

PERRY NUCLEAR POWER PLANT

10 CENTER ROAD
PERRY, OHIO 44781
(216) 259-3737

Mail Address:
PO. BOX 97
PERRY, OHIO 44081

Michael D. Lyster
VICE PRESIDENT - NUCLEAR

April 9, 1992
PY-CEI/OEPA - 0151L

Kim Jackson
Ohio Environmental Protection Agency
Division of Water Pollution Control
Enforcement and Compliance Section
1800 Watermark Drive, P.O. Box 1049
Columbus, Ohio 43266-0149

Re: Perry Nuclear Power Plant
NPDES Permit No. 31B0016DD
Cooling Water Additive for
Nonroutine Heat Exchanger Cleaning

Dear Ms. Jackson,

The Perry Nuclear Power Plant has enlisted Bett Industrial to assist in the removal of calcium carbonate scale from an emergency service water heat exchanger twice during the current outage. The proposed method is to add Bett DE-1579 to the heat exchanger for two 48 hour treatments. The discharge will be continuous during each treatment; it will be combined with untreated service water prior to entering state waters.

This product and procedure will only be used for cleaning and is not part of routine daily operation. This product was approved for a similar application at the Perry Plant in June 1989 (see Attachment 1).

Attachments 2 - 5 contain the information required in accordance with Ohio EPA procedures. Our intention is to begin the first treatment during the week of April 13, 1992, pending your approval; we would appreciate your notifying us of the results of your evaluation as soon as possible. Please contact Louise Barton at (216) 259-3737 ext. 5512 with your results, or if you have questions or need further information.

Sincerely,

Michael D. Lyster

MDL:lkb:ss

cc: NRC Document Control Desk
NRC Project Manager
NRC Resident Inspector Office
NRC Region III
B. Hall, OEPA - Northeast District Office
9204160147 920409
PDR ADDCK 03000440
P PDR

Operating Company
Division of Electric Supply
Trade File No.

140030

C001



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1300 WaterMark Dr.
Columbus, Ohio 43266-0149

Richard F. Celeste
Governor

June 20, 1989

Re: Cooling Water Additive Request
Perry Nuclear Power Plant
OEPA No. 31B00016*CD
NPDES No. OH0063461

Raymond M. Post, P.E.
Engineering Group Leader
Betz Industrial
4636 Somerton Road
Trevose, PA 19047-0783

Dear Mr. Post:

Your request, which was submitted in accordance with Part II of the above referenced NPDES permit, to discharge Betz DE-1579, Betz GCP-109 and Betz GCP-127, cooling water additives, at concentrations of 250 mg/l, 20 mg/l, 30 mg/l respectively to Lake Erie at the above referenced facility is hereby approved.

Please note the approval is given subject to the understanding that these additives are used for cleaning on a temporary basis and are not a part of routine daily operation. We also understand that pH of the final effluent will be controlled within the permit guidelines and that proposed concentrations of the additives Betz DE-1579 and Betz GCP-109 would decrease to 100 mg/l and 0.8 mg/l respectively within 24 hours of discharge.

If you wish to discharge these additives at a greater concentration or use an alternative additive, then a separate approval from Ohio EPA must be acquired prior to the change. If you have any further questions, please contact Swaraj K. Chakrabarti of my staff at (614) 644-2001.

Sincerely,

A handwritten signature in cursive script, appearing to read "John J. Sedzewicz".

John J. Sedzewicz, P.E.
Manager, Permits Section
Division of Water Pollution Control

JJS/EKC/mds
0089F/29

cc: Martin Hilovsky, WEDO
Swaraj K. Chakrabarti, DWPC

Cooling Water Additive Information

1. Name of the additive to be used and general product information.

Additive Name - Betz DE-1579

- a. MSDS - Attachment 3
- b, c, & e. Ingredient information - Attachment 4
- d. The additive will be used to remove calcium carbonate scale from a plant heat exchanger.

2. The concentration of the additive to be used (ug/l).

- a. The additive will be applied twice during the current refueling outage.
- b. Each application will last 48 hours.
- c. The additive will be fed by metering pump to ensure feed concentration.

3. The expected concentration of the additive contained in the discharge immediately prior to entering state surface waters.

The expected discharge concentration is 30 mg/l. (The analytical detection limit is 5 mg/l.)

4. The average flowrate (MGD) and the outfall number of each outfall containing the additive.

The volume of blowdown entering the discharge stream will be approximately 1.08 - 1.44 MGD. The total discharge flowrate will be approximately 82.08 MGD. A line drawing is Attachment 5.

