DECLARATION FOR THE
EXPLANATION OF SIGNIFICANT DIFFERENCES

CENTRAL LANDFILL SUPERFUND SITE, OPERABLE UNIT 1

SEPTEMBER 2005

SITE NAME & LOCATION

Central Landfill Superfund Site, Operable Unit 1

Johnston, Rhode Island

IDENTIFICATION OF LEAD & SUPPORT AGENCIES

Lead Agency: **United States Environmental Protection Agency (EPA)**

Support Agency: **Rhode Island Department of Environmental Management (RIDEM)**

STATEMENT OF PURPOSE

This decision document sets forth the basis for the determination to issue the attached Explanation of Significant Difference (ESD) for the Central Landfill Superfund Site (the "Site") located in Johnston, Rhode Island. This ESD focuses on adjustments to the hot spot groundwater treatment component of the Operable Unit 1 (OU 1) remedial action and reflects the changed performance standard for arsenic in groundwater.

STATUTORY BASIS FOR ISSUANCE OF THE ESD

Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), requires that, if the remedial action being undertaken at a site differs significantly from the Record of Decision (ROD) for that site, EPA shall publish an ESD between the remedial action being undertaken and the remedial action set forth in the ROD and the reasons for the changes to the remedial action. Section 300.435(c)(2)(1) of the National Contingency Plan (NCP), and EPA guidance (Office of Solid Waste and Emergency Response (OSWER) Directive 9200.1-23P, July 1999), indicate that an ESD, rather than a ROD amendment, is appropriate where the adjustments being made to the ROD are significant but do not fundamentally alter the remedy with respect to scope, performance or cost. EPA has determined that the adjustments to the ROD provided in this ESD are significant but do not fundamentally alter the overall remedy for the Central Landfill Site with respect to scope, performance, or cost. Therefore, this ESD is being properly issued. In accordance with Section 117(d) of CERCLA and Section 300.825(a) of the NCP, this ESD will become part of the Administrative Record for the Site, and will be available for public review at both the EPA Region 1 Record Center in Boston, Massachusetts and the Marion J. Mohr Memorial Library, 1 Memorial Avenue, Johnston, Rhode Island.

BACKGROUND

The June 1994 OU1 ROD selected a remedial action that will prevent or minimize the continued release of hazardous substances to the groundwater. In summary, the source control remedial action consists of:

- Constructing a multi-layer RCRA C cap over the existing 121 acre Phase I area and incorporating the existing 32 acres of RI Department of Environmental Management approved cap on the side slopes;
- Hydraulic containment and treatment of groundwater in the hot spot area of the landfill and discharging the treated groundwater to either on-site surface water or the Cranston Waste Water Treatment Plant;
- Implementing deed restrictions on groundwater use and land development within property owned by the Rhode Island Resource Recovery Corporation;
- Initiating a long-term program of sampling and analysis of groundwater, surface water and air;
- Conducting a detailed evaluation of the existing landfill gas collection and combustion system; and
- Installing a chain link fence to prevent access.

All the above components of the source control remedial action are either complete or underway with the exception of a treatment system for the groundwater currently being extracted from the hot spot area of the landfill. The OU1 ROD called for on-site treatment of the extracted groundwater using an on-site Ultraviolet/Chemical Oxidation system and discharge of the treated groundwater to either on-site surface water or the City of Cranston Waste Water Treatment Plant.

OVERVIEW OF THIS ESD

Based on information and data generated since the issuance of the June 1994 OU1 ROD, the requirement to treat the groundwater extracted from the hot spot area of the landfill using an on-site Ultraviolet/Chemical Oxidation (UV/OX) System has been modified. Also, after the June 1994 ROD was issued the Safe Drinking Water Act Maximum Contaminant Level (MCL) for arsenic was revised from 50 ppb down to 10 ppb. Performance standards for the source control remedy were based in part on MCLs. This ESD reflects the revised arsenic standard.

