



PECO ENERGY

PECO Energy Company
2301 Market Street
PO Box 8699
Philadelphia, PA 19101-8699
215 841 4000

May 24, 1994

Mr. James Newbold
Department of Environmental Resources
Bureau of Water Quality Management
Suite 6010, Lee Park
555 North Lane
Conshohocken, PA 19428

Dear Mr. Newbold:

Subject: Limerick Generating Station NPDES Permit No. PA0051926
Request for Approval to Use Betz Bio-Trol 107

Pursuant to Chapter 92.7, "Reporting of New or Increased Discharges," of the Department's Rules and Regulations, we are requesting the subject permit be amended to allow for the use of the Betz biocide Bio-Trol 107 (a glutaraldehyde solution) in the treatment of a radioactive spent resin and sludge waste material at the subject facility. The product will be used as a disinfectant for killing methane producing bacteria contained in the waste material. The removal of the methane producing bacteria prior to shipping is required by the Department of Transportation. In addition, the disposal facility operator, Chem Nuclear Systems, Inc., also requires the removal of the bacteria before the waste material can be approved for burial at their low-level radioactive waste disposal site.

Up to two liters of the Betz Bio-Trol 107 will be mixed with the waste material in a 1,500 gallon high integrity container. The product will be recirculated through the container for approximately four hours and then remain in contact with the waste material for approximately two days. Once the waste material has been successfully disinfected, the water will be decanted off and placed in a separate 1,500 gallon container. The pH of the wastewater in the container will be raised to promote destruction of the biocide. After neutralization, the effluent will be discharged to the floor drain system and to a large collection tank in the liquid radwaste treatment system. The wastewater will then be filtered and demineralized. Further reduction of the biocide will take place due to the demineralizing process. The wastewater then goes to the floor drain sample tank and, if within sample limits, discharges and mixes with cooling tower blowdown (via monitoring point 301) and eventually to outfall 001. The expected concentration of the product in the effluent at outfall 001 is less than 1 mg/l. The worst case concentration, in which no destruction or removal of the biocide takes place, is 5 mg/l.

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PDR ADDOCK 05000352
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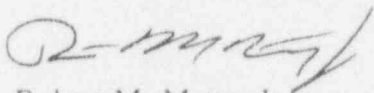
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Enclosed is a copy of the Material Safety Data Sheets (MSDS) and the Aquatic Toxicity Data for the product. Due to time constraints associated with the disposal facility, we would like to ship the material by June 10, 1994. Therefore, we are requesting that a favorable response be received by June 6, 1994.

A copy of this letter (including any attachments or enclosures) is being sent to the U.S. Nuclear Regulatory Commission (USNRC) in accordance with the Limerick Generating Station, Units 1 and 2, Environmental Protection Plan, Section 3.2, which stipulates that the USNRC shall receive a copy of any proposed changes to the NPDES permit at the same time that the permitting agency is notified.

If you have any questions or require additional information, please contact me at (215) 841-5177.

Sincerely,



Robert M. Matty, Jr.
Engineer
Environmental Affairs

Attachment

cc: U.S. Nuclear Regulatory Commission, Document Control Desk
(Docket Nos. 50-352 and 50-353 & License Nos. NPF-39 and NPF-85)
T. T. Martin, Administrator, USNRC, Region I
N. S. Perry, USNRC Senior Resident Inspector, LGS

BETZ LABORATORIES, INC.
4636 SOMERTON ROAD, TREVOSE, PA. 19053
BETZ MATERIAL SAFETY DATA SHEET
EMERGENCY TELEPHONE (HEALTH/ACCIDENT) 800-877-1940

(PAGE 1 OF 3)
EFFECTIVE DATE: 08-17-93
PRINTED: 08-17-93

PRODUCT : BIO-TROL 107

PRODUCT APPLICATION: SOLID MICROBIAL CONTROL AGENT.

-----SECTION 1-----HAZARDOUS INGREDIENTS-----

INFORMATION ON PHYSICAL HAZARDS, HEALTH HAZARDS, PEL'S AND TLV'S FOR SPECIFIC PRODUCT INGREDIENTS AS REQUIRED BY THE OSHA HAZARD COMMUNICATIONS STANDARD IS LISTED. REFER TO SECTION 4 (PAGE 2) FOR OUR ASSESSMENT OF THE POTENTIAL ACUTE AND CHRONIC HAZARDS OF THIS FORMULATION. THIS PRODUCT IS SUBJECT TO THE PENNSYLVANIA AND NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW LAW.

