

**EPA FACT SHEET
FOR A CORRECTIVE ACTION PERMIT
To
University of Maryland, College Park Campus
College Park, Maryland
EPA I.D. NO. MDD 980 829 873**

This fact sheet has been developed for the U.S. Environmental Protection Agency's (EPA) portion of the Resource Conservation and Recovery Act (RCRA) permit which EPA and the Maryland Department of the Environment (MDE), propose to reissue to the University of Maryland, College Park Campus (UMCP) located in College Park, Maryland. The full RCRA permit consists of EPA's portion, which addresses the provisions of the Hazardous and Solid Waste Amendments of 1984 (HSWA), and the MDE portion, which addresses that portion of the hazardous waste management program for which MDE is authorized. This fact sheet was prepared in accordance with the requirements of 40 CFR § 124.8.

A. PURPOSE OF THE PERMITTING PROCESS

EPA is required to prepare a draft permit which sets forth in one concise document all the applicable requirements which the Agency intends to require University of Maryland, College Park to comply with during the ten (10) year duration of EPA's permit. The permitting process allows EPA, interested citizens, and other governmental agencies the opportunity to evaluate the ability of UMCP to comply with the applicable hazardous waste management requirements promulgated under RCRA, as amended by HSWA. The public is given forty-five (45) days to review and comment on the draft permit conditions prior to EPA taking any final action on EPA's draft permit.

B. PROCEDURES FOR REACHING A FINAL DECISION

Section 7004(b) of RCRA and 40 CFR § 124.10 require that the public be given 45-days to comment on each draft permit prepared under RCRA. The comment period will begin **November 15, 2006 to December 29, 2006**. Any person interested in commenting on this draft permit must do so within the 45-day comment period.

All persons wishing to comment on any of the permit conditions should submit the comments (including any supporting material, references and factual grounds), in writing to:

U.S. EPA, Region III
1650 Arch Street (3WC23)
Philadelphia, Pennsylvania 19103
Att'n: Barbara Smith

In the event EPA receives written notice of opposition to the draft permit conditions and a request for a public hearing within the 45-day comment period, a hearing will be scheduled at a location convenient to the population center nearest to UMCP. Public notice of the hearing will be given at least 30 days before the hearing. Any request for a public hearing, accompanied by written opposition to the draft permit should be addressed to Barbara Smith at the address referenced above. For further information or to view the administrative record for this draft permit, contact Barbara Smith, at (215) 814-5786 or send e-mail to smith.barbara@epa.gov.

Handicapped persons with a need for special services should contact EPA far enough in advance of the hearing to enable the services to be secured. When making a determination regarding the issuance of this permit to UMCP, EPA will consider all written comments received during the comment period, oral or written statements received during the public hearing (if held), the requirements of the hazardous waste regulations of 40 CFR Parts 124, 260-264, 268 and 270, EPA's permitting policies, and HSWA.

When EPA makes a final permit decision to either issue, deny, or modify this permit, notice will be given to UMCP and each person who submitted written comments or requested notice of the final decision. The final permit decision shall become effective thirty (30) days after the service of notice of the decision unless a later date is specified or review is requested under 40 CFR § 124.19. If no comments request a change in this draft permit, the final permit shall become effective immediately once issued.

This draft permit contains conditions requiring UMCP to implement protective measures to prevent exposure of hazardous constituents to human health and the environment.

C. FACILITY DESCRIPTION

The University of Maryland at College Park (UMCP) is a state owned and operated educational and research institution. The facility is spread over about 1,300 acres and consists of academic and research buildings, residential, services, and support buildings and open space.

Surrounding the campus are private residences, located off of the north, south and west boundaries of the University. The area east of the facility has been developed for light industrial/commercial business and residential uses. A portion of the eastern section of the campus is located in the 100-year floodplain of Paint Branch Creek. Based on previous studies, groundwater depth ranges from 2 to 15.3 feet and generally flows to the south. The campus is supplied by public water and does not use ground water from beneath the facility.

The western section of UMCP campus consists of administrative buildings, a golf course, and includes a closed landfill called the Metzert Road Landfill. The central section is developed as the core of the University complex, and includes the major academic and residential buildings and laboratories. Three closed landfills, called Paint Branch Landfill Areas 1-3, are located in the southeastern section of the Campus.

