

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

FEB 2 5 2019

Mr. Jonathan C. Wolfgram Chief Engineer Minnesota Office of Pipeline Safety 445 Minnesota Street, Suite 147 Saint Paul, MN 55101-4145

Dear Mr. Wolfgram:

In a June 13, 2017, email to the Pipeline and Hazardous Materials Safety Administration (PHMSA), you requested an interpretation of 49 Code of Federal Regulations (CFR) Part 195. You specifically requested an interpretation as to the applicability of Part 195 to an intrastate pipeline that leaves a local refinery and travels to the Minneapolis St. Paul Airport.

You described the pipeline system as follows:

Flint Hills Resources, LC (FHR) L.P. operates a 10-inch diameter intrastate pipeline system within Minnesota, the FHR Airport Line, that originates at the Flint Hills Resources (FHR) Pine Bend Refinery (PBR) and terminates within a fenced area in a jet fuel storage tank facility operated by Swissport Fueling Services (Swissport) located within the property boundaries of the Metro Airport Commission (MAC) (Minneapolis St. Paul Airport (MSP)). This 13.38 miles of 10-inch diameter pipeline (FHR 10-inch Pipeline) is owned and operated by FHR, was built in 1988, and operates above 20% specified minimum yield strength (SMYS). The pipeline transports jet fuel produced that are stored in storage tanks at the FHR PBR and then transported to the jet fuel storage tanks at the MSP.

• On December 19, 2017, Koch Pipeline Company, L.P. notified PHMSA of its name change to Flint Hills Resources, LC effective December 1, 2017.

You stated the following:

- The MAC owns the pipeline system that is operated by Swissport. The pipeline crosses at least 3 roads but does not cross any water bodies.
- The regulated FHR Airport pipeline flows directly into four (4) 2.2 million gallon tanks operated by Swissport with a backflow pressure valve near the end of the FHR pipeline that directs product into the tanks in the event of overpressure. This could be interpreted as the Swissport tanks relieving surges in the regulated pipeline (breakout tanks).
- The Swissport tanks have never been regulated by PHMSA/Minnesota Office of Pipeline Safety (MNOPS).

The Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety provides written clarifications of the Regulations (49 CFR Parts 190-199) in the form of interpretation letters. These letters reflect the agency's current application of the regulations to the specific facts presented by the person requesting the clarification. Interpretations do not create legally-enforceable rights or obligations and are provided to help the public understand how to comply with the regulations.

• The Swissport pipeline system, including the four 2.2 million gallon tanks and multiple tank outlet pumps and pipelines that supply the MSP airport hydrant system is not a low-stress pipeline because it is fed by two regulated pipelines - one with maximum operating pressure (MOP) ranging from 1322 pounds per square inch gauge (psig) to 2240 psig with pipe stress at 46.31 to 60.42 percent SMYS and the other with an MOP of 720 psig with pipe stress at 30 percent SMYS.

As you stated, the regulated high-stress operating pressure FHR 10-inch pipeline appears to flow directly into four (4) 2.2 million gallon Swissport tanks with a backflow pressure valve near the end of the FHR 10-inch pipeline that directs product into the tanks in the event of overpressure, and that the Swissport tanks and associated pumps and pipelines have never been regulated by PHMSA/MNOPS.

You asked PHMSA to determine the jurisdiction for each of the following, as identified by number in Attachment A:

Origin - FHR Refinery Property on Attachment A:

1. storage tank outlet piping manifold & valve to storage tank booster pump

- 26. Pressure, temperature or flow meters for Leak Detection
- 2. storage tank booster pump
- 3. storage tank booster pump outlet piping/valve to main line pump suction 1 valve inlet
- 4. mainline pump 1
- 5. filter
- 6. piping from filter to sump tank
- 7. sump tank
- 8. piping from sump tank to sump pump
- 9. sump pump
- 10. sump pump outlet piping to mainline pump 1 suction
- 11. prover loop
- 12. mainline pump 2
- 13. pig launcher isolation valve
- 14. pig launcher

