DEPARTMENT OF THE ARMY
UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK 10996

October 26, 1999

REPLY TO
ATTENTION OF

Directorate of Housing and Public Works

SUBJECT: Decision Document for the Ski Lot Landfill

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NYSDEC
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BUREAU OF RADIATION &
HAZARDOUS SITE MANAGEMENT
DIVISION OF SOLID &
HAZARDOUS MATERIALS

Mr. Paul Patel
Division of Solid and Hazardous Materials
Bureau of Hazardous Waste Facilities
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-9240

IN DEC DOCS ★

Dear Mr. Patel:

Please find enclosed the decision document for the Ski Lot Landfill at the United States Military Academy at West Point. The decision document describes the selected action to re-grade and improve the existing landfill cap. Contact Mr. Jeff Sanborn of our Environmental Management Branch if you have any questions or concerns regarding this project. We look forward to your continuing contribution to the United States Military Academy's restoration program.

Sincerely,

Eugene E. Rood, P.E.
Chief, Environmental Management Division

Enclosure

DECISION DOCUMENT FOR THE SKI LOT LANDFILL CLOSURE

UNITED STATES MILITARY ACADEMY
WEST POINT, NY

1. PURPOSE

This decision document describes the selected action to improve drainage, replace the existing landfill cap, and installation of a landfill gas management system at the Ski Lot Landfill located at the United States Military Academy (USMA), West Point, NY. This action was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendment and Reauthorization Act (SARA); the National Contingency Plan (NCP); the Resource Conservation and Recovery Act (RCRA) and AR 200-1, as applicable.

The Ski Lot Landfill received municipal and construction waste from USMA and surrounding municipalities from approximately 1965 to 1974. Pit and fill methods of disposal were used at the landfill.

Leachate seeps containing elevated levels of metals have been identified in two locations adjacent to the Ski Lot Landfill. A soil vapor survey identified methane gas in 25 of 26 samples collected. The selected remedy entails improving the perimeter drainage course, and capping the landfill with a new surface pavement system. This will reduce stormwater run-on and infiltration minimizing its contribution to leachate generation. A limited passive landfill gas-venting system will also be installed. USMA selected this remedial action alternative with support and approval from the New York State Department of Environmental Conservation (NYSDEC) RCRA Corrective Action Section.

2. SITE RISK

Leachate seeps have been identified adjacent to the landfill in two areas. One seep is located in a heavily wooded area with limited access. The other seep is located next to a golf green where its location affords an increased risk of human contact. The leachate is a dark orange color, which stains discharge areas. Levels of iron and manganese in both seeps and thallium in one exceeded NYSDEC Class A surface water standards. The level of lead in one seep exceeded the NYSDEC Class A standard for protection of wildlife. Methane gas was reported in 25 of 26 soil vapor samples collected. Seven of the results exceeded the lower explosive limit (5%) for methane and five of the results exceeded the upper explosive limit (15%). Details of the site and the proposed remedy are available in the Design Analysis Report for Ski Lot Landfill Closure as prepared by EA Engineering Science and Technology in June 1999. Additional references include the Phase II Investigation Report and Leachate Management Analysis of Six Landfills as prepared by EA Engineering Science and Technology in August 1996 and Final Subsurface Investigation Report for Subsurface Investigation USMA West Point NY as prepared by LAW Engineering and Environmental Services in July 1994. These documents are available for review in the West Point Post Library.

3. REMEDIAL ALTERNATIVES

The proposed design alternatives for the Ski Lot Landfill closure are:

1. No Action. This action will not reduce leachate generation or control methane. The terrain will remain uneven and non-draining, promoting greater leachate generation. This alternative has no cost associated with it.

2. Management of Leachate/Impervious Cap. This alternative will reduce the amount of leachate generated by diverting runoff and reducing infiltration. The landfill surface will be regraded to promote surface water drainage to perimeter drainage swales. The leachate seep near the golf green will be collected by construction of a leachate seep drain. Passive gas vents will be installed to release landfill gas. The estimated cost is $535,000.

3. Minimization and Management of Leachate/Impervious Cap. This alternative includes the addition of an impervious plastic lined landfill cap to alternative 2. The cap will minimize the generation of leachate by preventing precipitation infiltration to the landfill. The estimated cost is $910,000.

The design alternative selected for remediation of the Ski Lot Landfill is option #2, Management of Leachate/Impervious Cap. Option 2 provides a cost-effective closure that protects human health and the environment, and meets the requirements of CERCLA, SARA, NCP, RCRA, and AR 200-1.

4. PUBLIC/COMMUNITY INVOLVEMENT

The landfill is utilized as a parking area for the US Mint and the Victor Constant Ski Slope. Project plans will be announced in the *Pointer View*, West Point's newspaper. Project plans shall be coordinated through the US Mint, the Utilities and Facilities Division, Engineering Plans and Services Branch, and the Directorate of Community and Family Activities. Since the project does not alter the land use and will not impact the environment, the project is subject to Categorical Exclusion A-7 (construction that does not alter land use) as listed in AR 200-1. A Record of Environmental Consideration is under preparation.

5. DECLARATION

The selected remedy is protective of human health and the environment, attains Federal and State requirements that are applicable or relevant and appropriate to this final remedial action, and is cost effective. This remedy satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principle element and utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable. Because this remedy will not result in hazardous substances remaining on site above levels that allow for unlimited use and unrestricted exposure, the five-year review will not apply to this action. Long term monitoring and maintenance shall be implemented to ensure that protection of human health and the environment is maintained.

6. APPROVAL AND SIGNATURE

The selected alternative for the Ski Lot Landfill is Management of Leachate/Impervious Cap. The cost of this action is $535,000. The appropriate authority for this action is the United States Military Academy Installation Commander.

ARNOLD SMITH
COL, FA
Garrison Commander