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BEFORE THE

OHIO ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF :

American Electric Power  
1 Riverside Plaza  
Columbus, Ohio 43215-2373

Director's Final Findings  
and Orders

Pursuant to Ohio Administrative Code (OAC) Rule 3745-30-15, the Director of Environmental Protection (Director) hereby makes the following Findings and issues the following Orders:

**FINDINGS**

1. American Electric Power (AEP) is the owner and operator of the Gavin Residual Waste Landfill (GRWL) which is located 1.25 miles northeast of the General James M. Gavin Plant at River Mile 258 on the Ohio River in Cheshire Township, Gallia County. The applicant received a Permit-to-Install for the landfill on January 27, 1994.
2. On September 25, 1997, AEP requested a variance from the provisions of OAC rule 3745-30-14(V)(2) for Phase A of the GRWL. OAC Rule 3745-30-14(V)(2) requires the installation of intermediate cover to minimize infiltration. A 12-inch thick layer of soil must be applied to **all** filled areas where additional waste will not be placed for at least 180 days.
3. On January 21, 1998, Ohio EPA granted the variance request from OAC Rule 3745-30-14(V)(2) pursuant to **OAC** Rule 3745-30-15. This variance did not result in a nuisance or a health hazard and is unlikely to result in a violation of any regulation adopted under Ohio Revised Code (ORC) Chapters 3704 and 6111.
4. On August 27, 2002, AEP requested a variance from the provisions of OAC Rule 3745-30-14(V)(2) for Phase B at the GRWL. OAC Rule 3745-30-14(V)(2) requires the installation of intermediate cover to minimize infiltration, A 12-inch thick layer of soil must be applied to all filled areas where additional waste will not be placed for at least 180 days.

I certify this to be a true and correct copy, of the  
of the Ohio Environmental Protection Agency, on this date  
Environmental Protection Agency  
By:  , 10-17-02

5. Phase B consists of about 50 acres. Approximately 25 acres will not have reached final grades at the completion of Phase B in late 2002 because it will be topped by future disposal phases. The remaining 25 acres of Phase B will have reached final grade and will have final cover installed consisting of two feet of recompacted clay and one foot of topsoil seeded for vegetative cover.
6. As part of this variance request, AEP submitted data from field permeability test reports using the two-stage borehole method that demonstrated the flue gas desulfurization (FGD) material can achieve a low permeability in the range of  $3 \times 10^{-6}$  to  $8 \times 10^{-6}$  cm/sec with an average of  $5 \times 10^{-6}$  cm/sec.
7. AEP's variance request demonstrated that the pozzolanic reaction which takes place in the FGD waste makes the FGD waste resistant to erosion. This was based on characteristics of the waste (57% filter cake, 40% fly ash, 3% lime) as well as field observations of the FGD material since the landfill began operating in January of 1995. The bonds formed in the cementitious reaction that occurs when the filter cake, fly ash, and lime are mixed, increase the material's resistance to erosion. Added measures to control erosion are a 2% slope on the intermediate cover area and perimeter ditches that will collect and channel rainfall runoff.
8. AEP's variance request states that fugitive dust emissions in excess of permit limitations will not be a problem. This is based on operating experience and the fact that FGD material has a moisture content around 50% when placed and after a few days the cementitious reaction hardens the surface. Active disposal operations in Phase B will be suspended and vehicular traffic will be greatly reduced. The site has dedicated water trucks available to address any unexpected excess fugitive dust emissions.
9. AEP has demonstrated in their variance request, per design volume calculations, that the existing Pond 2 would have the required volume to handle the runoff from the Phase B area without the intermediate soil cover.
10. OAC Rule 3745-30-15 allows the Director to grant a variance from the requirements of OAC Rule 3745-30-14(V)(2) if granting the variance will not result in a nuisance or a health hazard and is unlikely to result in a violation of any regulations adopted under ORC Chapters 3704 and 6111.
11. Because AEP has demonstrated that the FGD waste can achieve a sufficiently low permeability, is resistant to erosion, should not create fugitive dust problems, and because the facility has adequate water pollution control mechanisms in place and a composite liner and leachate collection system, the granting of the variance to AEP from the requirement to apply intermediate soil cover on top of Phase B at the GRWL will not create a nuisance or a health hazard and is unlikely to result in violation of any regulations adopted under ORC Chapters 3704 and 6111.

**ORDERS**

1. Pursuant to OAC Rule 3745-30-15, AEP is granted a variance from the requirement in OAC Rule 3745-30-14(V)(2) to apply intermediate soil cover to the top of Phase B at the GRWL. Final Cap shall be installed on the final outer slopes in a progressive manner as described in the approved closure plan.
2. Construction techniques that must be employed to minimize infiltration through the waste shall include a final one foot thick layer of FGD material that will be placed and compacted with four passes of a smooth drum vibratory roller or pneumatic tired roller.
3. The areas of Phase B that will not have intermediate soil cover shall be graded to a slope of 2% to minimize erosion and prevent ponding of water.
4. All outer slopes of Phase B shall be final capped as required by the approved "Final Closure and Post-closure Plan."
5. Nothing in these Findings and Orders shall be construed to authorize any waiver from the requirements of any applicable state solid waste laws or regulations. Furthermore, this authorization shall not be interpreted to release AEP or others from responsibility under ORC Chapters 3704, 3714, 3734, or 6111; under the Federal Clean Water Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, or the Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants from the facility to the environment.
6. If the lack of intermediate soil cover proves to be ineffective in minimizing infiltration or otherwise unsatisfactory to the Ohio EPA or likely to result in a nuisance or health hazard or violation of any regulations adopted under ORC Chapters 3704 or 6111, then the variance from OAC Rule 3745-30-14(V)(2) may be revoked upon written notification of the Director. Upon revocation, AEP shall immediately begin placement of intermediate cover in accordance with the requirements of OAC Rule 3745-30-14(V)(2).

IT IS SO ORDERED:

  
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Christopher Jones, Director