Change to the Hot Spot Groundwater Treatment System - A component of the June 1994 OU1 ROD requires on-site treatment of the identified hot spot area of the landfill by extracting and treating the contaminated groundwater using a UV/OX system. Bench scale tests to verify the suitability of a UV/OX system were performed. The bench scale tests indicate that a UV/OX system may be technically feasible, however, these results also indicate that on-site treatment of both organic and inorganic contaminants can be eliminated without affecting the protectiveness of the remedy. Furthermore EPA believes that direct discharge of the extracted hot spot groundwater to the existing City of Cranston Waste Water Treatment Plant is a similar cleanup approach to on-site treatment. This ESD removes the requirement to treat the extracted hot spot groundwater using an on-site UV/OX system.

Change to the Performance Standard for Arsenic - The 1994 OU1 ROD identified MCLs for the purpose of measuring the performance of the OU1 remedy. The OU1 remedy is expected to prevent groundwater exceeding MCLs from migrating beyond the compliance boundary (edge of the waste management area) for the Site. The MCL for arsenic was revised from 50 ppb down to 10 ppb as a result of an amendment to the Safe Drinking Water Act. Because the goal of this remedy is to prevent contaminated groundwater above MCLs from migrating beyond the edge of the waste management area where groundwater is federally classified as a current or potential drinking water source, the compliance boundary performance standard for arsenic is being changed from 50 ppb to 10 ppb.

DECLARATION

For the foregoing reasons, by my signature below, I approve the issuance of an Explanation of Significant Differences for the Central Landfill Superfund Site in Johnston, Rhode Island, and the changes stated therein.

Susan Studlien

Susan Studlien, Director
Office of Site Remediation and Restoration

09/30/05
Date

EXPLANATION OF SIGNIFICANT DIFFERENCES

Central Landfill Superfund Site, Operable Unit 1
Johnston, Rhode Island

September 2005

I. INTRODUCTION

A. SITE NAME & LOCATION

Site Name: Central Landfill Superfund Site, Operable Unit 1

Site Location: Johnston, Rhode Island

Central Landfill Superfund Site

B. LEAD & SUPPORT AGENCIES

Lead Agency: United States Environmental Protection Agency (EPA)

- *Contact: James Brown, EPA Remedial Project Manager, (617) 918-1308*

Support Agency: Rhode Island Department of Environmental Management (RIDEM)

- *Contact: Gary Jablonski, RIDEM Project Manager, (401) 222 -3872*

C. LEGAL AUTHORITY FOR ESD

Under Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9617(c), Section 300.435(c) of the National Contingency Plan (NCP), 40 C.F.R. 300.435(c)(2)(1), and U.S. Environmental Protection Agency (EPA) guidance (Office of Solid Waste and Emergency Response [OSWER] Directive 9200.1-23P), if the EPA determines that differences in the remedial action significantly change but do not fundamentally alter the remedy selected in the Record of Decision (ROD), with respect to scope, performance, or cost, the EPA shall publish an Explanation of the Significant Differences (ESD) between the remedial action being undertaken and the remedial action set forth in the ROD and the reasons such changes are being made.

D. SUMMARY OF CIRCUMSTANCES NECESSITATING THIS ESD

This ESD is being issued to explain modifications to the selected remedy as set forth in the June 17, 1994 ROD for Operable Unit 1 (OU1) at the Central Landfill Superfund Site (the "Site"). A component of the June 1994 OU1 ROD requires on-site treatment of the groundwater extracted from the hot spot area of the landfill by treating organic contaminants using a Ultraviolet/Chemical Oxidation (UV/OX) system and inorganic contaminants using chemical precipitation/sand filtration . Bench scale tests to verify the suitability of a UV/OX system were performed in 2005. The bench scale tests indicate that a UV/OX system may be technically feasible; however, these results also indicate that onsite treatment of both organic and inorganic contaminants can be eliminated without affecting the protectiveness of the remedy. Furthermore EPA believes that direct discharge of the extracted hot spot groundwater to the existing City of Cranston Waste Water Treatment Plant is a similarly effective yet less costly approach to on-site treatment of hot spot groundwater.

