U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

April 18, 2022

Ms. Kaaren Daugherty
Manager, Compliance and Quality Management
Puget Sound Energy
P.O. Box 97034
Bellevue, WA 98009-9734

Dear Ms. Daugherty:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA), dated June 28, 2021, Puget Sound Energy (PSE) requested an interpretation of the applicability of certain sections of 49 Code of Federal Regulation (CFR) part 192 to your pipeline facilities. Specifically, you requested an interpretation as to the applicability of § 192.631 to the Jackson Prairie natural gas storage project (Jackson Prairie) located 10 miles southeast of Chehalis, Washington, which is jointly owned by Puget Sound Energy, Inc., Avista Utilities, and Williams Northwest Pipeline (Joint Owners).

You described Jackson Prairie as follows: (1) feeder lines, consisting of 4 parallel transmission lines, ranging in size from 14-inch to 24-inch diameter and each approximately 1.7 miles long; (2) storage field; (3) processing facility; and (4) a meter station. You also stated that the feeder lines are bi-directional and are used to inject and withdraw from the storage field. You stated that the feeder lines merge into a common header that connects to the meter station piping and Williams Northwest Pipeline as the operator of the meter station.

In addition, you stated that PSE personnel are present 24 hours, 7 days a week at Jackson Prairie, and have sole responsibility for operating the station equipment within the processing facility boundaries and the property limits of the adjacent storage field and the feeder lines. You stated the Jackson Prairie operations center receives information from data points located inside the fence line of the processing facility to ensure equipment, such as gas and fire detectors, are operating safely. You stated the data point on the west header line is located within the fence and measures suction or discharge pressures of gas entering or exiting the compressors. You stated that in the event the pressure goes above or below a predetermined safe operating pressure, the automatic shut-off valve on the west header pipe is programmed to close.

You described the Joint Owners' functions for the gas transmission pipeline operations, farm taps, and Jackson Prairie as: (1) Williams Northwest is responsible for remotely monitoring and controlling the valves and piping at the storage project delivery point meter station (located approximately 1.7 miles to the west of Jackson Prairie storage facility) via a Supervisory Control and Data Acquisition (SCADA) system from a control room. Williams Northwest personnel can

also use the SCADA information to direct Jackson Prairie personnel to take action at the feeder lines or the processing facility; (2) PSE operations center is responsible for remotely monitoring the safety-related operations and the inlet to the Chehalis farm tap via a SCADA system from a PSE control room in Redmond, WA. In addition, the PSE SCADA system collects and displays information about the Chehalis farm tap inlet pressure to dispatch pressure control personnel to take action at the farm tap; and (3) other than the meter station, PSE technicians are onsite and locally monitor and control operation of the processing facility equipment within the fenced boundary. You stated that this relationship is governed by the Jackson Prairie Gas Storage Project Agreement (Project Agreement), on file with the Federal Energy Regulatory Commission (FERC). The storage field and the feeder lines are not connected to a SCADA system and the operations center is limited to the processing facility. All human-machine interface data points are located within the fenced boundary, however you also stated that Jackson Prairie does receive a duplicate screen from the Williams Northwest SCADA system at the meter station for non-operational information purposes only.

On July 12, 2021, you provided the following additional information: (1) schematic for Chehalis farm tap station; and (2) schematic for Jackson Prairie processing facility and storage field. You also stated that the compressors are located within the fence of the Jackson Prairie processing facility and Jackson Prairie uses the compressors for withdrawal of gas that is pushed towards Williams Northwest meter station about 1.7 miles away, and for injection of gas that is pushed towards the storage field. You stated that Williams Northwest has its own compressors used for transportation of gas through their interstate transmission pipelines. You stated that Williams Northwest controls and monitors flow of gas to the Chehalis farm tap and to Jackson Prairie's processing facility. In addition, you stated that Williams Northwest manages the nomination of gas to be stored or withdrawn without the involvement of PSE's employees located at Jackson Prairie. You stated Williams Northwest provides the notification to PSE's Jackson Prairie personnel when gas needs to be withdrawn or injected.

