STATEMENT OF BASIS

University of Maryland
College Park, MD

EPA ID # MDD 980829873

I. Introduction

The University of Maryland (the Permittee), College Park Campus (the Facility) is subject to Corrective Action under the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (RCRA), 42 U.S.C. §§ 6901-6992k. The United States Environmental Protection Agency (EPA) is proposing to reissue the Facility's RCRA Corrective Action permit and incorporate the final Corrective Action remedy for the Facility into the permit. This Statement of Basis identifies the proposed final Corrective Action remedy for the Facility and explains the reasons for the proposal. EPA is soliciting public comment prior to making a final corrective action decision with respect to the permit renewal and proposed final remedy.

The Corrective Action Program is designed to ensure that facilities have investigated and corrected releases of hazardous waste or hazardous constituents into the environment. For more information on RCRA Corrective Action, please visit Region III's website at www.epa.gov/reg3wcmd/correctiveaction.htm. Region III is using the administrative procedures found in 40 C.F.R. Part 270 and 40 C.F.R. §§ 124.6-.8 to solicit public comment prior to making its final Corrective Action decision for the Facility.

II. Facility Background

The Facility is a state owned and operated educational and research institution located in College Park, Prince Georges County, Maryland, which is about nine miles northeast of downtown Washington, D.C. The Facility includes approximately 1,300 acres with academic and research buildings, residential, service and support buildings and open space. Private residences and some light industrial/commercial business are located around the Facility. The Facility and surrounding area are served by public water. The ground water beneath the Facility is not used.

III. Summary of Corrective Action at Facility Areas

In 1991, EPA issued a RCRA Corrective Action Permit (1991 Permit) to the Permittee requiring the Permittee to conduct environmental investigations at eight Solid Waste Management Units (SWMUs) and two Areas of Concern (AOC), which EPA had previously identified at the Facility. The SWMUs are numbered 9 -12, 18, 43, 45 and 46, and the AOC are C and H. SWMUs and AOC are both areas where hazardous wastes have been placed or were routinely released. Pursuant to the 1991 Permit, the Permittee conducted soil and ground water investigations to determine if contamination had been released from the SWMUs and AOC at the Facility and, if so, to what extent. The SWMUs and AOC are discussed in more detail below and are shown in Figures 1 and 2. The 1991 Permit also required an integrity test for a waste oil

underground storage tank (UST), SWMU 24. The Permittee completed the integrity test for the UST and the tank passed. The 1991 Permit was effective for ten (10) years and has been administratively extended so that all of its conditions remain in effect.

A. Former Landfill Areas:

In the past, the Permittee operated four on-site, unlined landfills. The landfills are known as the Paint Branch Landfill Areas (Landfill Area) 1, 2 and 3, and the Metzerott Road Landfill (collectively referred to as the Former Landfill Areas). Landfill Areas 1, 2, and 3 are located along the Paint Branch Creek, on the east side of the Facility. The Metzerott Road Landfill is located on the west side of the facility. The Permittee disposed of solid wastes in the Former Landfill Areas from the 1940's to the mid to late 1960's.

1. Paint Branch Landfill Area 1 (SWMU 9)

Landfill Area 1 received solid waste in the form of garbage, refuse and incinerator fly ash from a coal-fired steam plant which was located on this landfill. As part of the RCRA Facility Investigation (RFI) required by the 1991 Permit, the Permittee dug test pits in Landfill Area 1 and sampled soils for volatile organic compounds (VOCs) and metals. The Analytic results showed no exceedences of the human health risk screening levels. In March 2001 and October 2002, the Permittee conducted methane gas monitoring in subgrade monitoring points located in Landfill Area 1. The results of the monitoring showed no threat to human health from methane gas inhalation or explosion at the monitoring sites. Currently, this landfill is paved and contains a parking lot with many utility buildings on it. Under the current land use, EPA determined that no further corrective action is necessary at this SWMU.

