line extension through the Grace property from the late 1970s through mid-1980s. The MBTA obtained an easement from Grace to construct train line tunnels and an entrance structure.

The Property is currently occupied by three one to three-story mixed-use buildings (an amalgamation of numerous older buildings which have since been inter-connected) owned by W.R. Grace & Co.-Conn. The remaining area of the property surrounding the buildings is landscaped or paved for access roads or parking.

DISPOSAL SITE AND REGULATORY COMPLIANCE HISTORY

The Disposal Site was initially listed with the DEP as a result of the detection of volatile and semi-volatile organics, petroleum products, and metals during evaluations of subsurface and hydrogeological conditions for the Alewife Center Master Plan Study conducted in 1984 and 1985, and in subsequent investigations conducted in the 1990s. After reviewing the results of subsurface and hydrogeological evaluations conducted in 1984 and 1985, the Department of Environmental Quality Engineering (DEQE) issued a Notice of Responsibility (NOR) on 9 February 1987, notifying Grace that the DEQE had determined that a release of oil or hazardous materials (OHM) had occurred at the Grace property. DEQE assigned Release Tracking Number 3-0277 to the Property and One Alewife Center property (as it is now known) and required additional investigations.

The redesign of the MCP in 1993 allowed for the transitioning of disposal sites listed in the "old" system to the "new" system within a timeframe set forth in the regulations. The Disposal Site was listed as a Confirmed, Non-Priority Disposal Site without a Waiver, according to the 1993 Transition List of "Confirmed Disposal Sites and Locations to be Investigated". In compliance with the Transitions Provisions of the MCP, Haley & Aldrich submitted a Tier II Classification for the Grace property on 4 August 1995.

In October 1996 a new tier classification was completed and it was reconunended that the Disposal Site be reclassified as Tier IC under the MCP. The Disposal Site was granted a Tier IC permit the following year, with an effective date of 13 February 1997. The Tier IC permit allowed for continuing oversight of the Disposal Site by a Licensed Site Professional, however, certain activities on the Disposal Site could require the approval of the DEP. The Tier IC permit is effective for 5 years and therefore expired on 13 February 2002. Two permit extensions have been issued for the Site since February 2002. The current permit (Permit No. 118529) expires on 18 March 2005.

Asbestos was added to the list of contaminants of concern at the Disposal Site in 1998 following the completion of two voluntary field programs at the Disposal Site to investigate for the presence of asbestos in soil. The field programs were completed in response to concerns raised by community members about the potential presence of asbestos at the Disposal Site and potential exposures to such material in the event the Disposal Site was redeveloped. In response to these concerns Grace voluntarily undertook a sampling program to characterize soil at the Disposal Site for the presence of asbestos. Based on the findings of these investigations, a second RTN (RTN 3-17014) was assigned to the Disposal Site in June 1998. In July 1999, RTN 3-17014 was closed by the DEP and the compliance obligations for this RTN were incorporated into existing compliance obligations under RTN 3-0277.

In 1999, the one-acre One Alewife Center property, located at the northwest corner of the Disposal Site, was sold by W.R. Grace to the New Boston Alewife Limited Partnership. Prior to the sale of the Property, an AUL was recorded for the One Alewife Center property at the Middlesex Registry of Deeds on 28 October

1999. The purpose of the AUL was to mitigate unforeseen potential exposures and to maintain a condition of "No Significant Risk" at the One Alewife Center portion of the Disposal Site.

REASON FOR ACTIVITY AND USE LIMITATION

Oil and Hazardous Material (OHM)

Two subsurface exploration programs, conducted in November 1986 and October 1987, provided environmental information on soil and groundwater in the area of proposed building sites at that time. The data from these two reports indicated the presence of volatile and semi-volatile organics, petroleum products, and metals in soil and groundwater at the Disposal Site. Subsequently, supplemental soil investigations were completed at the Disposal Site to evaluate the extent of the petroleum contamination by new analytical method. Total Petroleum hydrocarbon (TPH) evaluations were conducted in 1995 and Extractable Petroleum Hydrocarbons (EPH) were evaluated in 1999.

