



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

FEB 1 1991

Timothy R. Basilone
Westinghouse Electric Co.
Gateway Center
Pittsburgh, PA 15222

FEB 1 1991

RE: North American Philips Lighting Corp.
Bloomfield Twp, Essex County
ECRA Case # 86070
Cleanup Plan Report Dated: July, 1990

Dear Mr. Basilone:

The New Jersey Department of Environmental Protection (NJDEP) has completed its review of the referenced Cleanup Plan. Please be advised that the referenced Cleanup Plan is administratively deficient, technically incomplete, non-responsive and does not satisfy the basic requirements of the NJDEP's letter dated May 18, 1990. In most instances, no sampling has occurred.

Therefore, be advised that the referenced Cleanup Plan is disapproved and North American Philips Lighting Corp. (NAPLC) is, hereby, out of compliance with the Environmental Cleanup Responsibility Act (ECRA) N.J.A.C. 7:26B et. seq. for having failed to submit a responsive Cleanup Plan in the specified timeframe. North American Philips Lighting Corp. shall submit a complete Cleanup Plan within fifteen (15) days of the receipt of this letter. If North American Philips Lighting Corp. fails to submit the required complete Cleanup Plan within the referenced timeframe this case will be referred to the Bureau of ECRA Applicability and Compliance for review. The Department may initiate enforcement action including but not limited to the assessment of penalties pursuant to the N.J.A.C. 7:26B-9.

SOILS

1) Area F. The proposed remediation of Area F primarily involved removal of soil impacted by BN compounds. However, as per the 7/27/88 DEP letter, a minimum of 12 post-excavation samples for BN+15 were required. These results have not been submitted. In addition, two areas indicated heavy metal contamination. The consultant states that these areas will be addressed with the cleanup of the other areas of this site.



Comment - Post-excavation samples for BN+15 (12 samples) shall be submitted. In addition, results and locations of the metal "hits" shall also be submitted.

2) Area T. Remediation in this area was not accomplished due to health and safety reasons. Approximately four (4) cubic yards of PCB contaminated soil is slated to be removed. This excavation, however, will require further effort and discussion with the electrical utility.

Comment - Post-excavation samples, in accordance with the NJDEP Remedial Investigation Guide (RIG) are required for PCBs (4 sidewall and 1 base) in this area.

3) Sump and Catch Basin Cleaning. Soil and sediment was removed from thirty-seven sumps and catch basins onsite. A total of ten sumps were not cleaned due to the presence of low level radiation in nine sumps and mercury in one sump. These (10 sumps) will be cleaned by the radiation and mercury subcontractor.

Once water and sediments were removed, a final cleanup was achieved by flushing the sumps and basins with high pressure water. The sump and basin material (water and sludge) was placed in drums and subsequently tested for RCRA characteristics. These results have not been submitted at this time.

1) Documentation shall be provided confirming that sediment samples were analyzed for PHCs, BN+15, PPM, PCBs and AE+10 as per the DEP letter of 4/10/87.

2) The integrity of all catch basins and sumps shall be verified. The integrity report shall be supported by discernible photo documentation. Based on the integrity investigation, further sampling may be required.

3) Catch basin discharge points shall be traced. Further sampling may be required for this discharge points.

4) Underground Gasoline Storage Tank/500 Gallon. This tank has been removed. Approximately 100 tons of impacted soil have been removed based on visual staining and VO screening. The excavated soil has been stored on-site according to RCRA regulations.

A comprehensive tank excavation report will be submitted upon receipt of post-excavation sampling results.

Comment - As per the DEP letter of 4/10/87, a minimum of three (3) post-excavation samples with analysis for PHCs and VO+15 are required.

5) Area C - Underground Storage Tank Feasibility Study. Area C is located along the western portion of the site, adjacent to a Conrail Corporation retaining wall. Four 20,000 gallon storage tanks are located within this area. Westinghouse Environmental and Geotechnical Services (WEGS) certified professional engineers performed a study to determine the potential for structural damage to the retaining wall adjacent to Area C from tank excavation activities. This wall separates the site from an adjacent Conrail Corporation commuter line.

Fill has been deposited in Area C as a result of the tank and/or wall installation. Borings (5' east of the wall) have indicated PHC, BN, and Hg

contamination at varying depths. PHCs were detected up to 11,200 ppm (CW3-2) and 11,400 ppm at CW5-1. Hg (max.) was 85.2 ppm at CW2-3. Formerly, a proposal for excavation was conditionally approved due to PHC contamination in this area.

The present proposal is for closure of the tanks in-situ and placement of a cap over Area C. Cleaning of the tanks prior to closure in place is recommended. Capping is being proposed due to the presence of a crack in the retaining wall, the variability in soil density and the non-homogeneous fill. Also, removal of the tanks could result in damage and potential collapse of the retaining wall.

Unacceptable - This proposal does not address the high levels of contamination that are present in this area.