On September 3, 2021, PHMSA again requested additional information and, per your request, on October 22, 2021, PSE and PHMSA staff had a conference call to discuss PHMSA's questions related to the control room responsibilities of the Jackson Prairie facility. The original Safety Program Relationship (SPR) provided to PHMSA did not indicate that the gas transmission pipeline operations control room management plan (CRM) safety program was handled by Williams, but instead indicated that it was addressed by PSE. Additionally, information provided to PHMSA verbally indicated that contract arrangements between Williams Northwest and PSE were not in alignment with that identified in the letter submitted regarding operations and abnormal operating response. And while duplicate screen information was available to PSE at Jackson Prairie, pressure information at Jackson Prairie had not been provided to Williams Northwest. Verbal information communicated to PHMSA indicated that Jackson Prairie, rather than Williams Northwest, made the decision about starting and stopping compressors affecting gas transmission pressures on withdrawal and responding to the abnormal operations.

On January 11, 2022, you responded to PHMSA's questions. You indicated in this response that during the October 22nd meeting, PHMSA and PSE discussed operations and maintenance of the gas transmission pipelines (feeder lines), including emergency response, and confirmed Jackson Prairie is governed by the Project Agreement. Based on the information provided and discussed,

PSE indicated they would make changes in the SPR related to the CRM including the gas transmission operations, provide additional pressure information to Williams Northwest, modify the emergency procedures, and make modifications to the Project Agreement, which would be filed with the FERC.

Your January 11, 2022 response shows that PSE did not provide procedural information that indicated how operations and maintenance, including aspects associated with compression and instrumentation.

The emergency procedure information you provided illustrates that the storage facility at Jackson Prairie is functioning as a 49 CFR Part 192 regulated control room because the procedures indicated that the storage facility would turn off the gas supply source.

PHMSA requested but did not receive the start and stop procedures for Jackson Prairie and for Chehalis locations. Based upon this, PHMSA cannot confirm that start and stop operations would be directed by Williams Northwest as indicated in the January 11, 2022, PSE response. This is an important factor for understanding the applicable Part 192 control room operator.

Based on the information provided, the storage facility at Jackson Prairie was the only location monitoring mainline pressure at the end of the gas transmission pipelines for injection operations, and at the beginning of the pipeline for withdrawal operations. This information is a significant component in determining the presence of an abnormal operation or emergency condition.

There are several operators involved with the gas transmission pipeline operation between Williams Northwest Meter Station, and the Storage facility at Jackson Prairie with no clear documentation submitted that Williams has responsibility for control room function based on the information provided to date and as stated in the request for interpretation.

Should PSE correct all elements that were identified in the email response of September 3, 2021, and the meeting on October 22, 2021, implement activities with associated records providing substantiation of the changes made, and submit those records to PHMSA for review, Williams Northwest could be recognized as the control room of record on a go forward basis.

However, based on the information provided and reviewed by PHMSA, and as configured in SPR, a control room currently exists at the storage facility at Jackson Prairie to monitor and control the gas transmission pipeline operation. As such, § 192.631 requirements are applicable to the storage facility at Jackson Prairie and associated gas transmission assets. In addition, as an operator of a regulated underground natural gas storage facility, you must comply with applicable 49 CFR Parts 191 and 192 requirements (see §§ 191.17 and 192.12).

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

Sincerely,

JOHN A GALE

Digitally signed by JOHN A GALE
Date: 2022.04.19 15:00:56 -04'00'

John A. Gale
Director, Office of Standards
and Rulemaking

PUGET SOUND ENERGY

Puget Sound Energy
P.O. Box 97034
Bellevue, WA 98009-9734
PSE.com

June 28, 2021

By Federal Express

Alan K. Mayberry
Associate Administrator for Pipeline Safety
Office of Pipeline Safety
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: Request for Written Interpretation -- Control Room Management (49 C.F.R. § 192.631)

Dear Mr. Mayberry:

Puget Sound Energy, Inc. (PSE) is the operator of three elements of the Jackson Prairie Natural Gas Storage Project (Jackson Prairie) and certain other natural gas facilities in the state of Washington under operator identification number, OPID 22189. PSE seeks a written interpretation from the Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) regarding the applicability of the Control Room Management Rule (49 CFR. § 192.631 (CRM Rule)) to its operation of Jackson Prairie.

I. Background and Description of Jackson Prairie

Jackson Prairie is located approximately 10 miles southeast of Chehalis, Washington and is jointly owned by PSE, Avista Utilities (Avista), and Williams Northwest Pipeline (Northwest), collectively, the Joint Owners. Jackson Prairie consists of four primary elements:

A. Storage Field, including individual Storage Reservoirs, wells, and associated field lines. Isolation valves for the field lines that connect the Storage Field to the Processing Facility are located within the fence lines of Processing Facility.