Since 1998, Grace has conducted a voluntary periodic groundwater monitoring program for the presence of VOCs and naphthalene in groundwater. The levels of contaminants (mainly VOCs and naphthalene compounds) identified in groundwater continue to be below the applicable MCP risk limits.

The Disposal Site has had an industrial use from the early 1920s, when Dewey & Almy began operations at the Disposal Site, until 1983, at which time Grace ceased all manufacturing and processing at the Disposal Site. The Dewey and Almy facility originally manufactured materials used as can sealing compounds, drum and pail cover gaskets, and bottle cap gaskets. The primary raw material was processed rubber. Specific compounds manufactured by Dewey & Almy at the Disposal Site include naphthalene sulfonate (trade name DAXAD), a dispersant known as TDA made from calcium lignosulfonate (by-product of the paper-making industry), and Soda Sorb® (a material used as a carbon dioxide absorbent, lime based).

Based on the historic use of the Disposal Site, the chemical contaminants of concern at the Disposal Site consist of naphthalene, numerous PAHs and phenols, VOCs, petroleum compounds, and metals in soil. The highest concentrations of the contaminants are concentrated in the former manufacturing, chemical usage, and disposal areas which were mainly located in the area of the Disposal Site now occupied by the paved parking lots and/or the vegetated area to the northeast of the MBTA station. In particular, during the time DAXAD was manufactured at the Disposal Site several lagoons were used for waste disposal, as settling ponds, and sources of cooling water. (Contaminated soil was previously removed from the Property by the MBTA in conjunction with the construction of the Red Line extension through the Property) Also during the Dewey & Almy years, petroleum products including unspecified fuel oil, diesel, No. 2 fuel oil, heavy fuel oil, light oil, white oil, and gasoline were stored on-site in nine underground storage tanks (USTS) and four above ground storage tanks (ASTs). In general, the capacity of the tanks ranged from 1,000 gallons to 10,000 gallons, with the exception of one 54,000 gallon fuel oil AST (formerly located northeast of the MBTA station). A majority of the tanks were located near the former buildings (now parking lots and vegetated areas) and were most likely used for heating oil. The known ASTs and USTs have been removed from the Disposal Site.

An Enhanced In-situ Bioremediation remedial program was implemented at the Disposal Site from 2001 to 2003 in the area of the Disposal Site with the highest concentrations of Extractable Petroleum Hydrocarbons (EPH). The Bioremediation successfully reduced EPH levels in soil in the vegetated area of the Disposal Site located immediately to the east of the path from the Property parking lots to the MBTA station.

Asbestos

Asbestos was added to the list of contaminants of concern at the Disposal Site in 1998 following the completion of two voluntary field exploration programs at the Disposal Site to investigate for the presence of asbestos in soil. Since May 1998, a total of 882 soil and split soil samples were collected from the Disposal Site by Grace, the Alewife Study Group, and the City of Cambridge. Of the 882 samples analyzed, 833 samples (COC-33; Grace-745; ASG-55) were analyzed using the EPA Region 1 protocol combined with PLM (using EPA Method 600/R-93-116) and 49 samples were analyzed using TEM (EPA 600/R-93-116-Chatfield Semi-Quantitative).

Based on PLM analysis, 678 samples contained no visible asbestos material, 84 samples contained asbestos at "trace" levels (less than 1%), 71 samples were determined to contain asbestos at 1 % or greater. Therefore, 9% of the soil samples analyzed PLM contained 1 % or more asbestos and 81 % of the samples contained no visible asbestos. Of the 49 samples analyzed by TEM, 31 samples contained no asbestos material, 12 samples contained "trace" levels of asbestos, and 6 samples were determined to contain 1% or greater asbestos. Therefore, 64.6% of the samples analyzed using TEM contained no asbestos material and 12.5% of the soil samples contained 1 % or more asbestos.

