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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

841 Chestnut Building
Philadelphia, Pennsylvania 19107

SEP 30 1988

Mr. J. Leed, Director,
Waste Management
Exide/General Battery Corporation
P. O. Box 14205
Reading, PA 19612-4205

Dear Mr. Leed:

The Environmental Protection Agency (EPA) has made a final determination under the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6901 et seq., to issue a corrective action permit to General Battery Corporation (EPA I.D. No. PAD 99 075 3089). This permit is issued September 28, 1988 and is effective November 7, 1988.

On August 8, 1988, EPA published a public notice under regulation 40 C.F.R. § 124.10 of its tentative decision to issue a draft permit and provided 45 days for any interested person(s) to comment on the draft permit. A public hearing was held on September 14, 1988. EPA has made the determination, based on all the information received during the public comment period and all testimony received at the public hearing, to issue the permit with minor changes in schedules of compliance. EPA's response to comments is included as Attachment 1. This final permit decision is issued under regulation 40 C.F.R. § 124.15.

General Battery Corporation or any person who submitted comments on the draft permit, or participated in the public hearing may, under regulation 40 C.F.R. § 124.19, petition the Administrator to review the permit decision, provided the appeal is filed by November 7, 1988.

The petition must include a statement of the reasons supporting that review, including a demonstration that any issues being raised were raised during the public comment period (including the public hearing) to the extent required by the regulations governing public comment and hearing (40 C.F.R. §§ 124.10 and .12). When appropriate, the petitioner should include a showing that the contested decision is based on: (1) a clearly erroneous finding of fact or conclusion of law; or (2) an exercise of discretion or an important policy consideration that the Administrator should review in his discretion. A copy of the appeal procedures is included as Attachment 2.

The Administrator must issue an order that grants or denies the petition within a reasonable time following the filing of the petition. Public notice of any grant of administrative review under regulation 40 C.F.R. § 124.19 must be given as provided in regulation 40 C.F.R. § 124.10. The public notice must contain a briefing schedule for the appeal and a statement that any interested persons may file amicus briefs. If review is denied, notice need only be sent to the respective petitioners and the permittee.

If you should decide to appeal the permit decision, please direct your petition to:

U.S. Environmental Protection Agency
Office of the Administrator (A-100)
Waterside Mall
401 "M" Street, S.W.
Washington, D.C. 20460

Should have any questions concerning this matter, please contact Patrick Anderson at (215) 597-7937.

Sincerely,


Stephen R. Wassersug, Director
Hazardous Waste Management Division

Attachments

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PERMIT

CORRECTIVE ACTION & WASTE MINIMIZATION

UNDER THE HAZARDOUS AND SOLID WASTE

AMENDMENTS OF 1984

Permittee: General Battery Corporation

Facility Location: Spring Valley Road and Nolan Street, Reading, PA

EPA Identification Number: PAD 99 075 3089

Effective Date: ~~November 7, 1988~~ Expiration Date: November 7, 1998

This permit is issued by the United States Environmental Protection Agency (EPA) under authority of the Resource Conservation and Recovery Act, Subtitle C, 42 U.S.C. §§ 6921-6939B (1976, as amended by Supp. IV, 1980 (RCRA), and the Hazardous and Solid Waste Amendments of 1984 (HSWA)) and EPA regulations, to General Battery Corporation, Spring Valley Road and Nolan Street Reading, Pennsylvania, (hereafter called the Permittee), to meet the requirements of HSWA for corrective action for all releases from solid waste management units, demonstrate financial assurance for same and minimize the generation of hazardous waste. The facility is located at latitude 40° 22' 45" North and longitude 75° 54' 48" West.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (Parts I-IV and attachments) and the applicable regulations contained in 40 C.F.R. Parts 260 through 264, 268, 124 and 270 as specified in the permit. Applicable regulations are those which are in effect on the date of issuance of this permit. (See 40 C.F.R. § 270.32(c)).

This permit is based on the assumption that the information provided to EPA by the Permittee is accurate. Further, this permit is based in part on the provisions of Sections 206, 212, and 224 of the Hazardous and Solid Waste Amendments of 1984, which modify Sections 3004 and 3005 of RCRA. In particular, Section 206 requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage or disposal facility seeking a permit, regardless of the time at which waste was placed in such unit. Section 212 provides authority to review and modify the permit at any time. Any inaccuracies found in the submitted information may be grounds for the termination, modification or revocation and reissuance of this permit (see 40 C.F.R. § 270.41, § 270.42 and § 270.43) and potential enforcement action. The Permittee must inform EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit is effective as of November 7, 1988, and shall remain in effect until November 7, 1998, unless revoked and reissued, modified or terminated in accordance with 40 C.F.R. § 270.41, § 270.42 or § 270.43, or continued in accordance with 40 C.F.R. § 270.51(a).