<u>Termination – MAC MSP Airport Property on Attachment A:</u>

- 15. pig receiver
- 16. valve after pig receiver
- 17. filter
- 18. piping from filter to sump tank
- 19. sump tank
- 20. piping from sump tank to sump pump
- 21. sump pump
- 22. sump pump outlet piping to filter inlet
- 23. prover loop
- 24. back pressure valve (controlled by FHR controllers to control pressure in pipeline during flow conditions)

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- 27. Pressure, temperature or flow meters for Leak Detection
- 25. Airport jet fuel storage tanks and pipeline system

"Seven (7) Pipeline Segments" that Operate at unknown or above 20% SMYS on the MAC MSP airport property (operated by Swissport) – as shown on Attachment A:

- 0.57 miles of 8-inch diameter steel pipeline in publicly accessible areas
- 0.01 miles of 8-inch diameter steel pipeline in publicly accessible areas (Magellan receipt station outlet piping to tanks, shown as Segment #8 on Attachment A, "8-inch Magellan Segment #8")
- 0.47 miles of 14-inch diameter steel pipeline in publicly accessible areas
- 0.28 miles of 20-inch diameter steel pipeline in publicly accessible areas
 Note: The above four (4) pipeline segments are noted as the "4-pipeline segments" throughout this letter and total 1.3 miles of pipeline.
- Mini-Manifold and Main-Manifold and the "three (3) outgoing pipeline segments" are as noted below:
 - o 14-inch diameter Segment #10
 - o 20-inch diameter Segment #2
 - o 20-inch diameter Segment #1

PHMSA Reply to MNOPS Questions for the Facilities detailed on Attachment A:

Section 195.2 defines "pipeline or pipeline system" as:

[A]ll parts of a pipeline facility through which a hazardous liquid or carbon dioxide moves in transportation, including, but not limited to, line pipe, valves, and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks.

- Regarding regulatory jurisdiction, under 49 CFR, Part 195, for Items 1-14 and 26 in Attachment A (Origin Point is at the FHR Refinery Property), FHR must have overpressure protection for maximum operating pressure control and surge pressure control at Item 13, see Attachment A. Because the FHR over-pressure control and the leak detection system is upstream of Item 13 and is located at Item 26, the piping and equipment operated by FHR from Item 26 to Item 13 are regulated under 49 CFR Part 195. The FHR 13.38-miles of 10-inch diameter pipeline (FHR 10-inch pipeline) from Item 13 to Item 16 is regulated under 49 CFR Part 195 because in accordance with Part 195.1(a), it transports "hazardous liquids or carbon dioxide associated with those facilities in or affecting interstate or foreign commerce." This regulatory requirement extends to the closest isolation valves upstream of Item 26.
- 2) Regarding the regulatory requirement under 49 CFR Part 195, for Items 15-25 and 27 in Attachment A (Termination Point at MSP Airport Property), Items 15 through 24 and 27 are regulated under 49 CFR Part 195, because the pressure, temperature, and flow measurement for the FHR 10-inch pipeline leak detection system are located at Item 27 and is downstream of Items 15 through 24. Item 25 storage tanks, pump and pipeline system (operates above 20% SMYS) are regulated under 49 CFR Part 195, since the

tanks take product from a regulated pipeline (FHR 10-inch pipeline), the outgoing MSP Airport pipelines operate at unknown SMYS ("4-pipeline segments" that total 1.3 miles), and delivers to other airport storage tanks for direct delivery to airplanes. The non-breakout MSP Airport storage tanks operated by Swissport and other fuel delivery services located entirely within the airport fence line and low pressure delivery system downstream of the "three outgoing pipeline segments" would not be regulated under 49 CFR Part 195.

