

DED Reed 4/10/97

40-7604



**BP CHEMICALS**

BP Chemicals Inc.  
Ft. Amanda Road  
P.O. Box 628  
Lima, Ohio 45802-0628  
(419) 226-1200

VIA OVERNIGHT MAIL

Mr. Sam Nalluswami  
Low-Level Waste and Decommissioning Projects Branch  
Division of Waste Management  
Office of Nuclear Materials and Safeguards  
United States Nuclear Regulatory Commission  
Two White Flint North  
11545 Rockville Road  
North Bethesda, MD 20852

December 12, 1996

Re: License No. SUB-908  
Docket No. 040-07604

Subject: Mixed Waste Pond Closure Project  
Field Change No. 023

Dear Sir:

In accordance with the mixed waste pond closure project field change approval procedure (BPCI Administrative Procedure AP-02), BP Chemicals, Inc. (BPCI) herewith submits for NRC review proposed Field Change No. 023. This field change requests authorization to use a substitute material for the geotextile specified in Specification 13400. The substitute geotextile will have a rated flow rate of 45 gpm per square foot versus the specified 50 gpm per square foot. It will also have a UV light resistance of 80% versus the specified 85%. The original specification was written in 1991 and no material is currently available which can meet these requirements.

Included for your review is a specification sheet for Synthetic Industries Type 400R Woven Geotextile.

Your concurrence for this proposed field change is requested. This proposed field change has also been submitted to Ohio EPA. If there are any questions, please give me a call at (419) 226-1299.

Sincerely,

William M. Rupert, PE  
Project Manager

cc: Ed Kulzer, USNRC Region 3  
Jim Ottarson, Ohio EPA  
Ruth Vandegrift, ODH

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BP CHEMICALS, INC.  
MIXED WASTE POND CLOSURE PROJECT

**FIELD CHANGE REQUEST FORM**

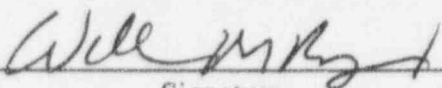
Field Change Number: 023 Date: 10/15/96

Subject: Geotextile Substitution

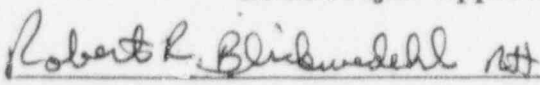
Description: Authorize use of a substitute material having a rated flow rate of 45 gpm per sq. ft. versus 50 gpm per sq. ft. and a UV light resistance of 80% versus 85%.

Justification: Specified materials as called for in Specification 13400 are no longer available; specification was written in 1991.

Attachments: Spec. sheet for Synthetic Industries 400R Woven Geotextile

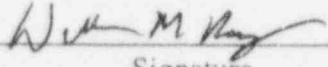
Requested by:  BPCI 10/15/96  
Signature Company Date

**BPCI Project Approvals**

Dames & Moore  Yes No 10/15/96  
Certifying Engineer Signature Approval Date

BPCI Radiation NOT APPLICABLE Yes No —  
Safety Officer Signature Approval Date

BPCI HSE NOT APPLICABLE Yes No —  
Manager Signature Approval Date

BPCI Project  Yes No 10-15-96  
Manager Signature Approval Date

**Regulatory Agency Concurrence**

Ohio EPA Yes No  
Concurrence Signature Concur Date

NRC Yes No  
Concurrence Signature Concur Date

**SYNTHETIC INDUSTRIES**

Geosynthetic Products Division

**REINFORCER™ 400R****Woven Geotextile**

REINFORCER™ 400R is a woven polypropylene geotextile containing heavy monofilament (warp) and fibrillated (fill) yarns. The individual yarns are woven in a unique twill pattern to form a strong geotextile with superior hydraulic properties. These characteristics make the REINFORCER™ 400R ideal for the construction of embankments over soft soils, steepened slopes, and modular block and/or wrapped face retaining walls. The geotextile is resistant to ultraviolet degradation and to biological and chemical environments normally found in soils. REINFORCER™ 400R conforms to the property values listed below, which have been derived from quality control testing performed by one of Synthetic Industries' GAI-LAP accredited laboratories:

| <u>PROPERTY</u>                           | <u>TEST METHOD</u> | <u>MINIMUM AVERAGE ROLL VALUES¹</u> |                        |
|---|--------------------|-------------------------------------|------------------------|
| <u>Mechanical</u>                         |                    | <u>English</u>                      | <u>Metric</u>          |
| Wide Width Tensile Strength               | ASTM D4595         | 400 x 400 lbs/in                    | 70 x 70 kN/m           |
| Wide Width Elongation                     | ASTM D4595         | x 12 %                              | 14 x 12 %              |
| Puncture Strength                         | ASTM D4833         | 140 lbs                             | 620 N                  |
| Mullen Burst                              | ASTM D3786         | 1200 psi                            | 8270 kPa               |
| Trapezoidal Tear                          | ASTM D4533         | 185 x 190 lbs                       | 820 x 845 N            |
| <u>Hydraulic</u>                          |                    |                                     |                        |
| Apparent Opening Size (AOS)               | ASTM D4751         | 30 US Std. Sieve                    | 0.600 mm               |
| Permittivity, $\psi$                      | ASTM D4491         | 0.60 sec <sup>-1</sup>              | 0.60 sec <sup>-1</sup> |
| Water Flow Rate                           | ASTM D4491         | 45 gpm/ft                           | 1830 l/min/m²          |
| <u>Endurance</u>                          |                    |                                     |                        |
| UV Resistance<br>(% retained @ 500 hours) | ASTM D4355         | 80 %                                | 80 %                   |

Notes:

¹ Values shown are machine (warp) direction x cross-machine (fill) direction. Minimum average roll values are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.

Standard Roll Size: 15.0 ft x 300 ft = 500 yd² (4.50 m x 91.50 m = 418.05 m²)

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400R.12.85

**Synthetic Industries, Inc.**

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