In addition, the 1994 ROD for OU1 identified Safe Drinking Water Act Maximum Contaminant Level (MCLs) as action-specific applicable or relevant and appropriate (ARARs) standards for the purpose of measuring the performance of the OU1 remedy. The OU1 remedy is expected to prevent groundwater exceeding MCLs from migrating beyond the compliance boundary (edge of the waste management area) specified for the Site. Since EPA issued the 1994 ROD, the MCL for arsenic has been lowered from 50 ppb down to 10 ppb. This ESD changes the compliance boundary performance standard for arsenic from 50 ppb to 10 ppb. This ESD complies with all the other state and federal ARARs identified in the 1994 ROD for OU1.

E. AVAILIBILITY OF DOCUMENTS

This ESD and supporting documentation shall become part of the Administrative Record for the Site. The ESD, supporting documentation for the ESD, and the Administrative Record are available to the public at the following locations and may be reviewed at the times listed:

U.S. Environmental Protection Agency
Records Center
1 Congress Street
Boston, MA 02114
(617) 918-1440
Monday-Friday: 9:00 am - 5:00 pm; (closed first Friday of every month and federal holidays)

Marion J. Mohr Memorial Library
1 Memorial Avenue
Johnston, RI 02919
(401) 231-4980
Monday-Thursday: 9:00 am – 8:00 pm
Friday: 9:00 am – 6:00 pm
Saturday: 9:00 am – 5:00 pm

II. SUMMARY OF SITE HISTORY, CONTAMINATION PROBLEMS AND SELECTED REMEDIES

A. SITE HISTORY

The Central Landfill Superfund Site (the "Site") is a 154-acre licensed landfill in the central portion of a 610-acre parcel in Providence County at 65 Shun Pike, Johnston, Rhode Island. The Central Landfill is also an active waste disposal facility and is the largest waste disposal facility in Rhode Island, servicing the majority of communities in the State. The Landfill has been owned by the Rhode Island Resource Recovery Corporation (RIRRC) [formerly the Rhode Island Solid Waste Management Corporation (RISWMC)] since 1980. Prior to 1980, the Site was owned by the Silvestri Brothers and used as a combination sand and gravel/quarry stone operation (1952 to 1955) and as a refuse burning dump (1955 to 1962). The Site has been used as a solid waste disposal area since 1962.

During the mid to late 1970's an approximate 0.5 acre area, located within the Phase 1 landfill area, was used for disposal of large volumes of liquid industrial waste by the Silvestri Brothers. This area is referred to as "the hot spot". Wastes disposed of include aqueous solutions of latex waste, acid waste, corrosive waste, water soluble oils, waste solvents such as methylene chloride, toluene, 1,1,1-trichloroethane, and tetrachloroethylene.

The entire Site was added to the NPL in June 1986. A Remedial Investigation and Feasibility Study (RI/FS) began in April 1987 during which the project was divided into Operable Units 1 and 2. OU1 deals with controlling the source of contamination at the Site and OU2 addresses off-site migration of contamination. The OU1 RI/FS was completed in December 1993 and a Record of Decision (ROD) was signed in June 1994. The OU2 RI/FS was completed in March 2001 and a no further action ROD was signed in September 2002. This ESD represents a significant change to a component of the OU1 ROD for source control. For further discussion of Site History, see Section 2.1 of the December 1993 Feasibility Study Report.

B. CONTAMINATION PROBLEMS AND SITE RISKS

Groundwater classification at and beyond the edge of the waste management area is Federal Class II, current or potential drinking water. The majority of the groundwater in the vicinity of the landfill has been classified by the state as GA, except for the area immediately surrounding and below the licensed landfill. The groundwater below the Site has been classified as GC – suitable for certain waste disposal activities. The area immediately beyond the edge of the waste management area has been classified as GB for a distance of 100 feet in the upgradient direction, and the closest of the following in the downgradient directions: property boundary, surface water

body or wetland, or 500 feet from the landfill boundary. The principal threat at the Site continues to be direct contact with and future ingestion of contaminated groundwater. The remedial action objectives (RAOs) in the ROD also remain unchanged. The groundwater RAOs require that the remedy minimize risk to human health from future consumption of and direct contact with groundwater and minimize migration of contaminated groundwater so that it is not injurious to aquatic ecological systems in receiving water bodies. See below for all RAOs.