- 3) The "4-pipeline segments" operated by Swissport that fuel the MSP airport hydrant system, totaling 1.3 miles and operating at unknown or above 20% SMYS, that are accessible to the public and along public roads, that flows from Item 25, would be regulated under 49 CFR Part 195, because they are part of a pipeline system, including the FHR and Swissport-operated pipeline segment that is downstream from the product receipt station for the Magellan pipelines that operate above 20% SMYS.
- 4) Breakout tanks are defined in § 195.1(b) as "tank[s] used to... receive and store hazardous liquid transported by a pipeline for reinjection and continued transportation by pipeline." The four (4) storage tanks (breakout tanks) on the MSP airport property (shown on Attachment A) and the "three (3) outgoing pipeline segments" (operated by Swissport with unknown or above 20% SMYS) leaving the tanks that cross public roads and are located above public light rail tunnels within the MSP airport facility are also regulated under 49 CFR Part 195. The breakout tanks receive product and are attached to two (2) upstream regulated pipelines (the FHR 10-inch and the Magellan 8-inch Segment #8 pipelines are operated by Swissport within the MSP airport fence). Therefore, the four (4) 2.2 million-gallon storage tanks on the MSP airport property that receive product from upstream regulated pipelines and deliver product to regulated downstream pipelines are regulated as breakout tanks under § 195.1(c).

If we can be of further assistance, please contact Tewabe Asebe at 202-366-5523.

Sincerely.

John A. Gale Director, Office of Standards and Rulemaking

cc: Attachment A

ATTACHMENT A

Airport Authority Property

Includes uncontrolled public roads, public parking areas and fenced areas



In a June 13, 2017, email you requested the following:

Good afternoon Tewabe,

We are writing to check in with you regarding the scope of 195 jurisdictional facilities regarding one of our hazardous liquid pipelines. The pipeline is a short intrastate line that leaves a local refinery and travels to the MSP Airport. The system runs from a storage tank through various pumps/valves/prover to a main-line pump. The pipe then travels across a public road where it enters another facility. We are seeking assistance in determining both the start and end of the jurisdictional system. Elizabeth Skalnek in our office has drafted the attached document the scopes the system. We thought we would check with you to see if there might be any resources available as we scope this out before submitting a formal request.

Attachment

Koch Intrastate Airport Pipeline jurisdictional review

Overview:

Koch Pipeline Company (KPL), L.P. (OPID 22855) operates one intrastate pipeline system within Minnesota, the Airport Pipeline System, that originates at the Flint Hills Resources (FHR) Pine Bend Refinery and terminates within a fenced area in a jet fuel storage tank facility operated by Signature Flight Support (SFS) located within the property boundaries of the Metro Airport Commission (Minneapolis St. Paul Airport – MSP.) This 10-inch diameter pipeline, owned by FHR and operated by KPL, was built in 1988, operates above 20% SMYS and transports jet fuel produced at the FHR Pine Bend Refinery from FHR Pine Bend Refinery jet fuel storage tanks to jet fuel storage tanks at MSP.

Background:

During the 2015 field inspection, the inspector from the Minnesota Office of Pipeline Safety (MNOPS) performed an inspection of the above ground facilities located within the fenced area of the FHR Pine Bend Refinery and within the fenced area of the SFS terminal. Koch employees communicated to the inspector their understanding that MNOPS jurisdiction began at the valve(s) before the pig launcher and ended at the valve(s) after the pig receiver, specifically excluding all pumps, sumps, filters, meters, sensors and associated piping and valves at both ends of the pipeline. Jurisdictional diagrams were forwarded to Koch and a jurisdictional review was initiated.

Annual report vs. NPMS:

KPL's 2015 annual report indicates the length of its intrastate pipeline in Minnesota is 12.9 miles. KPL's 2016 National Pipeline Mapping System (NPMS) mileage of 13.4 miles includes FHR's 0.4779 mile segment from the FHR Pine Bend Refinery jet fuel storage tank/booster pump area flowing west to the fenced above ground facilities and mainline pump station located near the northwest fenced FHR Pine Bend LLC industrial property boundaries. KPL is not currently contracted to operate or maintain the 0.4779 mile FHR pipeline segment that it did not consider to be jurisdictional to MNOPS.