PART I - STANDARD CONDITIONS

A. EFFECT OF PERMIT

This permit authorizes only the management of hazardous waste expressly described in this permit and does not authorize any other management of hazardous waste. EPA will consider compliance with the terms of this permit to be compliance with the requirements of RCRA Subtitle C.

The full RCRA permit is comprised of EPA's portion, which addresses the provisions of the Hazardous and Solid Waste Amendments of 1984, and the Pennsylvania Department of Environmental Resources' portion, which addresses the provisions of RCRA for which the Commonwealth of Pennsylvania is authorized. The Commonwealth of Pennsylvania is authorized to administer and enforce those portions of RCRA that were in effect November 7, 1984, prior to the enactment of the Hazardous and Solid Waste Amendments of 1984.

This portion of the permit, which addresses the Hazardous and Solid Waste Amendments of 1984, will be enforced by EPA. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, or invasion of other private rights, or any infringement of State or local laws or regulations (40 C.F.R. §§270.30(g) and 270.4(b) and (c)). Compliance with the terms of this permit does not constitute a defense to any action brought under Section 7003 of RCRA (42 U.S.C. §6973), Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, (42 USC §9606(a)) (commonly known as CERCLA), or any other law governing protection of public health or the environment.

Nothing contained herein shall in any way be deemed to waive the Permittee's obligation to comply with 40 C.F.R. Part 270, Subpart C, and applicable regulations set forth at 40 C.F.R. Part 124.

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 C.F.R. §§270.41, 270.42, and 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition (40 C.F.R. §270.30(f)). Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations and laws.

C. PERMIT CONDITIONS

Pursuant to Section 3005(c)(3) of RCRA, this permit contains those terms and conditions determined necessary to protect human health and the environment (40 C.F.R. §270.32(b)(2)).

D. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby (40 C.F.R. §124.16(a)(2)).

E. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those set forth in Title 40 of the Code of Federal Regulations (40 C.F.R. Parts 260 through 264 and 270), unless this permit specifically states otherwise. Where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the terms. The following definitions also apply to this permit.

1. Regional Administrator - Regional Administrator of the United States Environmental Protection Agency for the Mid-Atlantic Region (Region III), his designee or authorized representative.
2. Director - Director of the Pennsylvania Department of Environmental Resources, Bureau of Waste Management, his/her designee or authorized representative.
3. Release - any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.
4. Solid Waste Management Unit - any discernible unit at a facility seeking a RCRA permit from which hazardous waste or hazardous constituents might migrate, irrespective of whether the unit was intended for the management of solid and/or hazardous waste.
5. Facility - all contiguous property under the control of the owner or operator at which the units subject to permitting are located (except for permit condition I.I.10).

F. REPORTS, NOTIFICATIONS AND SUBMISSIONS TO THE REGIONAL ADMINISTRATOR

All reports, notifications or other submissions which are required by this permit to be sent or given to the Regional Administrator or EPA should be sent Certified Mail or given to:

Hazardous Waste Management Division
EPA Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107
Telephone Number: (215) 597-8131
Attention: Stephen R. Wassersug, Director

G. SIGNATORY REQUIREMENTS

All reports or other information submitted to the Regional Administrator or Director shall be signed and certified as required by 40 C.F.R. §§270.11(b) and 270.30(k).

H. DOCUMENTS TO BE MAINTAINED AT THE FACILITY SITE

The Permittee shall maintain at the facility all documents required by this permit and amendments, revisions and modifications to these documents. The Permittee shall maintain at the facility a written operating record that complies with all the requirements of 40 C.F.R. §264.73.