The highest levels of asbestos fibers and the most consistent detections of asbestos fibers in soil at the Disposal Site are in those areas in which former buildings were located. The presence of asbestos contamination at the Disposal Site is most likely due to the historic use of asbestos containing construction materials on the Property and the resulting demolition activities associated with the decommissioning of the former Grace facility from 1976 through 1981. The overwhelming fiber type identified at the Disposal Site is chrysotile, which is the most common form of asbestos used in building materials and friction products. The location of the Disposal Site is in an urban environment and in close proximity to the intersection of busy four lane highways. More than likely, asbestos fibers from the brakes of automobiles and trucks also have been deposited on the Disposal Site.

Risk Characterization

In accordance with the MCP, the risks to human health, safety, public welfare, and the environment have been characterized for contaminated soil, groundwater, surface water, and ambient air at the Disposal Site and adjacent properties. Current conditions at the Disposal Site consist of commercial property uses and transient activities associated with the MBTA access building.

Current risks are estimated for the following receptors:

- residents of all ages adjacent to the site
- adult office workers on site (including exposure as children visiting the site prior to working as office workers on the site);
- transient persons (MBTA subway users, pedestrians, and trespassers, including children) during construction
- adult utility workers

For the foreseeable future, the Disposal Site is likely to continue to be used in a manner consistent with its current use as a commercial facility. However, to be conservative and consistent with previous risk characterizations for the Site, the risk assessment considered a hypothetical future use scenario involving large scale excavation of contaminated soil. The scope and size of the scenario evaluated could likely not be constructed at this property in the future due to existing local and state regulations related to zoning, wetlands, and flood plains. Therefore, this scenario likely over estimates risk. Future risks were evaluated for the following future receptors:

- residents of all ages adjacent to the site
- adult office workers on site during construction and for long-term occupancy of buildings on site (including exposure as children visiting the site prior to working as office workers on the site)
- transient persons (MBTA subway users, pedestrians, and trespassers, including children)
- adult utility workers
- children visiting the site (e.g. to retail stores) after construction.
- adult construction workers on site (during construction)

For both current and future conditions, visitors and transient users of the Disposal Site (children and adults) are considered implicitly because risks would be less than for the adjacent resident, utility worker, or future construction worker whose risk are explicitly evaluated.

Exposure scenarios evaluated quantitatively in the analysis are: inhalation of airborne asbestos and incidental ingestion of asbestos in soil; inhalation of vapors emanating from soil, inhalation and ingestion of contaminants in fugitive dust, as well as dermal contact during recreational and hypothetical construction activities.

Several potential exposures were excluded from evaluation under the risk characterization. Exclusion of these scenarios from evaluation requires that the potential exposures be eliminated through the use of an Activity and Use Limitation (AUL), per 310 CMR 40.1012(2). The excluded scenarios are as follows:

- Future residential use
- Exposure to groundwater(direct contact)

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- Future use as schools, playgrounds, day care centers, etc.
- Active recreational uses in unpaved areas
- Vapor intrusion into hypothetical future new buildings.

The risk characterization concludes the following under current conditions of use (commercial property):

- a condition of No Significant Risk (NSR) to human health exists for all receptors evaluated for potential exposures associated with both asbestos and OHM.