Groundwater is contaminated with organic compounds such as benzene, chlorobenzene, toluene, vinyl chloride, methyl ethyl ketone, bis(2-ethylhexyl)phthalate and 1,2-dichlorobenzene, and heavy metals including arsenic, beryllium, cadmium, lead, manganese, and vanadium. High concentrations of these contaminants are found in the hot spot area of the Site.

The calculated risks at the Site are almost solely attributable to ingestion of groundwater. The carcinogenic risks associated with ingestion are primarily from five (5) of the contaminants of concern with the highest cancer risk from the inorganic compound arsenic, and the non-cancer risks from the inorganic contaminant manganese.

C. SUMMARY OF SELECTED REMEDY

The OU1 Record of Decision (ROD) for Central Landfill was signed on June 17, 1994. The remedial action objectives (RAOs) listed in the ROD are:

- Minimize the effects of landfill contaminants on groundwater quality; specifically, reduce to a minimum the amount of precipitation allowed to leak through the waste column and infiltrate to the groundwater;
- Eliminate future risks to human health through direct contact with landfill contaminants by maintaining a physical barrier;
- Minimize migration of contaminants in groundwater so that groundwater is not injurious to the aquatic ecological system of receiving water bodies (Upper Simmons Reservoir, Cedar Swamp Brook, and Almy Reservoir);
- Minimize risks to human health associated with potential future consumption of and direct contact with groundwater;
- Comply with state and federal applicable or relevant and appropriate requirements (ARARs); and
- Minimize potential impacts of implementing the selected source control alternative on adjacent surface waters and wetlands.

The selected source control remedy for Central Landfill , as identified in the OU1 ROD, consisted of the following components:

- Constructing a multi-layer RCRA C cap over the existing 121-acre Phase I landfill area and incorporating the existing 32 acres of RIDEM approved cap on the side slopes;

- Hydraulic containment and treatment of groundwater in the hot spot area of the landfill using chemical precipitation/sand filtration to address the inorganics and an Ultraviolet/Chemical Oxidation system to address the organics. Treated groundwater would be discharged to either on-site surface water or the Cranston Waste Water Treatment Plant;

- Implementing deed restrictions on groundwater use and land development within property owned by the RIRRC;

- Initiating a long-term program of sampling and analysis of groundwater, surface water, and air;

- Conducting a detailed evaluation of the existing landfill gas collection and combustion system;

- Installing a chain link fence to prevent access; and

- Conducting five year reviews.

Since the OU1 ROD was issued, all the above components of the source control remedial action are either complete or underway. Central Landfill has continued to operate as a solid waste landfill. As provided for in a 1996 Consent Decree and Scope of Work entered into between EPA and RIRRC, an impermeable barrier has been constructed between the 121-acre Phase 1 landfill area and the Phase 2 portion to allow continued landfilling but also to minimize precipitation and runoff from entering the uncapped portions of the Phase 1 area (which is subject to the OU1 ROD remedy). This impermeable barrier consists of a geosynthetic clay liner, 12" drainage sand layer, 6" plantable soil layer, and permanent vegetation. A "shiplap barrier" (a leachate diversion system), consisting of geosynthetic clay and sand, had been previously placed along the interface of the Phase 1 and Phase 2 areas. Construction of the final capping portion of the remedy is expected to be completed in 2005.

In addition, as part of its expansion efforts (now spanning five phases), RIRRC constructed a leachate pretreatment system that collects and treats leachate from these expansion phases of the landfill. The leachate pretreatment system consists of chemical precipitation to remove metals before being discharged to the Cranston Waste Water Treatment Plant (Cranston Facility). Groundwater is currently being extracted from the hot spot area of the landfill and discharged directly to this leachate pretreatment system.[1] RIRRC may ultimately dismantle the leachate pretreatment system if their own studies indicate that pretreatment of the leachate is no longer necessary to meet the Cranston Facility's pretreatment requirements. As explained below, the hot spot groundwater does not require pretreatment and can be directly discharged to the Cranston Facility upon extraction.