GLUTARALDEHYDE***CAS# 111-30-8; SKIN, EYE AND RESPIRATORY
IRRITANT, POTENTIAL SKIN SENSITIZER; ABSORBED; TOXIC (ORAL INGESTION);
PEL: 0.2PPM-C; TLV: 0.2PPM-C

NONHAZARD INGREDIENTS: WATER (CAS# 7732-18-5)

-----SECTION 2-----TYPICAL PHYSICAL DATA-----

PH: AS IS (APPROX.)	3.5	ODOR: SLIGHT ACID	
FL. PT. (DEG. F):	> 200 P-M (CC)	SP. GR. (70F):	1.120
VAPOR PRESSURE (mmHG):	14.7	VAPOR DENSITY (AIR=1):	> 1.00
VISC cps 70F:	28	% SOLUBILITY (WATER):	100.0
EVAP RATE: <	1.00 (ETHER=1)	APPEARANCE: COLORLESS	
PHYSICAL STATE: LIQUID		FREEZE POINT (DEG. F):	1.00

-----SECTION 3-----REACTIVITY DATA-----

STABLE. MAY REACT WITH STRONG OXIDIZERS. DO NOT CONTAMINATE. BETZ TANK
CLEAN-OUT CATEGORY 'B'

THERMAL DECOMPOSITION (DESTRUCTIVE FIRES) YIELDS ELEMENTAL OXIDES.

BETZ MATERIAL SAFETY DATA SHEET (PAGE 2 OF 3)

PRODUCT : BIO-TROL 107

-----SECTION 4-----HEALTH HAZARD EFFECTS-----

ACUTE SKIN EFFECTS *** PRIMARY ROUTE OF EXPOSURE

CORROSIVE TO SKIN.ABSORBED BY SKIN.POTENTIAL SKIN SENSITIZER.

ACUTE EYE EFFECTS ***

CORROSIVE TO THE EYES

ACUTE RESPIRATORY EFFECTS *** PRIMARY ROUTE OF EXPOSURE

VAPORS,GASES,MISTS AND/OR AEROSOLS CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

CHRONIC EFFECTS OF OVEREXPOSURE***

PROLONGED OR REPEATED CONTACT MAY CAUSE TISSUE NECROSIS AND/OR DERMATITIS.

MEDICAL CONDITIONS AGGRAVATED ***

NOT KNOWN

SYMPTOMS OF EXPOSURE ***

VAPORS MAY CAUSE IRRITATION OF EYES AND/OR RESPIRATORY TRACT LEADING TO DIZZINESS,DROWSINESS,HEADACHE AND NAUSEA; SKIN CONTACT MAY CAUSE MODERATE IRRITATION TO BURNS,DEPENDENT ON LENGTH OF EXPOSURE.

PRECAUTIONARY STATEMENT BASED ON TESTING RESULTS ***

MAY BE TOXIC IF ORALLY INGESTED.

-----SECTION 5-----FIRST AID INSTRUCTIONS-----

SKIN CONTACT ***

REMOVE CONTAMINATED CLOTHING.WASH EXPOSED AREA WITH A LARGE QUANTITY OF SOAP SOLUTION OR WATER FOR 15 MINUTES

EYE CONTACT***

IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES.IMMEDIATELY CONTACT A PHYSICIAN FOR ADDITIONAL TREATMENT

INHALATION EXPOSURE***

REMOVE VICTIM FROM CONTAMINATED AREA.APPLY NECESSARY FIRST AID TREATMENT.IMMEDIATELY CONTACT A PHYSICIAN.

INGESTION***

DO NOT FEED ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSIVE VICTIM
DO NOT INDUCE VOMITING.IMMEDIATELY CONTACT PHYSICIAN. DILUTE CONTENTS OF STOMACH USING 3-4 GLASSES MILK OR WATER

-----SECTION 6-----SPILL,DISPOSAL AND FIRE INSTRUCTIONS-----

SPILL INSTRUCTIONS***

VENTILATE AREA,USE SPECIFIED PROTECTIVE EQUIPMENT.CONTAIN AND ABSORB ON ABSORBANT MATERIAL.PLACE IN WASTE DISPOSAL CONTAINER.THE CONTAMINATED ABSORBANT SHOULD BE CONSIDERED A PESTICIDE AND DISPOSED OF IN AN APPROVED PESTICIDE LANDFILL.SEE PRODUCT LABEL STORAGE AND DISPOSAL INSTRUCTIONS.

FLUSH AREA WITH WATER. WET AREA MAY BE SLIPPERY. SPREAD SAND/GRIT.