Pipeline Previously Considered Non-Jurisdictional - Refinery

The 0.4779 mile FHR pipeline segment on the Pine Bend Refinery property originates at the FHR jet fuel tank(s), passes through tank booster/manifold pump(s) and through a piping manifold, crosses two railroad tracks, proceeds approximately 0.45 miles through FHR Pine Bend LLC property (under/near pallet storage along an internal road) and into a fenced area controlled by Koch Pipeline. The fenced area includes a prover, four filters, two mainline pumps (one before and one after the filters), flow meter(s), leak detection pressure and temperature sensors, a sump line from the filters to the sump tank and a sump return line with a pump to inject into the suction side of the mainline pump before the filters.

Jurisdictional Pipeline

A pig launcher after the filters was previously marked by KPS as the beginning of MNOPS jurisdictional piping. After the pig launcher, the pipeline continues approximately 12.9 miles to the fenced area controlled by KPL at the SFS facility at the airport. The fenced area at the airport contains a pig receiver; KPL considered this the end of MNOPS jurisdiction.

Pipeline Previously Considered Non-Jurisdictional - Airport

After the pig receiver, KPL operates flow meters, pressure and temperature sensors monitored as part of Koch's leak detection system, a meter prover loop, product filters, a sump from the outlet of the filters to a pump that reinjects the sump product to the piping after the pig receiver, a product quality sampling area and a back pressure valve (just before the boundary of the fenced area controlled by Koch). After the back pressure valve, additional piping proceeds underground outside of Koch's fenced area into the storage tank area controlled by SFS for approximately 175 feet before coming above ground into manifold piping and pumps that serve four airport jet fuel storage tanks and fuel delivery pipeline system. Koch cathodically protects all of the buried piping up to the SFS tanks, including the buried piping from outside its fenced area to the four airport jet fuel storage tanks.

The four airport jet fuel tanks are located on property owned by the Metro Airport Commission, accessed by Post Road (public road). The four jet fuel tanks supply pipelines that cross Post Road and feed various airplane fueling systems.

The entire jet fuel pipeline is owned by Flint Hills Resources (FHR). FHR contracts KPL to operate the pipeline from the fenced area at Pine Bend (beginning ~0.47 miles downstream from the jet fuel tank) to the fenced area at the airport. To operate the pipeline, KPL controllers request permission from FHR to initiate a control sequence that aligns valves between the storage tank and mainline pump and starts the jet fuel tank booster pumps to deliver jet fuel to the suction end of the mainline pumps directly controlled by KPL within the fenced area at Pine Bend. Similarly, KPL alerts SFS that it will deliver product into SFS tanks. KPL controllers operate all pumps and valves necessary to deliver jet fuel into the SFS tanks and KPL controllers monitor pressure, temperature and flow as part of its leak detection system.

Please determine the jurisdiction for each of the following pipelines: Origin:

- 1. storage tank outlet piping manifold & valve to storage tank booster pump;
- 2. storage tank booster pump;

- 3. storage tank booster pump outlet piping/valve to main line pump suction 1 valve inlet;
- 4. mainline pump 1
- 5. filter
- 6. piping from filter to sump tank
- 7. sump tank
- 8. piping from sump tank to sump pump
- 9. sump pump
- 10. sump pump outlet piping to mainline pump 1 suction
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Termination:

- 15. pig receiver
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- 22. sump pump outlet piping to filter inlet
- 23. prover loop
- 24. back pressure valve (controlled by KPL controllers to control pressure in pipeline during flow conditions)
- 25. Airport jet fuel storage tanks and pipeline system if the airport pipeline system is >20% SMYS, is it PHMSA jurisdictional?

Leak detection system sensors

- 26. Pressure, temperature or flow meters upstream of otherwise non-jurisdictional equipment
- 27. Pressure, temperature or flow meters downstream of otherwise non-jurisdictional equipment

Please let me know if you have any addition questions or require any additional information.

Thank you very much,

Jon Wolfgram, P.E. Chief Engineer Minnesota Office of Pipeline Safety