Previous Environmental Investigations:

UMCP has Solid Waste Management Units (SWMU) and Areas of Concern (AOC) located on site. SWMUs are defined under the Resource Conservation and Recovery Act (RCRA) as areas where solid wastes have been placed, or areas where solid wastes have been routinely and systematically released. AOCs are areas where hazardous waste and/or constituents have or may have been released. Most hazardous waste at the facility was generated from research laboratories. Because of the SWMUs and AOCs, UMCP was issued a RCRA Corrective Action permit that took effect November 4, 1991. As part of the permit requirements, UMCP performed soil and groundwater investigations at eight SWMUs and two AOCs that were identified in a previous study as requiring further study to determine whether hazardous constituents were released to the environment, and extent and impact to the environment and human health any releases may have. Based on the results of the investigations, several corrective actions were completed at the SWMUs and AOCs, and therefore, no further action is required at these areas. However, at the Maryland Fire and Rescue Institute (MFRI) facility, located on SWMU 11 (see below for description), UMCP will submit a Corrective Measures Study to EPA to address groundwater contamination. Ground water use restrictions for the former landfills at UMCP will be instituted to protect human health. EPA will be consulted prior to any proposed land use changes for the former Landfills. The corrective measures taken over the last ten years are described below:

1. Former Landfill Areas: The former landfills at UMPC are described below, along with the results of the environmental investigations and corrective measures.

a. Paint Branch Landfill Area 1 (SWMU 9) is located in the eastern section of the campus, near Campus Drive East. The eastern margin of the former landfill borders Paint Branch Creek. The landfill began receiving solid wastes in the 1940's and ending in the late 1960's. The surface area of the landfill is about 550,400 ft² and the estimated gross volume is 94,548 yd³. The majority of this area is now paved and serves as parking lots and building sites for eleven campus buildings and one fuel oil storage tank.

b. Paint Branch Landfill Area 2 (SWMU 10) is located southeast of Paint Branch Landfill Area 1, in the eastern section of the Campus. Beginning in the early 1940's and ending in the late 1950's, building demolition material and perhaps other solid wastes were placed in the landfill. The unit's surface area was approximately 120,000 ft² and had a gross fill volume estimated at 51,541 yd³. Currently, the landfill area consists of both developed and undeveloped areas bisected by Paint Branch Parkway.

c. Paint Branch Landfill Area 3 (SWMU 11) is located in the eastern section of the Campus and extends to the southeast of Paint Branch Landfill Area 2. The landfill was used beginning in the early 1940's and ending in the mid to late 1960's, and received solid wastes generated at the University including garbage, refuse, incinerator or fly ash generated by the former coal-fired steam plant, and brick and concrete rubble from construction/demolition activities. The surface area of this unit is approximately 723,200 ft² and has a gross fill volume of 127,067 yd³. The area is now used as a training academy by the Maryland Fire and Rescue Institute (MFRI).

Petroleum hydrocarbon contamination associated with MFRI was discovered in 2000, and is discussed under C.7, MFRI.

d. Metzerott Road Landfill (SWMU 12) is located in the western section of the College Park Campus, south of Metzerott Road and east of Adelphi Road adjacent to the Astronomy Observatory. The landfill received wastes in the early 1950's and closed in 1986. The surface area of the landfill has been calculated to be approximately 49,088 ft² with an estimated fill volume of 67,354 yd³ and a total capacity of 103,164 yd³. This unlined landfill is presently used as a storage yard for maintenance equipment and supplies.

Results of Corrective Action Landfill Investigations: As part of the 1991 Corrective Action permit, groundwater investigations were completed at all of the landfill areas described above. The constituents found in ground water in and around the landfills were low levels of metals, very low levels of dioxin, and dissolved methane gas. EPA concluded that these low levels do not pose an unacceptable risk to human health and the environment, under the current land use. EPA required UMCP to monitor methane gas in subgrade structures located in Paint Branch Landfills 1 and 3. Results of monitoring show normal conditions, with no danger of explosion, therefore monitoring was discontinued. Ground water use for the former landfills will be restricted in deeds, leases and mortgages. EPA will be consulted prior to any proposed land use changes for the former Landfills.

2. Pesticides Wash Pad: This unit, also known as SWMU 18, is located in the western section of the campus, at the Golf Course maintenance area. The unit was used as a mixing and wash up area for pesticide mixing and handling equipment, and was about 5 feet wide by 8 feet long. The slope of the ground surface allowed run-off to drain to a wooded area. Some soil samples taken in one area had elevated levels of chlordane (a pesticide). UMCP excavated, removed and properly disposed of the contaminated soil in April 1998, in accordance with an EPA approved plan. No further corrective action is required.