A condition of NSR also exists for Public Safety, Public Welfare, and the Environment due to:

- exposure of environmental receptors to site related contaminants is limited.
- there are no conditions that may negatively affect the surrounding community.
- no significant risks to safety were identified to safety under current conditions

For the foreseeable future, the Disposal Site is likely to continue to be used in a manner consistent with its current use as a commercial facility. In this case, risk estimates remain the same or decrease if the soil remains undisturbed or if disturbed soil is covered with clean soil. However, to be conservative and consistent with previous risk characterizations, the risk assessment considered a hypothetical future use scenario involving large-scale excavation of contaminated soil (containing asbestos and OHM) that then remains on the surface. Under the hypothetical construction scenario, the risk characterization concludes the following:

- The incremental cancer risk estimates for the adjacent resident, the office workers, and the hypothetical construction worker potentially exposed to soil at the Site exceed DEP's guidelines for achieving a condition of No Significant Risk due to an assumed presence of asbestos in the exposed soil.
- The characterization of risks to the environment in the future also concluded that exposure of environmental receptors to site related contaminants is limited. Therefore, the risk characterization concludes that the site poses No Significant Risk to the environment.
- The characterization of risks to public welfare concluded that potential odors generated during the excavation of naphthalene contaminated soils could potentially create a nuisance condition. Therefore, the risk characterization concluded that a condition of No Significant Risk to public welfare could not be achieved without mitigating efforts.
- The characterization of risks to safety finds that a condition of No Significant Risk to safety exists at the site in the future (even during large-scale construction) with one exception. If small scale excavations were to be completed at the site over a short period of time in the most contaminated areas of the site, there is the potential for the hypothetical construction worker to be exposed to vapors from naphthalene in soils which might exceed the OSHA PEL for an 8 hour day.

Achieving an RAO without implementation of an AUL is not considered feasible according to MCP criteria. This AUL, in conjunction with the One Alewife Center AUL, is considered appropriate for unforeseen potential exposures and to maintain a condition of "No Significant Risk" at the Disposal Site. The AUL manages potential exposures to soil and groundwater assumed to represent potential future risks associated with potential exposure to asbestos or petroleum and naphthalene in soil. The AUL also manages the exposures not evaluated in the risk characterization. The permitted uses are consistent with the current and reasonably foreseeable uses of the Property (i.e., office, industrial, or retail). Furthermore, identification in the AUL of activities and uses inconsistent with the AUL Opinion and the Obligations and Conditions set forth in the AUL Opinion provide a means for maintaining the assumptions of the risk assessment which rely upon elimination of certain exposure pathways to achieve a level of "No Significant Risk" and is a requirement of applicable MCP criteria.

Based on the above described risk characterizations, permitted activities and uses, inconsistent activities and uses, and obligations and conditions to maintain a level of "No Significant Risk" are as follows:

PERMITTED ACTIVITIES AND USES

The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Property:

- (i) Office, industrial, retail, commercial, or research and development (R&D) uses including similar uses along with associated parking and grounds open to the public;
- (ii) Landscaping and grounds keeping activities, including but not limited to planting of trees and shrubs, installation of signs and fence posts, cutting and raking of grassy areas, and maintenance and resurfacing of parking lots, sidewalks, and driveways, provided these activities do not involve "Intrusive Activity." "Intrusive Activity" as it is used in this document means any activity which involves penetration through the Protective Cover (as hereinafter defined) and excavation of a volume of soil greater than 15 cu. ft);
- (iii) Excavation and subsurface activities associated with limited short term or emergency utility work, provided that such work is conducted in accordance with the soil and wastewater management procedures given at 310 CMR 40.0030;
- (iv) Excavation associated with potential future construction provided that such work is conducted in accordance the provisions of the Section below entitled Obligations and Conditions;
- (v) Activities and uses which are not identified in this Opinion as being inconsistent with maintaining a condition of No Significant Risk; and

- (vi) Such other activities and uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare, or the environment than the activities and uses set forth in this paragraph.

ACTIVITIES AND USES INCONSISTENT WITH THE AUL OPINION

The following activities and uses are inconsistent with this Activity and Use Limitation Opinion, and, if implemented at the Property, may result in a significant risk of harm to health, safety, public welfare or the environment or in a substantial hazard:

- (i) Residential uses;
- (ii) School as defined by 310 CMR 40.0006, kindergarten, day care center, or similar use;
- (iii) Active recreational uses, such as athletic fields or playgrounds, involving more than casual contact with the existing ground; and
- (iv) Use of on-site soils for cultivation of fruits or vegetables destined for human consumption.
- (v) Subsurface activities associated with utility work or future construction which may result in the disturbance, excavation, relocation, or removal of contaminated soils or groundwater at the Property which are not conducted in accordance with the Obligations and Conditions set forth in the Obligations and Conditions below.
- (vi) Construction of occupied structures without first undertaking the evaluation described in Paragraph (iv) below.