Deed restrictions and a long-term groundwater, surface water and air monitoring program are in place. As part of the OU1 remedy, the RIRRC filed a Declaration of Covenants and Environmental Protection/Conservation Easements on property it owns at the 612-acre Facility. This Covenant prohibits the use of groundwater except for remediation purposes, prohibits the

[1] EPA understands that RIRRC's pretreatment permit will be revised to reflect the gallons per day of leachate that the RIRRC currently plans to send to the Cranston POTW.

installation of groundwater wells or the use of existing groundwater wells and prohibits the alteration of the groundwater flow in any way. Further, the Town of Johnston adopted a Town Ordinance that, among other things, prohibits the use of groundwater wells and prohibits the Building inspector from issuing permits for the construction of groundwater wells in any location where access to Town public water is available and where the well or proposed well is located in certain described areas.

The evaluation of the existing landfill gas collection and combustion system is underway and will be completed this year. Access to the site is controlled by a combination of fencing and on-site security, and the first five-year review was conducted in 2003. The five-year review concluded that the OU1 remedy is expected to be protective of human health and the environment upon completion, and in the interim, exposure pathways that could result in unacceptable risks are being controlled. Institutional controls to prevent consumption of groundwater and prevent activities that would compromise the integrity of the cap along with access restrictions are in place and are successfully preventing exsposures.

A ROD for OU2 was issued in September 2002 that evaluated off-site migration of contamination. The human health and ecological risk assessments conducted as part of the OU2 investigations did not show any risks that warranted action under Superfund. The OU2 ROD concluded that no further actions were necessary other than those required by the OU1 ROD.

III. BASIS FOR THE DOCUMENT

A. Basis of Change to the Hot Spot Groundwater Treatment System

As required by the 1994 ROD, treatability studies in the form of bench scale tests have been performed to verify the suitability of a UV/OX system to treat the groundwater extracted from the hot spot area of the landfill. UV/OX employs a chemical reaction (oxidation) to convert the hazardous organic contaminants to nonhazardous or less hazardous compounds by introducing hydrogen peroxide, ozone, or both into the contaminated water in the presence of ultraviolet light (UV). If the oxidation reaction is carried to completion, the end products from the oxidation of the organic contaminants are primarily carbon dioxide and water. The bench scale tests indicate that the UV/OX system may be technically feasible, however, these results also indicate that direct discharge of the extracted hot spot groundwater to the Cranston Waste Water Treatment Facility is a similarly effective yet less costly approach for treatment of the organics and inorganics for the reasons set out below.

1. **<u>The UV/OX system does not treat the inorganic contaminants which are the principal threats to consumption of contaminated groundwater at the Site.</u>**

   Two inorganic contaminants at the Site, arsenic and manganese, comprise over 95% of the calculated risks associated with ingestion of contaminated groundwater at the Site. Bench scale studies have shown that nearly 100% of these inorganics pass through the UV/OX system essentially untreated. The UV/OX pretreatment steps (filtration and chemical precipitation) called for in the 1994 ROD would remove a significant percentage of the inorganic contaminants. However, a review of the Cranston Facility's treatment operations (primary settling, aeration and secondary settling) shows that the Cranston Facility essentially performs the same function as the filtration and chemical precipitation called for in the 1994 ROD for the inorganics. Since the ROD was issued, as part of the landfill expansion, the Site owner has also put in place the infrastructure necessary to pre-treat and transport the leachate collected from the landfill to the

Cranston Facility . The groundwater extracted from the hot spot area of the landfill could use this same system of conveyance to the Cranston Facility for treatment of the inorganic contaminants resulting in significant cost savings.