2. Paint Branch Landfill Area 2 (SWMU 10)

Landfill Area 2 received building demolition material and other solid wastes. After the Permittee discontinued sending waste to Landfill Area 2 in the late 1950s, the Permittee used this landfill to store electrical equipment from 1960 to 1983. In 1983, the Permittee discovered that oil containing PCBs had leaked from the electrical equipment onto the ground in Landfill Area 2. The Permittee removed the equipment and contaminated soil under direction of Maryland Department of the Environment. As part of the RFI, the Permittee dug test pits and sampled soils for VOCs and metals in Landfill Area 2. Sample results showed no exceedences of the human health risk screening levels. Currently, this landfill is partially paved and contains a parking lot and several buildings.

3. Paint Branch Landfill Area 3 (SWMU 11)

Landfill Area 3 received garbage, refuse, incinerator fly ash from the coal-fired steam plant, and construction/demolition rubble. In addition, a portion of this landfill is currently used by the Maryland Fire and Rescue Institute (MFRI) as a training academy (MFRI Area). The MFRI Area contains a building and two areas where fire props were ignited using petroleum fuels for training purposes. Currently, a flammable gas is used for fire training.

As part of the RFI, the Permittee dug test pits and sampled soils for VOCs and metals in

Landfill Area 3. Except for those samples taken from the MFRI Area, sample results showed no exceedences of human health risk screening levels. In 2000, the Permittee took test borings in the MFRI Area and discovered petroleum hydrocarbon contamination in soil and groundwater.

The Permittee determined that the petroleum hydrocarbon contamination was caused by a leak from an underground pipe connected to an above ground petroleum storage tank. The Permittee removed the tank and associated pipe in 1989, and in 2000, removed as much contaminated soil as possible. In 2000, the Permittee conducted ground water sampling in Landfill Area 3. The sample results showed benzene, toluene, ethylbenzene, xylenes, naphthalene and MTBE in ground water at levels above EPA's risk-based levels. As part of the permit, the Permittee will continue to monitor the ground water and consider ground water cleanup options. Currently, this landfill is partially paved and contains buildings occupied by MFRI.

In March 2001 and October 2002, the Permittee conducted methane gas monitoring in subgrade monitoring points located in Landfill Area 3. The results of the monitoring showed no threat to human health from methane gas inhalation or explosion at the monitoring sites.

4. Metzerott Road Landfill (SWMU 12)

The Metzerott Road Landfill received soil, rocks, tree debris, and construction/demolition rubble from the early 1950s to 1986. At the southern base of this landfill, there are two retention ponds (SWMUs 45 and 46) that collect storm water runoff from the landfill. At the Metzerott Road Landfill, the Permittee dug three pits and took soil and groundwater samples. The soil samples revealed no wastes or contaminants to a depth of 18 feet. The analytic results from the ground water samples showed that low levels of metals, methane gas and trace dioxin in the ground water were below human health risk screening levels. Currently, the landfill is capped with a soil/clay cover and is used as a storage yard for maintenance equipment and supplies. Under the current land use, no further action is considered necessary.

B. Pesticides Wash Pad (SWMU 18)

This SWMU was located at the Golf Course maintenance area. Starting in 1962, the Permittee mixed pesticides and rinsed equipment on a pad located in this area. The rinse water drained from the pad into an adjoining wooded area . Soil sampling from the wooded area revealed elevated levels of chlordane. The Permittee removed the pad and excavated and disposed of the contaminated soil. EPA has determined that no further action is necessary.

C. Explosive Waste Disposal Area (SWMU 43)

This SWMU is a three-acre area that the Permittee used between 1982 and 1985 for detonating and burning hazardous wastes in open pits. The wastes which Permittee detonated and/or burned in this area included shock sensitive or potentially explosive peroxidisable compounds from laboratory facilities. As part of the RFI, Permittee conducted soil sampling in this area. The sample results showed low levels of some VOCs. EPA determined that the contaminants are below levels that would present a risk to human health or the environment and the risk of human exposure is low. EPA has, therefore, determined that no further action is

necessary. A research greenhouse is now located on this area.