- 1) At a minimum, all previous sample results above current NJDEP action levels shall be listed on a scaled site map. Depth and location of all sample results shall be illustrated.
- 2) Certification by a licenced P.E. shall be submitted which supports the above-mentioned reasons for not performing excavation.
- 3) If excavation (total) can not be performed, then a proposal shall be made for a) "hot spot removal" of metals (and all non-PHC contamination) and b) in-situ remediation of PHC contamination.

6) Soil Sampling Program. This soil field sampling plan was developed by WEGS to define the horizontal and vertical extent of contamination in areas A-D, G-L, and R. Soil samples were collected from 57 soil borings throughout the site. A summary of the results is as follows:

- a) Priority Pollutant Metal - Of 135 samples, 90 exceeded current ECRA Action Levels.
- b) PHC - Of 84 soil samples, 31 exceeded the action level of 100 ppm.
- c) Volatile Organics - Of 67 samples, 14 exceeded 1 ppm.
- d) Semi-Volatiles - Of 25, all were below the action level of 10 ppm.

A summary of the results (main contaminant above action level) area is as follows:

- | | |
|--------|---|
| AEC A) | PPM with Mercury as the main contaminant, PHCs, VOs. |
| AEC B) | PPM with Mercury as the main contaminant. |
| AEC C) | Mainly Mercury, PHCs. |
| AEC D) | PPM with Mercury and Arsenic as the main contaminants, PHCs |
| AEC G) | all below action levels. |
| AEC H) | Mainly Mercury. |
| AEC I) | Mainly Mercury. |
| AEC J) | PPM with Mercury, Lead, Chromium and Arsenic as the main contaminants, VOs. |
| AEC K) | Mainly Mercury. |
| AEC L) | Mainly Mercury. |
| AEC R) | PHCs. |

Comments - A proposal has not been made for either further delineation or excavation/remediation with post excavation analysis. This shall be submitted in the form of a sampling plan addendum for each AEC (A-D, G-L and R).

7) Muric Acid Tanks. NAPLC shall sample stained exterior areas for PPM and pH. Refer to the RIG for sampling protocols.

8) NAPLC shall sample all exterior stains encountered during the D/D plan for the area specific parameter.

INTERIOR DECOMMISSIONING

The cleanup plan for the mercury interior decontamination is conditionally acceptable.

Interior Mercury Decontamination. An interior sampling and analysis plan was implemented during July and August of 1986. The action level of 0.05 mg Hg/m³ of air was utilized since this level was not rejected by NJDEP. Subsequent to this survey, remediation of areas with high readings and/or visible beads/pools of mercury took place. Post cleanup testing was conducted using the 0.05 mg/m³ action level. Areas were either considered clean or targeted for additional cleanup.

The latest proposal is for a 0.001 mg Hg/m³ (action/cleanup level). The instrumentation that is proposed is the Jerome 411 Gold Film Mercury Vapor Analyzer, Jerome 422 Dosimeter Controllers, Jerome Gold Coil Personal Mercury Dosimeters and adjustable flow rate sampling pumps.

A mercury survey will be performed in all previously surveyed and/or remediated areas in order to confirm mercury vapor concentrations of 0.001 mg Hg/m³ or less (in the breathing zone). Areas that are greater than 0.001 mg Hg/m³ will be scheduled for remediation. Remediation will also take place in areas where visible mercury is found.

Conditionally Acceptable -

- 1) Since the Jerome instrument is in essence a field instrument, a certain portion of samples (non-delineation) shall be verified by a laboratory analytical method. Therefore, a minimum of 10% of all samples analyzed by the Jerome Instrument Method that indicate a concentration of 0.001 mg Hg/m³ or less shall be verified by the Silver Wool Method. The name of the laboratory which will perform the Silver Wool Method shall be provided prior to start of the mercury sampling. In addition, a summary of sampling and analytical procedures as per the Silver Wool Method shall also be submitted prior to the sampling in the form of an addendum.
- 2) The type of mercury remediation shall also be submitted in the form of an addendum. References supporting the efficiency of this method shall also be submitted.
- 3) Based on the contaminant present in each area (as per page 12 of Attachment II) pre-sampling and post sampling shall be conducted in the form of wipes, since metallic residues are the main contaminant. A minimum of one (1) background and one (1) worst case pre-sample shall be taken where decontamination is to take place. The sampling rate shall be at a frequency of one sample per every 900 square feet.
- 4) The following QA/QC procedures and documentation pertain specifically to the Jerome methodology. Pre and post calibration of the adjustable flow rate pump shall be performed daily and documentation to this effect shall be submitted.

- a) A daily check calibration of the model 411 shall be performed and documentation to this effect shall be submitted (as per p. 14-16 of the manual). The three lcc injections shall be within +5% of each other before instrument can be used.
 - b) All Data-Mate printouts shall be submitted as verification of actual Hg results for all samples. Each printout shall be clearly labeled as to sample location, date, sampler, etc.
 - c) If a flow-splitter is used with the dosimeter in order to prevent loss of a high sample, then daily calibration of the flow-splitter shall take place and documentation to this effect shall be submitted.
- 5) In each location where air sampling is performed, a post-remediation sample shall also be taken. This shall be a wipe for non-porous surfaces or a chip sample for porous surfaces.
 - 6) It has been indicated that one sump contained mercury (see item #3). Therefore, in addition to remediation and the integrity investigation, Hg air sampling and chip sampling will also be required at this sump location.
 - 7) The integrity of all interior pits, sumps, trenches, floor drains, and so forth shall be determined and photographic documentation submitted. Based on results of this investigation, confirmatory sampling may be required.