The lower risk organic contaminants, along with the higher risk inorganics, will also be captured in the extracted groundwater and sent to the Cranston Facility. The levels of the organic and inorganic contaminants will be low enough to be addressed by the Facility's treatment processes before discharge in accordance with the Facility's discharge permit.

2. **Significant loss of volatile organic compounds (VOCs) occur prior to organic contaminant destruction by the UV/OX system.**

To effectively destroy organic contaminants, groundwater delivered to the UV/OX system needs to be extremely clear. The groundwater pumped from the hot spot area of the landfill requires filtration, at a minimum, to produce a water clear enough to be treated with a UV/OX system. Bench scale studies have shown that nearly 50% of the VOCs are removed during the filtration step and therefore not destroyed by the UV/OX system. In addition, these studies demonstrated that, due to the high iron concentration in the groundwater (that would interfere with contaminant destruction by the UV/OX system), it is likely that in addition to filtering, pre-treatment of the hot spot groundwater would also require an iron precipitation step. This chemical precipitation step would result in even more losses of VOCs prior to treatment within a UV/OX system. Bench scale studies have also shown that there are competing non-target constituents in the groundwater, with high UV absorbance, that would result in a further decrease in treatment efficiency. To optimize treatment efficiency, reducing these interferences will likely require an additional pretreatment step resulting in further losses of VOCs prior to destruction. It was also calculated that transport of the extracted groundwater approximately 2,200 feet to the point of treatment and storage of the extracted groundwater would also result in additional losses of VOCs through volatilization. Consequently, the need for the pretreatment steps outlined above and the associated losses of the VOCs prior to destruction in the UV/OX treatment step, calls into question the cost-effectiveness of the UV/OX system.

3. **Operation of an UV/OX system poses significant technical challenges.**

A UV/OX system may be technically feasible, however, significant challenges will likely be encountered during full scale operations of the pretreatment and UV/OX components of the treatment system. Due to the innovative nature of the UV/OX treatment system, the system will most likely require periodic shut downs to resolve these operational issues. During these shut down periods, pumping from the hot spot area of the landfill would stop, resulting in a temporary loss of hydraulic containment which would be inconsistent with the RAO to minimize migration of contaminants in groundwater beyond the edge of the waste management area. In contrast, the Cranston Facility operates 24 hours per day 7 days per week without interruption, making it more reliable.

B. Basis for Change to Arsenic Performance Goal

The 1994 ROD for OU1 identified MCLs as action-specific ARARs for the purposes of measuring the performance of the OU1 remedy. The OU1 remedy is expected to prevent groundwater exceeding MCLs from migrating beyond the compliance boundary (edge of the waste management area) for the Site. In 1996, the Safe Drinking Water Act was amended and required EPA to review drinking water standards for arsenic and propose a new MCL. Through proper rulemaking, the MCL for arsenic in

drinking water was changed from 50 ppb down to 10 ppb. Because groundwater at and beyond the compliance boundary at Central Landfill is federally classified as current or potential drinking water, the compliance boundary performance standard for arsenic is being changed from 50 ppb to 10 ppb. The change to the arsenic MCL affects only the performance time line, not the protectiveness of the remedy in that concentration levels need to fall to the new standard of 10 ppb at the compliance boundary. In the interim, because institutional controls prohibit the use of groundwater, the remedy remains protective.

IV. DESCRIPTION OF SIGNIFICANT DIFFERENCES

The proposed modifications to the remedy are summarized below.

A. Change to the Hot Spot Groundwater Treatment System

Original Remedy

The original remedy is described in Section II.C. of this document. The subject of this ESD is the elimination of the on-site treatment system for the groundwater extracted from the hot spot area of the landfill. The 1994 OU1 ROD called for on-site treatment of inorganics by sand filtration and chemical precipitation and a UV/OX system to destroy the organics associated with the hot spot groundwater. The 1994 ROD envisioned the following on-site treatment system:

- The extracted hot spot groundwater would first be sent to an equalization/settling tank to allow mixing and equalization of the flows from the extraction well(s).
- Extracted groundwater would then be treated by sand filtration/chemical precipitation for the removal of metals (primarily iron and manganese), and other dissolved inorganics; and
- After groundwater is treated to remove the inorganic contaminants, the organic contaminants will be treated using a UV/OX system.
- The effluent from the UV/OX system would be discharged to either on-site surface water or the Cranston Waste Water Treatment Plant.