I. DUTIES AND REQUIREMENTS

1. Duty to Comply. The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such such noncompliance is authorized by an emergency permit. Any other permit noncompliance constitutes a violation of RCRA and is grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. (40 C.F.R. §270.30(a))
2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must submit a complete application for a new permit at least 180 days before this permit expires. (40 C.F.R. §§270.10(h) and 270.30(b))
3. Permit Expiration and Continuation. Pursuant to 40 CFR §270.50, this permit shall be effective for a fixed term not to exceed ten years. Pursuant to 40 CFR §270.51, this permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely and complete application (see 40 C.F.R. §270.10 and §§270.14 - 270.29) and through no fault of the Permittee, the Regional Administrator or Director has not issued a new permit under 40 C.F.R. §124.15.
4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the 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. (40 C.F.R. §270.30(c))
5. Duty to Mitigate. In the event of noncompliance with this 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 significant adverse impacts on human health or the environment. (40 C.F.R. §270.30(d))
6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems

of treatment, monitoring, 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 staff 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 when necessary to maintain compliance with the conditions of the permit. (40 C.F.R. §270.30(e))

7. Duty to Provide Information. The Permittee shall furnish, within the specified time, any relevant information which the Regional Administrator or Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Regional Administrator or Director, upon request, copies of records required to be kept by this permit. (40 C.F.R. §§270.30(h) and 264.74(a))

8. Inspection and Entry. Pursuant to 40 C.F.R. §270.30(i), the Permittee shall allow the Regional Administrator or Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter at reasonable times upon 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;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor, at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

9. Monitoring and Records. Pursuant to 40 C.F.R. §270.30(j), the Permittee shall comply with the following requirements.
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All sampling and analysis shall be of adequate quality, scientifically valid, of known precision and accuracy, and of acceptable completeness, representativeness and comparability. Laboratory analysis of samples must be performed using an appropriate method for testing the parameter(s) of interest taking into account the samples matrix. Use of the test methods found in the Agency publication, Test

Methods for Evaluating Solid Waste, Physical/ Chemical Methods, (SW-846), shall be used for: the EP toxicity test and the analytical methods used to determine the EP toxicity test analyses (40 C.F.R. §261.24); the Free Liquids Test (Method 9095) used to determine if free liquid is a component of a waste as a specific requirement for bulk and containerized wastes (40 C.F.R. §264.213 and §265.213(d)); and the chemical analysis of wastes for hazardous waste incineration permits (40 C.F.R. §270.62(b)(2)(C)).

- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three (3) years from the date of the sample, measurement, report, certification or application. These periods may be extended by request of the Regional Administrator or Director at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. The Permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.
- c. Records of monitoring information shall specify:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.

- 10. Reporting Planned Changes and Anticipated Noncompliance. The Permittee shall give notice to the Regional Administrator and Director, at least 30 days prior to any planned physical alterations or additions to the permitted facility. The Permittee shall give the Regional Administrator and Director at least 45 days advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements (40 C.F.R. §§270.30(1)(1) and (2)).

For purposes of this permit condition, I.I.10, only the definition of "facility" in 40 C.F.R. §260.10 shall apply.

11. Transfer of Permit. In accordance with 40 C.F.R. §270.30(1)(3), this permit is not transferable to any person, except after notice to the Regional Administrator and Director. The Regional Administrator or Director may require modification or revocation and reissuance of the permit to identify the new Permittee and incorporate such other requirements as may be necessary under RCRA (40 C.F.R. §270.40). At least 30 days prior to transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of 40 C.F.R. Parts 264 and 270, and at the same time shall send a copy of such notice to the Regional Administrator and Director.

12. Twenty-four Hour Reporting. Pursuant to 40 C.F.R. §270.30(1)(6), the Permittee shall report to the the Regional Administrator and Director any noncompliance which may endanger health or the environment. Information shall be provided orally as soon as possible, but no later than twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:
 - a. Information concerning release of any hazardous waste or hazardous constituent that may cause an endangerment to public drinking water supplies.

 - b. Any information of a release or discharge of hazardous waste, hazardous constituent or of a fire or explosion from the facility, which could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:
 - (1) Name, address, and telephone number of the owner or operator;
 - (2) Name, address, and telephone number of the facility;
 - (3) Date, time, and type of incident;
 - (4) Name and quantity of material(s) involved;
 - (5) The extent of injuries, if any;
 - (6) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
 - (7) Estimated quantity and disposition of recovered material that resulted from the incident.

 - c. A written submission shall also be provided to the Regional Administrator and Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance

including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee need not comply with the five (5) day written notice requirement if the Regional Administrator and Director waive that requirement and the Permittee submits a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances.

