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STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Solid Waste Management Fifth Floor, L & C Tower 401 Church Street Nashville, Tennessee 37243 - 1535 615-532-0780

September 12, 2006

Mr. Larry C. Bowers Environmental Affairs Tennessee Valley Authority 1101 Market Street, LP 5D Chattanooga, TN 37402-2801 KC: L. F. Campbell, KFP 1A-KST R.L. Rehberg, KFP 1A-KST EDM, WT EA-K CERTIFIED MAIL

> # 7006 0100 0005 5070 6577 RETURN RECEIPT REQUESTED

RE:

Final Permit Decision - Lateral Expansion

TVA Kingston Fossil Plant Ash Landfill - IDL 73-0094

Dear Mr. Bowers:

The Tennessee Department of Environment and Conservation is hereby issuing the enclosed permit to you for construction and operation of the major modification (lateral expansion) of the referenced disposal facility.

I appreciate your interest in complying with state statutes and look forward to working with you again. If you have any questions, please contact Paul Evan Davis at (615) 532-0072 or by email: paul.evan.davis@state.tn.us.

Sincerely,

Mike Apple Director

Enclosure - 1

CC: Joseph R. Bynum, Executive Vice President, TVA Fossil Plant Group Paul Evan Davis, DSWM/Nashville Central Office Bassam Faleh, DSWM/Nashville Central Office O.J. Wingfield, TDEC Financial Assurance/Nashville Central Office Jatin Parikh, TDEC Fiscal Services, Nashville Central Office Larry Cook, DSWM/Knoxville Field Office Mark Penland, TDEC/Knoxville Environmental Field Office Steve Jacks, Kingston Public Library

DSWM Central Files/Nashville Central Office

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AFFAIRS

State of Tennessee
Department of Environment
and Conservation
Division of Solid Waste Management

Solid Waste Management Program 401 Church Street 5th Floor L & C Tower Nashville, Tennessee 37243-1535 615-532-0780

REGISTRATION AUTHORIZING SOLID WASTE DISPOSAL ACTIVITIES IN TENNESSEE

Registration Number:	IDL 73-0094
Date Issued:	September 12, 2006

Issued to: Tennessee Valley Authority Kingston Fossil Plant

Activities Authorized: Construction, operation, closure, and post-closure care of a Class II disposal facility, to be known as TVA Kingston Fossil Plant Ash Landfill, located in Roane Count at 714 Swan Pond Road, approximately 2 ½ miles southeast of Harriman, Tennessee (latitude 35°54'40" N/longitude 84°30'42" W) at the base of a peninsula formed by the Clinch and Emory River embayments of Watt's Bar Lake, about 2.7 miles above the confluence of the Clinch and Tennessee Rivers, for the disposal of industrial waste consisting of (1) fly ash and bottom ash generated onsite from the burning coal by the TVA Kingston Fossil Plant and (2) gypsum from the coal-fired power plant's air pollution control scrubbers.

By my signature, this registration is issued in compliance with the provisions of the Tennessee Solid Waste Disposal Act (Tennessee Code Annotated, Section 68-211-101, et seq.), and applicable regulations developed pursuant to this law and in effect; and in accordance with the conditions and other terms set forth in this registration document and attached Registration Conditions.

Mike Apple, Director

Division of Solid Waste Management

PERMIT TERMS AND CONDITIONS

- 1. <u>Re-certification by Permittee for Facilities Whose Initial Operation is Delayed</u> If the facility does not initiate construction and/or operation within one year of the date of this permit, the permittee must re-certify the application in accordance with Rule 1200-1-7-.02(2)(d).
- 2. <u>Duty to Comply</u> The permittee must comply with all conditions of this permit, unless otherwise authorized by the Department. Any permit noncompliance, except as otherwise authorized by the Department, constitutes a violation of the Act and is grounds for enforcement action, or for permit termination, revocation and re-issuance, or modification.
- 3. Need to Halt or Reduce Activity Not a Defense It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- 4. <u>Duty to Mitigate</u> In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent adverse impacts on human health or the environment.
- 5. Proper Operation and Maintenance The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.
- 6. <u>Permit Actions</u> This permit may be modified, revoked and re-issued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any existing permit condition.
- 7. <u>Property Rights</u> This permit does not convey any property rights of any sort, or any exclusive privilege.
- 8. <u>Duty to Provide Information</u> The permittee shall furnish to the Commissioner, within a reasonable time, any relevant information which the Commissioner may request to determine whether cause exists for modifying, revoking and re-issuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to the Commissioner, upon request, copies required to be kept by this permit. All records, including a copy of this permit and the approved Part I and Part II application, must be maintained at the facility or other locations as approved by the Commissioner.

- 9. <u>Inspection and Entry</u> The permittee shall allow the Commissioner, or an authorized representative, to:
 - Enter at any reasonable time the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - (ii) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (iii) Inspect at any reasonable time any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit (Note: If requested by the permittee at the time of sampling, the Commissioner shall split with the permittee any samples taken.);
 - (iv) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Act any substances or parameters at any location; and
 - (v) Make photographs for the purpose of documenting items of compliance or noncompliance at waste management units, or where appropriate to protect legitimate proprietary interests, require the permittee to make such photos for the Commissioner.

10. Monitoring and Records

- (i) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (ii) The permittee shall retain records of all required monitoring information. The permittee shall maintain records for all groundwater monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for the postclosure care period as well. This period may be extended by request of the Commissioner at any time.
- (iii) Records of monitoring information shall include:
 - (I) The date, exact place, and time of sampling or measurements;
 - (II) The individual(s) who performed the sampling or measurements;
 - (III) The date(s) analyses were performed;
 - (IV) The individual(s) who performed the analyses;
 - (V) The analytical techniques or methods used (including equipment used); and
 - (VI) The results of such analyses.