B. Processing Facility, including all the necessary compressor, dehydration, and filtration units; local piping, an operations building, and a maintenance shop.

These facilities are situated in an approximately 5 acre area surrounded by a fence.

C. Feeder Lines, consisting of four (4) parallel transmission lines, ranging in size from 14" to 24" diameter and approximately 1.7 miles each. The Feeder Lines connect the Processing Facility to the Meter Station at the Storage Project delivery point.

D. Meter Station, situated at the Storage Project Delivery Point, serves as the point of interconnection of the Feeder Lines and Northwest's Natural Gas Transmission system. Through bi-directional metering, the Meter Station measures and controls the quantity of natural gas injected into and withdrawn from Jackson Prairie. Per the Joint Owner agreement, Northwest serves as the operator of the Meter Station.

Inside the fence line of the Processing Facility, there is a normally open, manually operated isolation valve on each of the Feeder Lines. The Feeder Lines merge into a common (west) header inside the fence, before entering the Processing Facility. The west header piping has a locally operated valve that is used to control the flow of gas into and out of the Processing Facility. This valve remains closed when the Processing Facility is not injecting or withdrawing gas.

Inside the fence line of the Meter Station, there is a normally open, manually operated isolation valve on each of the four Feeder Lines. The Feeder Lines merge into a common header that connects to the Meter Station piping. There are multiple valves used for operation, including 20" and 24" tap valves from Northwest's mainline.

One other nuance to Jackson Prairie is the existence of the Chehalis Farm Tap off the 14" transmission line. Contractually, this farm tap is defined as a "transportation delivery point from Northwest to PSE located within the Storage Project". This Farm Tap serves five (5) customers and is operated and maintained by PSE pressure control personnel that are not part of the Jackson Prairie staff.

Please refer to the schematic in Figure 1.

II. Jackson Prairie Monitoring and Control

PSE personnel are present 24 hours, 7 days a week at Jackson Prairie. These employees exclusively operate the station equipment within the Processing Facility boundaries and the property limits of the adjacent Storage Field and the Feeder Lines. Per CRM FAQ A.20, they do not remotely monitor and control the Feeder Lines outside of the fence line. The Jackson Prairie Operations Center receives information from data points located inside the fence line of the Processing Facility to ensure equipment, such as gas and fire detectors, are operating safely. The data point on the west header line is located within the fence and measures suction or discharge pressures of gas entering or exiting the compressors. In the event the pressure goes above or below a predetermined safe operating pressure, the automatic shut-off valve on the west header pipe is programmed to close. Jackson Prairie also receives a duplicate screen shot from Northwest's SCADA system at the Meter Station for non-operational information purposes only.

Northwest Controllers remotely monitor the Meter Station through various data points connected to their SCADA system at a CRM Rule compliant Control Room located in Houston, Texas. The Northwest Controllers can remotely control the 20" and 24" tap valves and are able to issue injection, withdrawal and shut in commands which activates logic based configuration of various other valves in the Meter Station. In the event the SCADA data indicates a safety related condition requiring a shut in command, the Northwest Controllers would also notify Jackson Prairie personnel to take action at the Processing Facility as needed. By default, the monitoring and control of the data points at the Meter Station by the Northwest Controllers provides defacto remote monitoring and control for the Feeder Lines. If an abnormal condition or emergency resulting in release of gas or overpressure was to occur on any of the Feeder Lines, the resulting pressure change would register at the data points at the Meter Station and the Northwest Controller would take appropriate action, including contacting Jackson Prairie personnel. If injection or withdrawal activities were in process at the time, the automatic shut-off valve within the fence line of the Processing Facility would activate to isolate the Processing Facility. Additionally, in the case of a pipeline rupture on any of the Feeder Lines, Jackson Prairie personnel would get auditory or visual evidence of this due to the short length of these lines and the local proximity to the Processing Facility.

Any issue with the 14" transmission line that feeds the Chehalis Farm Tap, would be picked up by the inlet RTU that is monitored and controlled by Controllers in PSE's Control Room located in Redmond, Washington.