OBLIGATIONS AND CONDITIONS

If applicable, obligations and/or conditions to be undertaken and/or maintained at the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion are as follows:

- (i) Maintain the existing top 6 inches of surface soil, pavement and concrete slabs, pavement and concrete slab sub-base materials, structures, topsoil/loam, landscaping or the like (hereinafter the "Protective Cover"). In the event the Protective Cover is degraded or removed, a Protective Cover shall be reinstalled to cover the underlying subsurface soils to prevent contact.
- (ii) Implement a health and safety plan pursuant to 310 CMR 40.0018 developed by a Certified Industrial Hygienist or similar knowledgeable and trained professional, in conjunction with the airborne asbestos

and dust management and monitoring plan described in paragraph (iii) of this Section, in the event of excavation associated with construction or other Intrusive Activities, as defined in paragraph (ii) of the Permitted Activities and Uses, which are likely to involve more than incidental exposure to, or casual direct contact with the subsurface soils, or potential for direct contact with groundwater. The purpose of the plan is to protect health and safety of on-site workers, visitors to the property, and the general public. Excavated materials and dewatering effluent shall be managed in accordance with the soil and wastewater management procedures pursuant to 310 CMR 40.0030.

- (iii) In the event Intrusive Activity is undertaken, implement an airborne asbestos, dust, and odor management and monitoring plan. The plan shall be developed by a Certified Industrial Hygienist or similarly knowledgeable and trained professional. The plan shall require that any Intrusive Activity into the soil at the Property be done in a manner that prevents the liberation of asbestos fibers and/or dust into the ambient air in excess of applicable standards and prevents any potential odors from creating a nuisance condition, per applicable local and state standards. It is envisioned that the plan would require utilization of proactive wetting of the exposed soil and handling techniques which would minimize the potential for dust generation. It is also envisioned that the plan would require the use of excavation techniques and/or odor suppressants intended to mitigate potential odors. The plan would also include a procedure(s) to monitor the level of dust, asbestos fibers, and odors in the air during Intrusive Activities to confirm compliance with the management plan. The management plan would also contain a provision requiring that the Intrusive Activity would be stopped and the area secured if the monitoring plan indicates the level of asbestos fibers, dust, or odors in the air are in excess of applicable limits.
- (iv) In the event additional occupied structures are constructed at the site, an LSP shall evaluate the potential risks associated with the migration of volatile compounds from the subsurface into indoor inhalation of these compounds. If a condition of "No Significant Risk" cannot be demonstrated, measures, such as excavation of contaminated soils or the inclusion of engineered controls (i.e., impermeable vapor barrier and/or sub-slab venting) or similar measures shall be implemented to provide a condition of "No Significant Risk".
- (v) If an Intrusive Activity is undertaken for construction of new subsurface utilities, clean fill materials must be used to backfill around the utilities to cover the underlying subsurface soils, so as to prevent future contact with contaminated soil during utility work.

LSP OPINION

The Activity and Use Limitation Opinion presented herein was prepared by William W. Beck, Jr., Senior Vice President, Haley & Aldrich, Inc. It is this LSP's opinion that a condition of No Significant Risk to health, safety, public welfare, or the environment exists at the Property and the Disposal Site for any foreseeable period of time, as defined by 310 CMR 40.1005, provided that the above requirements are met and maintained.

Signature: _____

Seal:

Date: _____

William W. Beck, Jr.
Senior Vice President
Haley & Aldrich, Inc.
License Number: xxxx