13. Immediate Reporting of Releases. In accordance with the requirements of 40 C.F.R. §264.56(d)(1) and (2), if the facility's emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:
 - a. If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and
 - b. He must immediately notify either the government official designated as the on-scene coordinator for that geographical area, (in the applicable regional contingency plan under 40 C.F.R. Part 1510) or the National Response Center (800/424-8802). The report must contain the information required under 40 C.F.R. §264.56(d)(2)(i) through (vi).
14. Other Noncompliance. The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in permit condition I.I.12 (40 C.F.R. §270.30(1)(10)).
15. Other Information. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator or Director, the Permittee shall notify the Regional Administrator or Director of such failure within 7 days. The Permittee shall submit the correct or additional information to the Regional Administrator or Director no later than 14 days of becoming aware of the deficiency (40 C.F.R. §270.30(1)(11)).
16. Compliance Schedule. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date. (40 C.F.R. §270.30(1)(5))
17. Biennial Report. Pursuant to 40 C.F.R. §270.30(1)(9), a report must be submitted to the Regional Administrator or Director,

as appropriate, covering facility activities by March 1 of odd numbered calendar years. The report shall contain the information required in 40 C.F.R. §264.75.

18. Manifest Discrepancy Report. Pursuant to 40 C.F.R. §270.30(1)(7), if a discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days of discovery, the permittee must submit a letter report, including a copy of the manifest, to the Regional Administrator or Director, as appropriate. (See 40 C.F.R. §264.72)
19. Unmanifested Waste Report. Pursuant to 40 C.F.R. §270.30(1)(8), if the Permittee receives unmanifested waste it must report such waste to the Regional Administrator or Director no later than fifteen (15) days after its receipt. (See 40 C.F.R. §264.76).

PART II

GENERAL FACILITY CONDITIONS

A. SUBMISSIONS TO AGENCY AND DISPUTE RESOLUTIONS

1. The Permittee shall submit to the Regional Administrator at least three copies of any submittal required by EPA's portion of this permit. All submittals shall be signed and certified pursuant to 40 C.F.R. §§270.30(k) and 270.11.
2. All plans, reports, schedules, and other submissions required by the terms of EPA's portion of this permit are, upon approval by the Regional Administrator, incorporated into this permit. Any noncompliance with such approved studies, schedules, plans, reports, or other submissions shall be deemed noncompliance with this permit. In the event of unforeseen circumstances beyond the control of the Permittee which could not be overcome by due diligence, the Permittee may request a change, subject to Regional Administrator approval, in the previously approved plans, reports, schedules or other submissions. This request may result in a major or minor modification of the permit.
3. In the event of EPA disapproval in whole or in part of any plan, schedule, report or other submission required by this permit, the Regional Administrator shall specify any deficiencies in writing. The Permittee shall modify the plan, schedule, report or other submission to correct the deficiencies within thirty (30) days from receipt of disapproval by the Regional Administrator. The modified plan, schedule, report or other submission shall be submitted to EPA in writing for review. Should the Permittee take exception to all or part of EPA's disapproval, the Permittee shall submit to the Regional Administrator a written statement of grounds for the exception within fifteen (15) days from receipt of EPA's disapproval. Representatives of EPA and the Permittee may confer in person or by telephone in an attempt to resolve any disagreement. In the event that resolution is not reached within forty-five (45) days from receipt of disapproval by the Regional Administrator, the Permittee shall revise the plan, schedule, report or other submission as required by EPA and resubmit the revised plan, schedule, report or other submission by the date required by EPA. The Permittee, upon submission of the revised plan, report, schedule or other submission shall state whether or not it agrees in whole or in part with the revised plan, schedule, report or other submission. In the event of any disagreement, the permit shall be modified in accordance with 40 C.F.R. §270.41.

B. PERMIT MODIFICATION

The Regional Administrator will modify the permit in accordance with 40 C.F.R. §270.41 and Section 3005(c) of RCRA in the event

that investigations required in this permit, or any other information available to the Regional Administrator, identify solid waste management units that require corrective measures. Financial assurance by the Permittee is required if corrective measures are necessary (40 C.F.R. §264.101(b)). This paragraph does not limit the Regional Administrator's authority to otherwise modify this permit in accordance with 40 C.F.R. Part 270, Subpart D.

C. CERTIFICATION

The Permittee shall maintain a certification at the facility containing the information required by 40 C.F.R. §264.73(b)(9).

D. RECORDKEEPING AND REPORTING

The Permittee shall maintain a written operating record at the facility in accordance with 40 C.F.R. §264.73(b)(9) [Waste Minimization].