DATA COMMENTS:

The laboratory which performed all non-radiological analyses - First Environmental Laboratories, Inc. (NJ #14772) is acceptable based on ECRA requirements.

The laboratory which performed radiological analyses - Controls For Environmental Pollution (Santa Fe, New Mexico) is conditionally acceptable. See comments under Laboratory and Deliverables Section.

All non-radiological data are acceptable except for AEC C. See comments under Labs and Deliverables section.

Laboratory and Deliverables

The laboratory which ran the radiological analyses - Controls For Environmental Pollution is U.S. EPA certified for radiological analyses. However, 1) radiological procedures and 2) interlaboratory comparison study data shall be submitted before the radiological analyses can be evaluated. This submission (non-radiological) would then be reviewed by BER (Bureau of Environmental Radiation).

All deliverables (non-radiological) are acceptable except for the following BN samples, which seem to indicate PHC interference:

- CW1-1 - High MDL, RIC indicates PHC interference, sample re-analysis (BN+15) required.
- CW1-2 - extremely high MDLs (37 ppm), sample re-analysis (BN+15)

required.

CW3-3 - extremely high MDLs (37 ppm), sample re-analysis (BN+15) required.

CW2-2, CW3-1, CW3-2, CW5-1 - RIC indicates PHC interference however all QA/QC associated with these four (4) samples is acceptable. Sample re-analysis is not required.

Health and Safety Plan - Acceptable.

Comments

1. For all future BN analysis, where PHC values exceed 500 ppm, it is recommended that EPA methods 3650 (matrix cleanup) and 3611 (alumina partition) precede the BN analyses of the aromatic fraction. This is recommended since PHC interference will result in low BN results.
2. Wipe and chip sampling shall be performed in accordance with the DEP Field Sampling Procedures Manual. However, wipes for Hg shall be pre-moistened with distilled water and not hexane as per the CERCLA QA Manual/89.

GROUND WATER

Ground water data from the 10 existing wells show contamination consisting of metals, BNs, VOs and radioactive compounds. The contamination has not been delineated and no proposal was submitted outlining delineation. In addition, there are a number of areas that are not monitored with wells. the installation of wells in these areas was delayed to allow the removal of contaminated soil. However, years have passed and none of the soil has been remediated. Ground water characterization can no longer be delayed.

In the next Cleanup Plan to be submitted, the following information shall be included.

1. An additional well is required in Area J. The well cluster installed to monitor this area does not appear to be downgradient of the areas of concern.
2. Wells CC-2, CC-3, and CC-4 shall be completed as well clusters. The design shall follow that of CC-5 and BW1.
3. The integrity of the onsite sewer system has never been verified. A video camera investigation of the sewer system shall be provided to the Department.
4. Two wells are required to monitor the 20,000 gallon tanks at the western edge of the facility. An additional well is required downgradient of gasoline tank and another downgradient of the 10,000 gallon day tank.
5. The former reservoir area is contaminated with radioactive compounds. In the December 1987 submittal, NAPLC proposed the removal of soils from this area. No soil has been removed yet NAPLC claims that the exterior radiological work is complete. One well is required to monitor the filled in reservoir area.
6. All onsite wells shall be sampled for VO+15, Priority Pollutant Metals, Gross Alpha and Beta, Gamma Activity, Ra-226, Ra-228, Th-232, U-238, U-234, U-235, pH, and Specific Conductivity. Wells monitoring the UGSTs shall be

sampled based on their content as per the RIG.

7. All onsite production wells shall be sealed and replaced with monitoring well clusters adjacent to them.

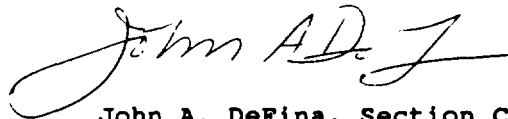
8. Monitoring Well Certification Forms: Form A (As-Built Certification) and Form B (Location Certification) shall be completed for each ground water monitoring well installed. Form A shall be submitted within thirty (30) days after completion of each monitoring well. Because additional wells are sometimes required to complete a hydrogeologic investigation, Form B may be submitted after completion of the installation of all required ground water monitoring wells unless required prior to that time by the Department.

GENERAL

Please be advised that this letter does not represent an extension, nor does it relieve North American Philips Lighting Corp. of any obligations or responsibilities set forth in the regulations promulgated pursuant to the Environmental Cleanup Responsibility Act. The NJDEP reserves its right to assess penalties from the original due date.

If you have any questions regarding this matter, please contact the Case Manager, Arnold L. Gray, Ph.D., at 609-633-7141.

Sincerely,



John A. DeFina, Section Chief
Bureau of Environmental Evaluation and
Cleanup Responsibility Assessment

cc: Anthony Cinque, BEAC
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