5. Name of the state surface waters that receive the discharge.

Lake Erie

6. Toxicity information for the additive.

Adjusted pH:

- 48-hour - Daphnia magna - 0% mortality at 10,000 mg/l
 48-hour - Rainbow trout - 0% mortality at 2,500 mg/l
 100% mortality at 5,000 mg/l

Unadjusted pH:

- 48-hour LC₅₀ - Rainbow trout - 625 mg/l

The above results are in accordance with EPA static bioassay procedures. Conditions for the first set of data were modified to maintain the pH at 8.0. The unadjusted pH data reflects the fact that Betz DE-1579 is acidic (pH 2.5). The pH of the final effluent at Perry during the application will be maintained within the NPDES permit guidelines of 6.5 - 9.0, which will eliminate low pH induced mortality.

BETZ INDUSTRIAL DIV.
 1 QUALITY WAY, TREVOSE, PA. 19053
 BETZ MATERIAL SAFETY DATA SHEET (PAGE 1 OF 3)
 EMERGENCY TELEPHONE (HEALTH/ACCIDENT) (800) 877-1940
 EFFECTIVE DATE 02-16-91

Product: BETZ DE-1579

PRINTED:
 REVISIONS TO SECTIONS: -; EDIT: APPENDIX

PRODUCT APPLICATION: CHEMICAL CLEANING COMPOUND.

-----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.

TRADE SECRET INGREDIENT(122);NUISANCE DUST;POSSIBLE EYE IRRITANT;
 PEL:NUISANCE DUST;TLV:NUISANCE DUST. TSNR 125438 - 5214P

TRADE SECRET INGREDIENT(E195);EYE IRRITANT;PEL:NONE;TLV:NONE. TSNR 125438
 - 5118P

NITRIC ACID***CAS#7697-37-2;OXIDIZER;CORROSIVE;PULMONARY DAMAGE;DENTAL
 EROSION;PEL/TLV:5MG/M3(10MG/M3-STEL).

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 DOCUMENT CONTROL

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

PH: AS IS	(APPROX.) 1.4	ODOR: PUNGENT
FL.PT.(DEG.F):	200 P-M(CC)	SP.GR.(70F)OR DENSITY: 1.070
VAPOR PRESSURE(mmHG):	36	VAPOR DENSITY(AIR=1): 1
VISC cp@70F:	9	%SOLUBILITY(WATER): 100
EVAP.RATE: 1	ETHER=1	APPEARANCE: COLORLESS TO GREEN
PHYSICAL STATE: LIQUID		FREEZE POINT(DEG.F): 27

-----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.

INFORMATION
 ONLY

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

ACUTE SKIN EFFECTS *** PRIMARY ROUTE OF EXPOSURE
 SLIGHTLY IRRITATING TO THE SKIN
 ACUTE EYE EFFECTS ***
 SEVERE IRRITANT 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 EXPOSURE MAY CAUSE LUNG DAMAGE AND/OR MAY CAUSE
 PRIMARY IRRITANT DERMATITIS.
 MEDICAL CONDITIONS AGGRAVATED ***
 NOT KNOWN

SYMPTOMS OF EXPOSURE ***
 INHALATION MAY CAUSE IRRITATION OF RESPIRATORY TRACT; SKIN CONTACT MAY
 CAUSE ITCHING AND/OR REDNESS.

PRECAUTIONARY STATEMENT BASED ON TESTING RESULTS ***
 MAY BE TOXIC IF ORALLY INGESTED OR INHALED.

-----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 TO FRESH AIR. APPLY APPROPRIATE
 FIRST AID TREATMENT AS NECESSARY
 INGESTION***
 DO NOT FEED ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSIVE VICTIM
 DO NOT INDUCE VOMITING. IMMEDIATE 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 ABSORBENT MATERIAL. PLACE IN WASTE DISPOSAL CONTAINER. THE WASTE
 CHARACTERISTICS OF THE ABSORBED MATERIAL, OR ANY CONTAMINATED SOIL,
 SHOULD BE DETERMINED IN ACCORDANCE WITH RCRA REGULATIONS.
 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

INFORMATION
 ONLY

-----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 A RESPIRATOR WITH DUST/MIST FILTERS.

RECOMMENDED SKIN PROTECTION***

NEOPRENE GLOVES

WASH OFF AFTER EACH USE. REPLACE AS NECESSARY

RECOMMENDED EYE PROTECTION***

SPLASH PROOF CHEMICAL GOGGLES

-----SECTION 8-----STORAGE AND HANDLING PRECAUTIONS-----

STORAGE INSTRUCTIONS***

KEEP DRUMS & PAILS CLOSED WHEN NOT IN USE.

PROTECT FROM FREEZING. KEEP DRY

HANDLING INSTRUCTIONS***

CONTAINS AN OXIDIZER. AVOID ALL CONTACT WITH REDUCING AGENTS,

OILS, GREASES, ORGANICS AND ACIDS.