3. Explosive Waste Disposal Area (SWMU 43) is located in the north-central section of the Campus. The unlined three acre area was used between 1982 and 1985 for detonating/burning hazardous wastes in open pits. Wastes included shock sensitive and/or potentially explosive peroxidisable compounds. Soil sampling showed low levels of some volatile organic compounds, therefore no further corrective action is required. Currently the area is the site of a new research greenhouse.

4. Retention Ponds 1 and 2 (SWMU 45 and 46) are located at the southern base of the Metzerott Road Landfill, and were constructed to receive run-off from the landfill. Sediment from the ponds was sampled to determine whether any contaminants from the landfill were present. No further corrective action is required because only low levels of metals and volatile organic compounds were found.

5. Diesel Fuel Tank (AOC C): The tank held a maximum of 550 gallons of diesel fuel, and was located north of the Golf Course maintenance shop. The tank was on a wooden pallet at the edge of a gravel surface. The RCRA permit required UMCP to investigate soils with evidence of

fuel spills or leaks. Some soils did contain petroleum hydrocarbons. In 1997, UMCP removed all contaminated soil, replaced the tank and constructed a spill containment structure under and around the new tank. No further corrective action is required.

6. Retention Pond 3 (AOC H) is located in the north-central area of the Campus and collects sediment/run-off from the Grounds Maintenance Services (GMS) area. Pesticides handling operations were located in the GMS, so pond sediments were sampled. No pesticides were found, however some low levels of metals, volatile and semi-volatile compounds were found. EPA determined that these levels pose no unacceptable risk to human health and the environment, therefore no further action is required.

7. Maryland Fire and Rescue Institute (MFRI): MFRI is located on the Paint Branch Landfill Area 3. In 2000, petroleum hydrocarbons were detected in test borings for a building addition. Upon investigation by UMCP, the most likely source of the release was from a leak(s) in a small underground pipeline that was used to convey flammable liquids (hydrocarbons) from a former 20,000 gallon above ground storage tank (AST) to fire props. In 1989, the AST and associated piping were removed. Contaminated soil was excavated from the building addition area, and ground water wells were installed to determine extent of ground water contamination. Benzene, toluene, ethylbenzene, xylenes, naphthalene and methyl-tertiary-butyl-ether were found in ground water, and data indicates that the plume is on-site. Ground water beneath UMCP is not used for drinking water purposes. UMCP implemented ground water remediation measures such as free product removal, and the concentrations of dissolved hydrocarbons are decreasing over time. As part of the permit, UMCP will submit a Corrective Measures Study.

D. PROPOSED SWMU MANAGEMENT IN NEW PERMIT

EPA is requiring that the University of Maryland implement protective measures to prevent any exposure of hazardous constituents to humans and/or the environment. These protective measures include: (1) the implementation of institutional controls to prevent the use of groundwater within the landfills areas and restrict certain activities that could result in human exposure to the waste and contaminants at the landfills, (2) submission of a Corrective Measures Plan for MFRI and (3) notification of EPA of proposed land use changes for the former Landfills.

E. PERMIT ORGANIZATION: The draft permit is divided as shown below.

<u>Part</u>	<u>Subject</u>
I	Standard Conditions
II	Specific Facility Conditions
Attachment A	Facility Location Map

PART I - GENERAL CONDITIONS: are conditions that apply to all hazardous waste facilities.

PART II - SPECIFIC FACILITY CONDITIONS: Part II sets forth the specific conditions that UMCP must follow. All Part II provisions are authorized by Sections 3004(u), 3004(v), 3005(c)(3) and 3005(h) of RCRA.

<u>Permit Condition</u>	<u>Subject</u>
II.A.	Corrective Action for Continuing Releases; Protection of Human Health and the Environment
II.B.	Institutional Controls
II.C.	Notice of Use Restriction
II.D.	Property Transfer
II.E.	Inspection of Landfill Areas
II.F.	Maryland Fire and Rescue Institute Corrective Measures Study
II.G.	Emergency Response; Release Reporting
II.H.	Solid Waste Management Unit (SWMU) Assessment
II.I.	Access for Corrective Action Oversight
II.J.	Guidance Documents
II.K.	Signature