DISPOSAL INSTRUCTIONS****

WATER CONTAMINATED WITH THIS PRODUCT MAY BE SENT TO A SANITARY SEWER TREATMENT FACILITY,IN ACCORDANCE WITH ANY LOCAL AGREEMENT,A PERMITTED WASTE TREATMENT FACILITY OR DISCHARGED UNDER A NPDES PERMIT PRODUCT(AS IS)-

INCINERATE OR BURY IN APPROVED LANDFILL

FIRE EXTINGUISHING INSTRUCTIONS***

FIREFIGHTERS SHOULD WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS(FULL FACE-PIECE TYPE).PROPER FIRE EXTINGUISHING MEDIA:
DRY CHEMICAL,CARBON DIOXIDE,FOAM OR WATER

BETZ MATERIAL SAFETY DATA SHEET (PAGE 3 OF 3)

PRODUCT : BIO-TROL 107

SECTION 7-----SPECIAL PROTECTIVE EQUIPMENT-----
USE PROTECTIVE EQUIPMENT IN ACCORDANCE WITH 29CFR SECTION 1910.132-134. USE
RESPIRATORS WITHIN USE LIMITATIONS OR ELSE USE SUPPLIED AIR RESPIRATORS.
VENTILATION PROTECTION***

ADEQUATE VENTILATION TO MAINTAIN AIR CONTAMINANTS BELOW EXPOSURE LIMITS
RECOMMENDED RESPIRATORY PROTECTION***
IF VENTILATION IS INADEQUATE OR SIGNIFICANT PRODUCT EXPOSURE IS LIKELY,
USE RESPIRATOR WITH ORGANIC VAPOR, HIGH EFFICIENCY PARTICULATE CARTRIDGES

RECOMMENDED SKIN PROTECTION***
GAUNTLET-TYPE RUBBER GLOVES, RUBBER BOOTS & CHEMICAL RESISTANT APRON
WASH OFF AFTER EACH USE REPLACE AS NECESSARY.
RECOMMENDED EYE PROTECTION***
SPLASH PROOF CHEMICAL GOGGLES. FACE SHIELD

SECTION 8-----STORAGE AND HANDLING PRECAUTIONS-----
STORAGE INSTRUCTIONS***
KEEP CONTAINERS CLOSED WHEN NOT IN USE.
STORE IN COOL VENTILATED LOCATION. STORE AWAY FROM OXIDIZERS

HANDLING INSTRUCTIONS***
ACIDIC, CORROSIVE (SKIN/EYES). DO NOT MIX WITH ALKALINE MATERIAL.

THIS MSDS WAS WRITTEN TO COMPLY WITH THE OSHA HAZARD COMMUNICATION STANDARD

APPENDIX: REGULATORY INFORMATION
THE CONTENT OF THIS APPENDIX REPRESENTS INFORMATION KNOWN TO BETZ ON THE
EFFECTIVE DATE OF THIS MSDS. THIS INFORMATION IS BELIEVED TO BE ACCURATE.
ANY CHANGES IN REGULATIONS WILL RESULT IN UPDATED VERSIONS OF THIS DOCUMENT.

...TSCA: THIS IS AN EPA REGISTERED BIOCIDES AND IS EXEMPT FROM TSCA INVENTORY
REQUIREMENTS

...FIFRA(40CFR): EPA REG. NO.: 10352-22-3876
...REPORTABLE QUANTITY (RQ) FOR UNDILUTED PRODUCT:
NOT APPLICABLE

...RCRA: IF THIS PRODUCT IS DISCARDED AS A WASTE, THE RCRA HAZARDOUS WASTE
IDENTIFICATION NUMBER IS: D002-CORROSIVE (SKIN)

...DOT HAZARD/UN#/ER GUIDE# IS : CORROSIVE TO SKIN/UN1760/#60
...CALIFORNIA SAFE DRINKING WATER ACT, (PROPOSITION 65) MATERIALS: NONE

...SARA SECTION 302 CHEMICALS: NONE
...SARA SECTION 313 CHEMICALS: NONE
...SARA SECTION 312 HAZARD CLASS: IMMEDIATE (ACUTE); DELAYED (CHRONIC)
...MICHIGAN CRITICAL MATERIALS: NONE

NFPA/HMIS : HEALTH - 3; FIRE - 1; REACTIVITY - 0; SPECIAL - CORR; PE - X

BETZ LABORATORIES, INC.
4636 SOMERTON ROAD, TREVOSE, PA 19033

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May 24, 1994

AQUATIC TOXICOLOGY

Rainbow Trout 96 Hour Static Acute Bioassay

LC50: 23.7 mg/L
No Effect Level: 10

Daphnia magna 48 Hour Static Acute Bioassay

LC50: 11.5 mg/L
No Effect Level: 5

Bluegill Sunfish 96 Hour Static Acute Bioassay

LC50: 22.4 mg/L
No Effect Level: 10

Fathead Minnow 96 Hour Static Acute Bioassay

LC50: 12 mg/L
No Effect Level: 7.8

BIODEGRADATION

NO DATA AVAILABLE

MAMMALIAN TOXICOLOGY

Oral LD50 RAT: 298 MG/KG
Note - ESTIMATED VALUE

Dermal LD50 RABBIT: >5,000 MG/KG
Note - ESTIMATED VALUE