E. CLOSURE AND NOTIFICATION REQUIREMENTS

1. Closure

- a. When the Permittee plans to replace or eliminate solid waste management units currently in use, the subject units shall be closed in a manner that:

- (1) Minimizes the need for further maintenance; and
- (2) Eliminates post-closure escape of hazardous waste or hazardous constituents.

- b. Upon completion of such closure, the Permittee shall maintain a record of the closure activity in the facility operating record.

2. Required Notices

- a. One year after the effective date of this permit and annually thereafter, the Permittee shall place a notice in the facility operating record for each year during which no releases of hazardous waste or constituents originate at any solid waste management unit at the facility. The notice shall state:

"During the period of _____ to _____, there were no releases of hazardous waste or constituents from any solid waste management units at this facility."

Part III

SUMP INTERGRITY ASSESSMENT

A. UNIT DESCRIPTION

The eleven (11) units listed in the table below are subject to the assessment requirements of this Part. The numbers in the column titled "SWMU NUMBER" refer to the corresponding SWMU number in the RCRA Facility Assessment (RFA), Attachment 1.

<u>SWMU NUMBER</u>	<u>UNIT NAME</u>
6	Smelter Shredder Sump
7	Smelter Breaker Sump
14	Truck Rinsewater Sump
24	Smelter Baghouse Area Collection Sump
27	North Smelter Area Collection Sump
28	Smelter Scrubber Washdown Sump
30	Smelter/Landfill Leachate Sump
31	Leachate Recycle Sump
34	Smelter Sludge Oxide Leachate Sump
51	Industrial Battery Sump
79	North Parking Lot Stormwater Runoff Sump

B. UNIT ASSESSMENT REQUIREMENTS

1. Within 180 days of permit issuance, the Permittee must determine whether each unit listed in Condition III.A above has been adequately designed and has sufficient structural strength and compatibility with the waste(s) managed to ensure that it has not failed. At a minimum, this determination must include the following:
 - (a) Design standards used in the construction of each unit;
 - (b) Existing corrosion protection employed for each unit;
 - (c) Results of a leak test, internal inspection, or other integrity examination.
2. The Permittee may use existing information to satisfy conditions 1(a) and (b) above. The examination of each sump must be current; i.e., within 90 days of permit issuance.
3. The Permittee shall submit the results of the sump assessment to EPA for approval within 30 days of completion of the assessment.

C. CORRECTIVE MEASURES

Based on the results of the Unit Assessment required by III.B above, the Permittee shall repair or replace those units found to be leaking, deteriorated or otherwise incapable of preventing the release of hazardous waste or constituents to the environment.

1. Units found to have leaked or be leaking shall not be utilized to manage hazardous waste until such units have been repaired or replaced.
2. All required repair/replacement shall be completed according to an approved schedule agreed upon by EPA and the Permittee.
3. All repairs/replacement shall be certified in accordance with 40 C.F.R. §270.11(b)
4. The Permittee shall determine the need for further clean up by testing any soils impacted by any units replaced under this section.
5. The certification(s) of repair/replacement as well as results from any soil testing shall be provided within 30 days of completion of the repair/replacement work.

PART IV

GROUNDWATER MONITORING REQUIREMENTS

A. FACILITY HYDROGEOLOGY INVESTIGATION

1. Within 180 days of the effective date of this permit, the Permittee shall develop and submit to EPA for approval a plan for conducting a hydrogeologic investigation of the facility. The plan should be designed to provide the following information:
 - a. A description of the geologic and hydrogeologic characteristics in the vicinity of the facility including:
 1. regional stratigraphy
 2. regional groundwater flow patterns
 3. identification and characterization of areas of recharge and discharge
 4. identification of regional groundwater users including private wells
 - b. A classification and description of the hydrogeologic properties of all the hydrogeologic units found at the facility (i.e., aquifers and intervening saturated and unsaturated units), including:
 - 1) hydraulic conductivity
 - 2) lithology
 - 3) an interpretation of hydraulic inter-connections between saturated zones
 - c. Using a topographic map as a base, submit a map of structural geology and at least two hydrologic cross-sections showing the extent (depth, thickness, lateral extent) of the uppermost aquifer, (including all water-bearing zones above the first confining layer that may serve as a pathway for contaminant migration including perched zones of saturation).
 - d. A description of water level or fluid pressure monitoring including a water-level contour or potentiometric map.
 - e. A description of artificial influences that may effect the hydrogeology of the site, (identifying any local water-supply or plant production wells as well as any french drains, ditches, etc.)
2. The plan developed for Permit Condition IV A.1 shall include a description of the field methods and other information sources proposed for the study. The proposed methods shall include:

