

U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
Special Permit Analysis and Findings

Special Permit Information:

Docket Number: PHMSA-2020-0003
Requested By: Buckeye Partners, LP
Operator ID: 1845
Original Date Requested: December 19, 2019
Original Issuance Date: October 18, 2021
Effective Dates: October 18, 2021 to October 18, 2031
Code Sections: 49 CFR 195.116, 195.118, 195.228, 195.230, and 195.234

Purpose:

The Pipeline and Hazardous Materials Safety Administration (PHMSA)¹ provides information to describe the facts of the subject special permit application submitted by Buckeye Partners, LP (Buckeye), to discuss any relevant public comments received with respect to the application for a special permit, to present the engineering/safety analysis, and to make findings regarding whether the requested special permit should be granted and if so under what conditions. Buckeye requested a special permit to waive compliance from 49 Code of Federal Regulations (CFR) 195.116, 195.118, 195.228, 195.230, and 195.234 for approximately 2,700 feet of aboveground piping, all of which is located entirely within Buckeye’s Tampa North Terminal located in Hillsboro County, Florida.

Pipeline System Affected:

The special permit application is part of a project where Buckeye constructed a 1.3-mile hazardous liquid jurisdictional pipeline to link the Tampa North and Tampa South Terminals in Tampa, Florida. The connection of these two terminals by jurisdictional pipeline makes additional piping in the Terminals jurisdictional. This includes approximately 2,700 feet of terminal piping (*special*

¹ Throughout this special permit the usage of “PHMSA” or “PHMSA OPS” means the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety.

permit segment) that was constructed to standards that differ in certain respects from the above PHMSA design and construction regulations.

This special permit, as granted, applies to the *special permit segment* described below. The *special permit segment* includes approximately 2,600 feet of 12-inch diameter, grade API 5L X-52 (52,000 pounds per square inch gauge (psig) strength), steel pipe with a wall thickness of 0.375 inches, and approximately 100 feet of 8-inch diameter, grade API 5L X-52, steel pipe with a wall thickness of 0.322 inches. The *special permit segment* was constructed between 2018 and 2020 and has had no history of leaks. It is located aboveground and is coated for atmospheric corrosion protection utilizing Buckeye Procedure CS-PL-001 (Carboline multi coat and Sherwin Williams applications). The *special permit segment* is situated within the Tampa North Terminal tank dike, with a 500-foot section of 12-inch diameter piping located outside of dike containment. There are no welded supports, brackets, or braces along the *special permit segment*. **Figure 1** depicts a view of the terminal and the *special permit segment*.