11. Reporting Requirements

- (i) The permittee shall give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility.
- (ii) Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (iii) The permittee shall report orally within 24 hours from the time the permittee becomes aware of the circumstances of any release, discharge, fire, or explosion from the permitted solid waste facility which could threaten the environment or human health outside the facility. Such report shall be made to the Tennessee Emergency Management Agency, using the 24-hour toll-free number 1-800-262-3300.
- (iv) Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Commissioner, it shall promptly submit such facts or information.

12. Periodic Survey

- (i) Within 60 days of his receipt of the written request of the Commissioner to do so, the permittee shall cause to be conducted a survey of active and/or closed portions of his facility in order to determine if operations (e.g., cut and fill boundaries, grades) are being conducted in accordance with the approved design and operational plans. The permittee must report the results of such survey to the Commissioner within 90 days of his receipt of the Commissioner's request.
- (ii) The Commissioner may request such a survey:
 - (I) If he has reason to believe that operations are being conducted in a manner that significantly deviates from the approved plans; and/or
 - (II) As a periodic verification (but no more than annually) that operations are being conducted in accordance with the approved plans.
- (iii) Any survey performed pursuant to this part must be performed by a qualified land surveyor duly authorized under Tennessee law to conduct such activities.
- 13. Duration of Permits This permit shall be effective for the operating life of the facility.
- 14. <u>Effect of Permit</u> The issuance of this permit does not authorize the permittee to injure persons or property or to invade other private rights, or to violate any local law or regulations.
- 15. <u>Transfer, Modification, Revocation and Re-issuance, and Termination of Permits</u> This permit may be transferred, modified, revoked or reissued, or terminated as set forth in 1200-1-7-.02(5).

- Applicable Standards All applicable facility standards of Rule Chapter 1200-1-7, Solid Waste Processing and Disposal Amendments shall be considered conditions of this registration.
- 17. <u>Penalties</u> Any violation of the conditions or other terms of this registration may subject the registrant to the penalties set forth in Tennessee Code Annotated Section 68-211-114 and 68-211-117.
- 18. <u>Hazardous Waste Restriction</u> No hazardous waste, as regulated by the Tennessee Hazardous Waste Management Act (TCA Section 68-212-101, et seq.), and the Rules adopted pursuant to that Act, shall be accepted at this facility.
- 19. <u>Construction and Operation</u> The permittee shall construct and operate the facility in accordance with the approved engineering plans and operations manual which becomes a condition of this permit as Attachment I.
- 20. <u>Financial Assurance</u> Prior to beginning operation, the permittee must file a Financial Assurance Instrument in accordance with Rule 1200-1-7-.03.
- 21. <u>Special Waste</u> Except as specifically provided for in the Facility-Specific Conditions of this permit, the permittee may not accept for disposal any special waste unless approved to do so in writing by this Department.
- 22. <u>Automobile Batteries</u> This facility is specifically prohibited from accepting automobile batteries for disposal.

VARIANCES AND WAIVERS

The following variances or waivers from standards or requirements in Rule 1200-1-7, Solid Waste Processing and Disposal Amendments, are hereby granted in accordance with Rule 1200-1-7-.01(5):

- 1. Rule 1200-1-7-.04(4)(b), which requires "Class II" landfills to have a geologic buffer above the seasonal high water table or the top of the first confined aquifer formation, is waived to eliminate the geologic buffer requirement, because the landfill will be constructed on an area already disturbed by unpermitted disposal of coal ash waste, which has been placed below the existing water table over the site footprint. The Division of Solid Waste Management has concluded that additional environmental impacts from continued waste disposal over this area in the absence of the geologic buffer should be negligible.
- 2. No leachate migration control system will be required. [Rule 1200-1-7-.04(4)]
- 3. No gas migration control system will be required. [Rule 1200-1-7-.04(5)]
- 4. No random inspection program will be required. [Rule 1200-1-7-.04(2)(s)]
- 5. No daily or intermediate cover will be required for the ash fill area. [Rule 1200-1-7-.04(6)]
- 6. Rule 1200-1-7-.04(2)(k) prohibits disposal of bulk or non-containerized liquids other than domestic waste, leachate or gas condensate, in any landfill. This Rule is being waived to allow the Permittee to dispose of slurried coal ash and gypsum, which contains free liquids, in this facility. The Permittee has demonstrated the ability to dispose of the same waste streams at other sites, using similar management methods, in a manner that produces a stable fill and does not result in groundwater or surface water contamination from leachate generation.

FACILITY-SPECIFIC PERMIT CONDITIONS

The following conditions of this permit are established pursuant to Rule 1200-1-7-.02(4)(b):

- During the post-closure period, but no later than three years after final closure, TVA must submit a report to the Division of Solid Waste Management characterizing the nature of groundwater mounding beneath the ash disposal area.
- 2. The Permittee shall close the facility in accordance with the approved closure and postclosure plan, which becomes a condition of this permit.
- 3. The constructed, compacted fly ash base and bottom ash drainage layer for the expansion fill areas shall be constructed under the supervision of a professional engineer, and a certification report shall be submitted to the Division of Solid Waste Management and accepted, before additional waste placement shall begin in the expansion areas. All components of the internal drainage system shall be installed in a timely manner as the fill progresses.
- 4. The Permittee shall give a minimum 60-day notice to the Division of Solid Waste Management before implementing any of the options included with the construction and operation plans for gypsum disposal. The notice shall state which disposal option has been selected.