D. Retention Ponds 1 and 2 (SWMU 45 and 46)

These SWMUs collect storm water runoff from the Metzerott Road Landfill. The Permittee sampled pond sediment in these SWMUs to determine if any landfill contaminants had settled in the ponds. Low level metals and VOCs were found at levels below human health risk levels. Therefore, EPA has determined that no further action is necessary for these SWMUs.

E. Diesel Fuel Tank (AOC C)

This AOC was located north of the Golf Course maintenance shop where a 550 gallon diesel fuel tank was located. The tank was on a wooden pallet at the edge of a gravel surface. Soil stains were noted around the tank, and the Permittee collected soil samples from the area. Sample results showed the soil to be contaminated with diesel fuel. In 1997, the Permittee removed the contaminated soil, replaced the tank and constructed a spill containment structure under the new tank. EPA has determined that no further action is required.

F. Retention Pond 3 (AOC H)

This AOC is located in the north-central part of the Facility and collects run-off from the Grounds Maintenance Services area. Pesticides handling operations were located in the Grounds Maintenance Services area, and therefore the Permittee sampled the pond sediments for pesticides. No pesticides were found, however low levels of metals, VOCs and semi-volatile compounds were detected. EPA determined that the concentrations are below levels that would present a risk to human health or the environment, and, therefore, no further action is required.

IV. Remedy Proposal

After reviewing the Permittee's remedial work at the Facility, EPA believes that no further corrective action is necessary at the SWMUs and AOC identified in the 1991 Permit with the exception of the MFRI Area. EPA believes that the Permittee should conduct further investigation and remedial evaluation at the MFRI Area, including characterizing the petroleum contaminated ground water plume beneath the MFRI Area; evaluating appropriate remedies or corrective measures for the ground water plume; and estimate length of time to achieve clean up of ground water plume. EPA proposes that the new Corrective Action permit reflect these decisions, and take into consideration comments received during the public comment period. The new permit will remove the Corrective Action requirements completed by Permittee over the past 10 years, and will incorporate the final remedy for the Facility.

EPA is proposing that the final remedy for the Facility be (1) Corrective Action Complete with Controls for SWMUs and AOC discussed in Section III, above, with the exception of the MFRI Area, and (2) for the MFRI area, further investigation and remedial evaluation.

EPA is proposing the following final remedy Controls:

(1) For groundwater: recording, with the Prince Georges County Clerk's Office, a

prohibition against using the ground water for drinking water purposes and using the property in such a way that would interfere with or adversely affect the Former Landfills Areas and the Explosive Waste Disposal area;

(2) Former Landfill Areas: notification to EPA of proposed land use changes or proposed construction in the Former Landfill Areas, and

(3) Annual inspection and report to EPA of the Former Landfill Areas to verify land uses.

V. Public Participation

EPA is requesting comments from the public on the proposed remedy and EPA's proposal to reissue the University of Maryland's corrective action permit. The public comment period will last forty-five (45) calendar days from the date that the public notice for this matter is printed in the local newspaper (November **, 2004 to January **, 2005). Written comments should be sent to the EPA contact and address shown below. EPA will send a copy of the response to comments and final decision to all who comment.

A public meeting will be held upon request. Requests for a public meeting should be made to Ms. Barbara Smith of the EPA, Region III office at the address below, or by calling (215) 814-5786.

The Administrative Record contains all information considered by EPA when making this proposal. The Administrative Record is available during business hours at:

U.S. EPA - Region III
1650 Arch Street (3WC23)
Philadelphia, PA 19103-2029
Phone: (215) 814-5786
Fax: (215) 814-3113
Email: smith.barbara@epa.gov

This document and the draft permit are available at:

Hyattsville Public Library
6530 Adelphi Road
Hyattsville, MD 20782
Phone: (301) 985-4690
Hours: M-Th: 10 am - 9 pm, Fri: 10 am - 6 pm
Sat: 10 am - 5 pm, Sun: 1 - 5 pm

Following the forty-five (45) calendar day public comment period, EPA will prepare a final decision which will address written comments and substantive verbal comments from the public meeting, if one is held. The final decision will become part of the Administrative Record. If EPA significantly revises this proposal as a result of public comment, EPA will seek comment on the revised proposal.