- a. A program of soil borings, as required, to adequately describe the subsurface conditions.
 - b. The presence of a qualified geologist or engineer to direct field activities.
 - c. A sufficient number of piezometers to characterize groundwater depths and gradient.
 - d. The use of pump or slug tests, as appropriate, to determine hydraulic conductivities.
3. The plan submitted to comply with permit conditions IV.A.1 and IV.A.2 shall include a schedule for conducting the proposed investigation and provision for a final report to EPA.
 4. The Permittee shall implement the facility hydrogeologic investigation, and submit a final report to EPA, according to the approved schedule.
 5. The Permittee may use existing information to satisfy all or any of the Conditions IV.A.1 and IV.A.2 above. For existing information to be considered in lieu of the investigation outlined above, the Permittee must submit the information to EPA for approval within 45 days of permit issuance.

B. GROUNDWATER MONITORING

1. Within 90 days after the completion of the facility hydrogeologic investigation and submission of the final report to EPA, the Permittee shall submit to EPA for approval a proposal for the design and installation of a monitoring well network. This network must be capable of detecting releases of hazardous waste or hazardous constituents that may migrate from the Solid Waste Management Units listed below:

<u>SWMU NO.</u>	<u>NAME</u>
1	Convent (Muhlenberg Twp.) Landfill
2	Reading Landfill
3	Battery Case Disposal Area
4	Lead Oxide Surface Impoundment No. 1
5	Lead Oxide Surface Impoundment No. 2
45	Groundwater Recovery Trench

2. The groundwater monitoring proposal shall include the following elements:
 - a. A description and map of proposed well locations, including a survey of each well's reference point and the elevation of its top of casing;

- b. Size and depth of wells;
 - c. Description of well-intake design including screen slot size and length and, filter pack materials;
 - d. Type of well casing and screen materials;
 - e. Methods used to seal the well from the surface and prevent groundwater migration of contaminants through the well annulars;
 - f. Description of well development procedures.
3. Along with the well information required in Permit Condition IV.B.2, the Permittee shall concurrently submit to EPA for approval a sampling and analysis plan capable of yielding representative samples. The sampling plan shall include the following elements:
- a. Well evacuation procedures including volume and methods of purging;
 - b. Sample withdrawal techniques;
 - c. Sampling protocol shall include field measurement of pH, conductivity, and temperature for each sample;
 - d. Sample handling and preservation techniques (including provisions for field filtering, where appropriate);
 - e. Provisions for measuring groundwater elevations at each sampling event;
 - f. Laboratory analytical techniques, including EPA-approved analytical methods and quality assurance, detection levels, quality control procedures as outlined in Attachment 3;
 - g. Procedures for performing a comparison of upgradient and downgradient results to confirm whether or not the SWMUs identified in Condition IV.B.1 are contaminating groundwater. The procedures shall include, at a minimum:
 - 1. A method (statistical or otherwise) to compare upgradient and downgradient samples;
 - 2. A sampling schedule to establish data for comparison. In no case shall sampling exceed 6 months duration.
 - 3. Provisions for submission of a final report to EPA that includes the results of the sampling effort and a discussion of each SWMU's impact on groundwater.

4. The Permittee shall complete the installation of the monitoring well network according to the approved schedule.
5. Within 30 days of installation, the Permittee shall implement the sampling and analysis plan in accordance with the schedule required by Permit Condition IV.B.3(g).
6. The sampling and analysis plan shall include, at a minimum, the following constituents for each well included in the monitoring network:

<u>Constituent</u>	<u>Constituent</u>
Chloride	Antimony
Iron	Arsenic
Manganese	Cadmium
Phenols	Lead
Sodium	Mercury
	Nickel
Sulfate	Zinc
pH	
Specific Conductance	
Total Organic Carbon	
Total Organic Halogen	

7. The Permittee may use existing wells and sampling results to comply with the entire Section IV.B by submitting this information to EPA for approval within 150 days of permit issuance.

C. SOIL AND SEDIMENT SAMPLING

1. Within 180 days of the effective date of this permit, the Permittee shall develop and submit to EPA for approval a plan for conducting a soil and sediment sampling investigation in accordance with the requirements outlined below.