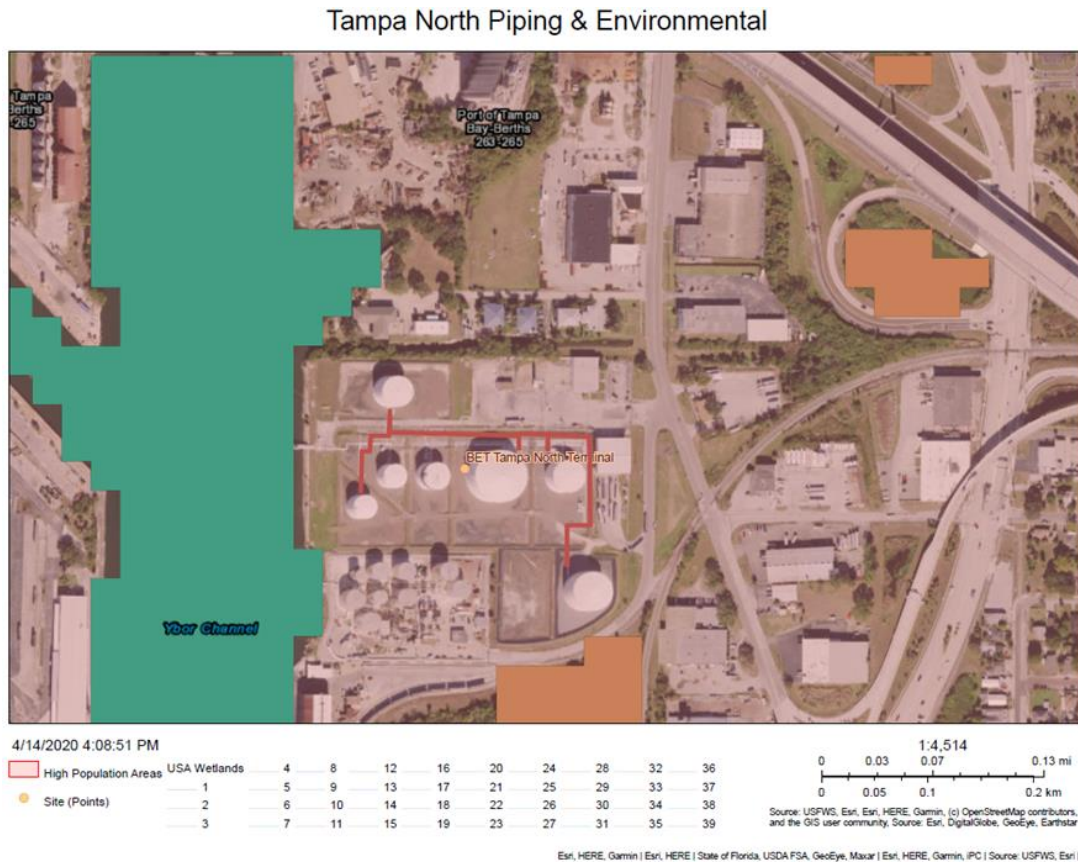


Figure 1 – Buckeye North Tampa Terminal with *special permit segment* in red

The *special permit segment* is constructed with butt-weld fittings and American National Standards Institute (ANSI) 150 flanges with a working pressure of 285 psig. Fittings (elbows and tees) are Wrought Pipe-High Yield (WPHY) grade 52 steel manufactured to ASME B16.9 2013 or Manufacturers Standardization Society of the Valve and Fittings Industry (MSS) SP75 2014 edition standards as appropriate to the steel. The *special permit segment* includes sixteen 12-inch diameter valves and thirteen 8-inch diameter, ANSI 150, 285 psig rated valves. All the valves were manufactured to ASME B16.34, which incorporates the requirements of API 600/598.

The maximum operating pressure (MOP) of the *special permit segment* is 220 psig. The *special permit segment* will be operated at a normal operating pressure of 180 psig, which is less than 20% specified minimum yield strength (SMYS) on the entire *special permit segment*. The piping is designated as could affect a high consequence area (HCA) piping under 49 CFR 195.452. The aboveground *special permit segment* is located entirely within Buckeye’s Tampa North Terminal in Hillsborough County, Florida. The *special permit segment* does not cross any federal, state, county, or city roadways.

Special Permit Request:

On December 19, 2019, Buckeye applied to PHMSA for a special permit seeking relief from 49 CFR 195.116, 195.118, 195.228, 195.230 and 195.234 for 2,600 feet of 12-inch diameter, grade API 5L X-52, steel pipe with a wall thickness of 0.375 inches, and approximately 100 feet of 8-inch diameter, grade API 5L X-52, steel pipe with a wall thickness of 0.322 inches and the associated valves and fittings. The special permit applies to the design, construction, and welding regulations of the above listed 49 CFR Part 195 sections. The special permit will allow Buckeye to operate the piping at the North Tampa Terminal under 49 CFR Part 195 jurisdictional service.

The applicable 49 CFR Part 195 sections for this special permit as well as how the North Tampa Terminal *special permit segment* currently does not meet Part 195 are described below:

Section	Section Title	Review
195.116	Valves	Several valves installed along the <i>special permit segment</i> were not factory tested to ANSI/API Specification 6D as required by the regulations. Specifically, one 12-inch diameter valve and thirteen 8-inch diameter valves installed on the <i>special permit segment</i> were manufactured to API 600/598 requirements. As