Modified Remedy

The modified remedy will not require an on-site UV/OX system to treat the organic contaminants (primarily VOCs) in the groundwater extracted from the hot spot area of the landfill. The extracted hot spot groundwater will receive the following treatment in lieu of an UV/OX system.

- Although pretreatment is not required, the extracted hot spot groundwater will first be sent to an existing on-site leachate pretreatment system for as long as the system is in place.
- The effluent from the leachate pretreatment system, along with the extracted hot spot groundwater will continue to be sent to the City of Cranston's Waste Water Treatment Plant where inorganics and the remaining organics will be treated. If the existing on-site leachate pretreatment system is dismantled by RIRRC in the future, the extracted hot spot groundwater will be discharged directly to the Cranston Facility.

B. Adjustment to Arsenic Performance Goal

Original Remedy

The compliance boundary performance standard for arsenic was 50 ppb.

Modified Remedy

The new compliance boundary performance standard for arsenic is 10 ppb.

C. Summary Of Costs

The elimination of the UV/OX component will reduce the present worth cost of the remedy by approximately $4,050,000.

V. SUPPORT AGENCY COMMENTS

The State of Rhode Island has participated with the EPA in reviewing the modifications to the remedy described herein and concurs with this ESD. The Rhode Island Department of Environmental Management letter of concurrence is attached to this ESD.

VI. STATUTORY DETERMINATIONS

EPA believes that the modified remedy remains protective of human health and the environment, complies with all Federal and State requirements that are applicable or relevant and appropriate to this remedial action, meets the remedial action objectives specified in the ROD, and is cost-effective.

VII. PUBLIC PARTICIPATION COMPLIANCE

In accordance with Section 117(d) of CERCLA and Section 300.825(a) of the NCP, the ESD and supporting documentation shall become part of the Administrative Record for the Site. This ESD and the Administrative Record are available for public review at the locations and times listed in Section I(5) above. A public notice, which summarizes the modification to the remedy as set forth in the ESD shall be published in a local newspaper of general circulation following the signing of this ESD.

SDMS DocID 237037

Superfund Records Center
SITE: Central Ldfl
BREAK: 5.1
OTHER:

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

16 September 2005

Ms. Susan Studlien, Director
U.S. EPA – New England Region
Office of Site Remediation and Restoration
One Congress Street
Suite 1100 (HBO)
Boston, MA 02114-2023

RE: Central Landfill Superfund Site, Operable Unit 1
Johnston, Rhode Island

Dear Ms. Studlien:

The Department has conducted a review of the most recent Draft Explanation of Significant Differences (ESD), dated September 2005 for the Central Landfill Superfund Site located in Johnston, Rhode Island. Pursuant to this review, our agency is willing to extend our concurrence with the ESD with the following two stipulations noted below:

- The current institutional control on the groundwater is in the form of a Town Ordinance, not a deed restriction, on the land parcels not owned by RIRRC. As a result, to ensure permanency of the remedy, if the ordinance is repealed or amended at any time in the future the RIRRC, under the OU1 Consent Decree, is responsible for implementing additional institutional controls such as formal deed restrictions that run with the land in question; and
- If Cranston POTW is unable to accept the Hot Spot Area groundwater at some point in the future it will be RIRRC's responsibility to implement an alternate system to treat the groundwater to all applicable Federal and State standards.

If you have any questions please contact me at (401) 222-2771.

Sincerely,

W. Michael Sullivan, Director
Rhode Island Department of Environmental Management

cc: Terry Gray, RIDEM
Leo Hellested, RIDEM
Matthew DeStefano, RIDEM
Gary Jablonski, RIDEM
Mike Jasinski, EPA
James Brown, EPA

ESD conc ltr

30% post-consumer fiber