## COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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THE APPLICATION OF B.T.U. PIPELINE, ) INC. FOR COMMISSION APPROVAL TO DEVIATE ) CASE NO. 95-029 FROM 807 KAR 5:022, SECTION 2(4)(A) )

## ORDER

On January 23, 1995, B.T.U. Pipeline, Inc. ("B.T.U.") filed an application with this Commission requesting a deviation from 807 KAR 5:022, Section 2(4)(a), to put into service approximately two miles of off-grade, three-inch pipeline which does not comply with SDR 11 ASTM D2513. This pipeline is located in a rural area at the county line between Magoffin and Johnson counties and is connected to the Ashland Transmission ("Ashland") pipeline. There are two customers connected to this section of the pipeline by two one-inch service lines. The service lines are in compliance with the specifications of SDR 11 ASTM D2513.

On February 22, 1995, Commission Staff visited the site and met with B.T.U.'s operator, Richard Williams. Mr. Williams stated that he installed about nine miles of polyethylene ("p/e") pipeline between November 1993 and July 1994. He said that all the pipes were specified as SDR 11 ASTM D2513 with the exception of the subject two miles which is designated p/e SDR 11 3408 to be used for oil and gas and other service. Mr. Williams said that this section of the pipeline was constructed as a gathering pipeline, and was tested at 100 pounds per square inch ("psi"). It was designed to deliver 300 Mcf per day from 30 local gas wells to the Ashland four-inch steel pipeline. According to B.T.U., it has established a maximum operating pressure ("MAOP") for the pipeline of 70 psi. B.T.U. filed with the Commission the following information about the pipe's material and specifications from the pipe's manufacturer, Oil Creek Plastics Incorporation:

1. Outside diameter of the pipe is 3.492 to 3.508 inches.

- 2. Wall thickness is .318 to .346 inch.
- 3. Burst pressure is 650 psi.
- 4. Hoop stress is 3260 psi.

ASTM D2513 pipes are tested under the American Society for Testing and Material standards. The tests show that the material and grade of the pipe is suitable for use in the distribution of natural gas service. The other testing requirement of ASTM D2513 is a long time strength test (estimated 100,000-hour value) for aging, and deterioration from water, gas, and gas additives. These tests were not performed by the manufacturer of the subject pipeline. The pipe dimensions and tolerance appear to be equivalent to the standard measures.

Having reviewed the evidence of record and being otherwise advised, the Commission finds that:

1. The hoop stress provided by the manufacturer shows that the pipeline can sustain a pressure higher than its designated pressure of 70 psi.

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2. The pipe is not manufactured according to the ASTM D2513 which is specified for use in gas mains in natural gas distribution applications.

3. It is not possible to determine the integrity of the material of the pipeline as it ages and whether the operating pressure can be sustained if the material is subjected to chemicals and other environmental stress.

4. The subject pipeline was tested at 100 psi. The MAOP should not exceed 66 psi, pursuant to 807 KAR 5:022, Section 13(11)(a)2.

5. B.T.U. should be granted a deviation for 18 months from 807 KAR 5:022, Section 2(4)(a) to allow it to construct a pipeline which complies with the Commission's regulations without interrupting gas transportation to the Ashland pipeline and the two customers.

IT IS THEREFORE ORDERED that:

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1. B.T.U.'s application for a deviation from the Commission's regulation, 807 KAR 5:022, Section 2(4)(a), is granted for 18 months. B.T.U. shall replace the two-mile off-grade pipeline by a standard pipeline manufactured for natural gas distribution service no later than December 31, 1996, and notify the Commission no later than January 15, 1997 that the replacement has been made.

2. B.T.U. shall operate the pipeline at a pressure not to exceed 66 psi and to inspect it for leaks annually.

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Done at Frankfort, Kentucky, this 22nd day of June, 1995.

PUBLIC SERVICE COMMISSION

Chairman

Breaskill Comm

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ATTEST:

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Mills

Executive Director