 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: ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY

...REPORTABLE QUANTITY(RQ) FOR UNDILUTED PRODUCT:

5,511 GALLONS DUE TO NITRIC ACID; 11,222 GALLONS DUE TO (122)

...RCRA: IF THIS PRODUCT IS DISCARDED AS A WASTE, THE RCRA HAZARDOUS WASTE

IDENTIFICATION NUMBER IS: D002-CORROSIVE(PH, STEEL)

...DOT HAZARD/UN#/ER GUIDE# IS: CORROSIVE TO STEEL UN1760/#60

...CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) MATERIALS: NONE

...SARA SECTION 302 CHEMICALS: NITRIC ACID(7697-37-2) ;

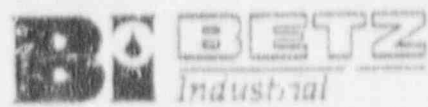
...SARA SECTION 313 CHEMICALS: NITRIC ACID(7697-37-2) ; 2.0-5.0% ;

...SARA SECTION 312 HAZARD CLASS: IMMEDIATE(ACUTE), DELAYED(CHRONIC) AND FIRE

...MICHIGAN CRITICAL MATERIALS: NONE

NFPA/HMIS : HEALTH - 2 ; FIRE - 1 ; REACTIVITY - 0 ; SPECIAL - CORR ; PE - B

INFORMATION
 ONLY



ATTACHMENT 4

Betz Industrial
1 Quality Way
Piquette, PA 19053-6783
215-355-3300
Fax: 215-353-2473

April 7, 1992

Ms. Louise Barton
CEI Perry Nuclear Power Plant
10 Center Road
Perry, OH 44081

Dear Ms. Barton:

Betz DE-1579, a calcium carbonate scale remover, is a proprietary aqueous blend of weak organic acids.

Because this product is not a regulated antimicrobial biocide it does not require nor does it possess a FIFRA registration number. Only EPA registered antimicrobial biocides require this registration.

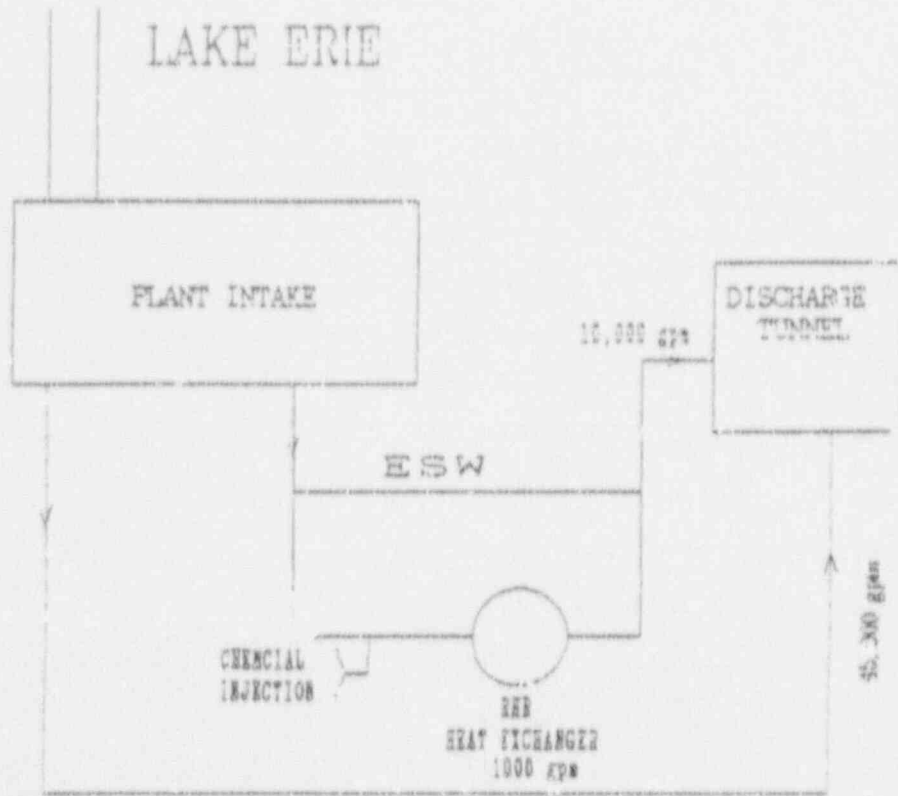
If you have any further questions, please feel free to call me.

Very truly yours,

BETZ INDUSTRIAL

Jeff Wilson
Area Manager
Lake Land Power District
(219) 277-8830

FAX - 216-255-5915 (Attn. Jeff Wilson)
Mail zone TA-5 - ext. 6636



— SW
— ESW