		set forth in Appendix 2, ASME B31.3-2016 incorporates API 600/598 requirements for testing which differ from ANSI/API Spec 6D and ASME B31.4-2006 regarding the time durations for pressure testing of valves.
195.118	Fittings	The butt-weld type fittings installed along the <i>special permit segment</i> were manufactured in accordance with the most recent editions of ANSI B16.9 – 2012 (2013) and MSS-SP-75 2014 respectively, not to the ANSI B16.9-2007 edition and MSS-SP-75-2008 edition which are currently incorporated by reference in 195.118.
195.228	Welds and welding inspection: Standards of acceptability	Welds along the <i>special permit segment</i> were inspected in accordance with, and the acceptability determined to, ASME BPVC Section V criteria. This standard is not incorporated by reference in 49 CFR 195.228.
195.230	Welds: Repair or removal of defects	Welds along the <i>special permit segment</i> were originally welded to ASME BPVC Section IX standards and inspected in accordance with ASME BPVC Section V standards. ASME BPVC Section V testing criteria is not recognized in 49 CFR Part 195.
195.234	Welds: Nondestructive testing	Procedures for weld inspection interpretation allowed for hole type image quality indicators (IQI), according to ASME B31.3 requirements. To satisfy the regulations and provide an equivalent level of safety, 100% of welds were re-inspected using radiography and wire type IQIs in accordance with 49 CFR 195.228, 195.230, and 195.234, as well as API 1104 incorporated by reference in the PHMSA regulations.

PHMSA designed a comprehensive set of special permit conditions that Buckeye is required to implement in order to operate the piping at the North Tampa Terminal. An overview of the special permit conditions is in the Operational Integrity Compliance section of this document. The special permit conditions were based upon pipeline safety considerations for the Code sections for which Buckeye was seeking relief.

This special permit applies to the *special permit segment* defined as follows:

- *Special permit segment* – North Tampa Terminal — approximately 2,700 feet.

The *special permit segment* is defined as approximately 2,600 feet of 12-inch diameter, grade API 5L X-52, steel pipe with a wall thickness of 0.375 inches, and approximately 100 feet of 8-inch diameter, grade API 5L X-52, steel pipe with a wall thickness of

0.322 inches and the associated valves and fittings. The *special permit segment* is in Hillsboro County, Florida. The *special permit segment* MOP is 220 psig.

Public Notice:

On May 25, 2021, PHMSA published the special permit request in the Federal Register (86 FR 28184), and the public comment period ended on June 24, 2021. PHMSA received no comments on the Buckeye special permit request.

The Buckeye application letter, Federal Register notice, Final Environmental Assessment, Finding of No Significant Impact, and all other pertinent documents are available for review in Docket No. PHMSA-2020-0003 in the Federal Docket Management System located at www.Regulations.gov.

Operational Integrity Compliance:

PHMSA has reviewed this special permit request to ensure that integrity threats to the pipeline in the *special permit segment* are addressed in the operator's operations and management plan (O&M procedures and specifications). PHMSA carefully designed a comprehensive set of conditions that Buckeye is required to implement to operate the North Tampa Terminal under 49 CFR Part 195 service.

The special permit conditions are summarized by topics in the below list. The full conditions can be reviewed in their entirety in the special permit:

- 1) Buckeye must design, operate, and maintain the pipeline in accordance with the following:
 - a) The pipeline must operate at or below a MOP of 220 psig.
- 2) **Valves** - Buckeye must perform a successful 4-hour hydrostatic pressure test of the entire *special permit segment* as required by 49 CFR Part 195, Subpart E.
- 3) **Fittings** – The recent editions of ANSI B16.9 and MSS-SP-75 require more rigorous testing with regard to the number of prototypes tested and test pressures used to measure the fitness of a butt-weld type fitting than the editions of ANSI B16.9 and MSS-SP-75 currently incorporated by reference into 49 CFR 195.118. Therefore, no additional special permit condition measures are required for Buckeye to meet the safety requirements of 49 CFR 195.118.

- 4) **Welds and welding inspection: Standards of acceptability** - Buckeye must perform 100% welding and weld inspection radiography of the girth welds in the *special permit segment* in accordance with 49 CFR 195.228.
- 5) **Welds: Repair or removal of defects** –
 - a) 100% of girth welds must be radiographically inspected in accordance with 49 CFR 195.228, and
 - b) Girth welds along the 2,700-foot *special permit segment* that did not meet API 1104 acceptability standards must be repaired by a qualified welder in accordance with 49 CFR 195.214 and 195.222.
- 6) **Welds: Nondestructive testing** - Buckeye must perform 100% nondestructive examination on all girth welds in the *special permit segment* using radiography and wire type IQIs in accordance with 49 CFR 195.228, 195.230, 195.234, and API 1104.
- 7) **Enhanced daily monitoring** - Buckeye must perform enhanced monitoring of the *special permit segment* with the following inspections:
 - a) Staff the North Tampa Terminal 24 hours a day, 7 days a week; and
 - b) Perform visual monitoring of the *special permit segment* by walking the property three times a day to ensure timely identification of any potential leaks or integrity conditions and notification to the Buckeye Control Center and local Operations. These patrols will be documented on Buckeye’s Secondary Containment Inspection Form.