In the table below, we have outlined the Jackson Prairie configuration compared to the CRM Rule's definitions of Control Room, Controller, and SCADA system for easy reference.

Defined Term -- 49 C.F.R. § 192.3 (emphasis added).	**Jackson Prairie Configuration**
Control Room: an operations center staffed by personnel charged with the responsibility for remotely monitoring and controlling a pipeline facility.	The operations center at Jackson Prairie is staffed by "boots on the grounds" technicians with the responsibility to locally monitor and control operation within the fenced boundary of the Processing Facility and the property limits of the adjacent Storage Field and the Feeder Lines. The Northwest operations center in Houston, Texas, is staffed by personnel charged with the responsibility for remotely monitoring and controlling the Meter Station piping at the Jackson Prairie Storage Project Delivery Point. The PSE operations center in Redmond, Washington is staffed by personnel charged with the responsibility for remotely monitoring the inlet to the Chehalis Farm Tap.

Controller: a qualified individual who remotely monitors and controls the safety-related operations of a pipeline facility via a SCADA system from a control room, and who has operational authority and accountability for the remote operational functions of the pipeline facility	Jackson Prairie technicians are onsite and locally monitor and control operation of the Processing Facility equipment within the fenced boundary. JP personnel have operational authority and accountability exclusively for the Jackson Prairie Storage Project, except for the Meter Station. The Storage Field and the Feeder Lines are not connected to a SCADA system. Northwest staffs its Houston, Texas Control Room with qualified individuals that remotely monitor and control the safety-related operations of the Meter Station via a SCADA system from a Control Room. Northwest personnel have operational authority and accountability for the remote operational functions of the valves at the Meter Station. PSE staffs its Redmond, Washington Control Room with qualified individuals that remotely monitor and control the safety-related operations of the Chehalis Farm Tap via a SCADA system from a Control Room. PSE personnel in Redmond have operational authority and accountability for the remote operational functions of the Farm Tap.
Supervisory Control and Data Acquisition (SCADA) system: a computer-based system or systems used by a controller in a control room that collects and displays information about a pipeline facility and may have the ability to send commands back to the pipeline facility	Operations Center at Jackson Prairie is limited to the Processing Facility and all HMI data points are located within the fenced boundary. The Operations Center at Jackson Prairie is not a SCADA system used by a Controller in a Control Room as those terms are defined in the CRM Rule. The Northwest SCADA system is used by a Controller in a Control Room that collects and displays information about the Meter Station; this information is used to remotely control valves at the Meter Station. Northwest personnel can also use this information to direct Jackson Prairie personnel to take action at the Feeder Lines or the Processing Facility. The PSE SCADA system is used by a Controller in a Control Room that collects and displays information about the Chehalis Farm Tap inlet pressure; this information is used to dispatch PSE pressure control personnel to take action at the Farm Tap.

III. Conclusion

PSE believes that the operations center at Jackson Prairie does not fall within the scope of the CRM Rule. Jackson Prairie field technicians are onsite and locally monitor and control the operation of the Processing Facility equipment within the fenced boundary. They have operational authority and accountability exclusively for the Processing Facility within the fenced boundary, the Storage Field within the property limits, and the Feeder Lines. Northwest has sole control over the safety related operations of the Meter Station. While nothing in the CRM Rule requires pipeline operators to implement or use a SCADA system to remotely operate facilities, the remote monitoring and control of the Meter Station by Northwest effectively covers the Feeder Lines connecting the Meter Station to the Processing Facility at Jackson Prairie.

PSE appreciates the Administrator's time in providing a written interpretation of the CRM Rule applicability to the unique operational setup of Jackson Prairie. Should you have any questions, please contact Vidushi Raina, Gas Pipeline Safety Compliance Program Manager, at 425-424-7839 or vidushi.raina@pse.com.

Sincerely,

DocuSigned by:
Kaaren Daugherty
633E6337356E4EA...

Kaaren Daugherty
Manager, Compliance and Quality Management
Kaaren.daugherty@pse.com

Cc:
Troy Hutson, Puget Sound Energy
Mark Carlson, Puget Sound Energy
Pat Haworth, Puget Sound Energy
Rob Harmon, Williams Northwest Pipeline
Jody Morehouse, Avista
Sean Mayo, WUTC Director Pipeline Safety
John Gale, PHMSA Director Standards & Rulemaking