(a) North parking area/smelter sludge filter loading area

- (1) A total of five (5) samples of the top six (6) inches of soil shall be taken from the eastern and southern edge of the subject area. (See Attachment 2 for locations)
- (2) Each sample shall be of sufficient quantity to conduct the EP Toxic procedure for lead and cadmium.

(b) Unnamed Tributary to Bernhart's Creek

- (1) A total of four (4) samples of the top six (6) inches of sediment in the unnamed tributary to Bernhart's Creek shall be taken in the locations indicated in Attachment 2.
- (2) Each sample shall be of sufficient quantity to conduct the EP Toxic procedure for lead and cadmium.

(c) Reporting Requirements

- (1) Upon completion of the soil/sediment sampling and analysis, the results shall be submitted to EPA and the Norristown Office of PADER.**
- (2) Quality Assurance/Quality Control procedures for the soil/sediment sampling and analysis effort shall be in accordance with the guidelines established in Attachment 3 of this permit.**

PART V

RESPONSE TO RELEASE INVESTIGATIONS

- A. Upon completion of the work required in Parts III and IV and submission of results to EPA as required, a decision on further action will be made based on the following guidelines:

1. Sump Integrity Assessment

See Corrective Measures (Permit Condition III.C)

2. Groundwater Monitoring Requirements

If the investigation confirms that the subject SWMUs have released hazardous waste or constituents, the Permittee shall proceed as follows:

- (a) If hazardous constituent levels in groundwater are below the maximum concentration level (MCL), the Permittee will be required to design and implement a compliance monitoring program in accordance with the requirements contained in Attachment 4. EPA may accept a groundwater monitoring program under a PADER solid waste permit as meeting this condition if approved by EPA.

- (1) The compliance monitoring program must be submitted to EPA for approval within 90 days of completion of the groundwater investigation and shall include a schedule for implementation.

- (b) If constituent levels in groundwater exceed the Maximum Concentration Levels (MCL), the Permittee will be required to develop a RCRA Facility Investigation (RFI) in accordance with the requirements contained in Attachment 5. The RFI will be designed to pinpoint the source of contamination, as well as its rate and extent.

- (1) The RFI must be submitted to EPA for approval within 90 days of completion of the groundwater investigation and shall include a schedule for implementation.

- (2) The Permittee shall submit the results of the RFI to EPA according to the approved schedule. EPA will use the RFI to determine the need for corrective action. If corrective action is required, EPA will propose a permit modification that requires the Permittee to conduct a Corrective Measures Study (CMS) for groundwater and implement corrective measures. The permit modification will contain a compliance schedule for both completion of the CMS and implementation of corrective action. The modification will also contain clean-up levels or monitoring levels where appropriate.

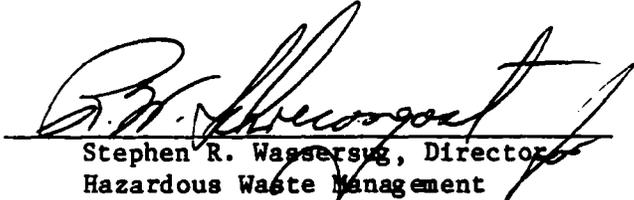
(3) The requirements for a Corrective Measures Study (CMS) are contained in Attachment 6. The requirements for corrective action are outlined in Attachment 7.

(c) Based on information developed under this permit or other information that becomes available to EPA, interim corrective measures may be required at anytime in response to an immediate threat to public health.

3. Soil and Sediment Sampling

- (a) If the results of the investigation carried out in compliance with Permit Condition IV.C indicate lead or cadmium levels above the EP Toxic levels in the sample areas, the Permittee shall prepare a Corrective Measures Study (CMS) for soils in accordance with the requirements outlined in Attachment 6.
- (b) The CMS shall contain a schedule for implementation of the proposed corrective measures. Upon EPA approval, the Permittee shall implement the corrective measures in accordance with this approved schedule.

9/28/88
Date


Stephen R. Wagersug, Director
Hazardous Waste Management

List of Attachments

Attachment 1	RCRA Facility Assessment
Attachment 2	Bernhart Creek Tributary and North Parking Area Sampling Locations
Attachment 3	QA/QC Guidelines
Attachment 4	Compliance Monitoring Guidelines
Attachment 5	RCRA Facility Investigation Guidelines
Attachment 6	Corrective Measures Study
Attachment 7	Corrective Action Outline