Past Enforcement History – January 1, 2011 through June 15, 2021:

During the period January 1, 2011 to June 15, 2021, Buckeye (Operator ID# 1845) has had twenty-nine (29) enforcement cases for violation of 49 CFR Part 192 (Notices of Probable Violation), twelve (12) Notices of Amendments, seven (7) Warning Letters, one (1) Corrective Action Order, and one (1) Safety Order. In total, there have been fifty (50) enforcement cases against Buckeye from January 1, 2011 through June 15, 2021 as shown in **Table 1**.

Table 1: Buckeye Enforcement Matters from January 1, 2011, through June 15, 2021						
Status	Corrective Action Order	Notice of Amendment	Notice of Probable Violation	Safety Order	Warning Letter	Total
CLOSED	0	12	28	1	7	48
OPEN	1	0	1	0	0	2
Total	1	12	29	1	7	50

Table 2 shows the civil penalty enforcement amount proposed and collected by PHMSA on Buckeye enforcement cases from January 1, 2011 to June 15, 2021.

Table 2: Buckeye Enforcement Civil Penalty Status January 1, 2011 through June 15, 2021				
Proposed	Awaiting Order	Assessed	Withdrawn/Reduced	Collected
\$3,643,802	\$0	\$3,180,202	\$463,000	\$3,180,202

Summary of Enforcement Findings for Buckeye includes: annual reports, accident reports, operator qualification, construction standards, welding procedures, emergency response training, maps and records, line markers, inspection of rights-of-way, valve maintenance, overpressure safety devices, firefighting equipment, inspection of breakout tanks, public awareness, control room management, external corrosion control monitoring, atmospheric corrosion, and corrosion control records.

- 49 CFR 195.49, 195.50, 195.52, 195.54, 195.132, 195.202, 195.214, 195.402, 195.403, 195.404, 195.405, 195.410, 195.412, 195.420, 195.428, 195.430, 195.434, 195.434, 195.436, 195.440, 195.446, 195.452, 195.505, 195.569, 195.573, 195.575, 195.581, 195.583, and 195.589.

Table 3 shows PHMSA’s enforcement actions and civil penalties for Buckeye and the specific 49 CFR Part 195 violations:

Table 3: Summary of Enforcement Findings from Buckeye January 1, 2011 to June 15, 2021					
Notice of Amendment					
Operation and/or Maintenance	2	OME Procedural Manual	15		
Operator Qualification	7	Control Room Management	8		
Notice of Amendment Total:					26
Notice of Probable Violation					
Corrosion Control	23	OME Procedural Manual	16	Operation and/or Maintenance	21
Operator Qualification	2	Public Awareness	1	Reporting	4
Integrity Management	2	Design	1		
Control Room Management	1	Construction	2		
Notice of Probable Violation Total:					73
Warning Letter					
Corrosion Control	3	Operation and/or Maintenance	6		
OME Procedure Manual	3	Construction	1		
Warning Letter Total:					13
Grand Total:					112

Findings:

Based on the information submitted by Buckeye and PHMSA’s analysis of the technical, operational, and safety issues, PHMSA finds that granting this special permit to Buckeye to operate approximately 2,600 feet of 12-inch diameter, grade API 5L X-52, steel pipe with a wall thickness of 0.375 inches, and approximately 100 feet of 8-inch diameter, grade API 5L X-52, steel pipe with a wall thickness of 0.322 inches and the associated valves and fittings located at the Buckeye North Tampa Terminal in Hillsboro County, Florida, is consistent with pipeline safety.

PHMSA has designed the special permit conditions to effectively assess and remediate threats to the *special permit segment*. To ensure Buckeye properly implements the special permit conditions, Buckeye will be required to give PHMSA an annual review of their compliance with the special permit.

PHMSA finds that no significant negative impact to human safety and the environment will result from the issuance and full implementation of a special permit that waives the requirements of 49 CFR 195.116, 195.118, 195.228, 195.230, and 195.234. This permit requires Buckeye to implement the special permit conditions that include safety requirements on the operations, maintenance, and integrity management of the *special permit segment*.

Completed in Washington DC on: October 18, 2021

Prepared By: PHMSA – Engineering and Research Division