EXHIBIT NO. \_\_\_(JMH-5) DOCKET NO. UE-09\_\_/UG-09\_\_\_ 2009 PSE GENERAL RATE CASE WITNESS: JOEY M. HENDERSON

## BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

Docket No. UE-09\_\_\_\_ Docket No. UG-09\_\_\_\_

PUGET SOUND ENERGY, INC.,

**Respondent.** 

## FOURTH EXHIBIT (NONCONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF JOEY M. HENDERSON ON BEHALF OF PUGET SOUND ENERGY, INC.

MAY 8, 2009



# STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000 711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

December 17, 2008

Joey Henderson CT Compliance Program Manager Puget Sound Energy, Inc. P. O. Box 90868 Bellevue, WA 98009-0868

RE: PSE Purchase of Mint Farm Energy Company Power Plant and Applicability of Chapter 173-407, WAC

Dear Mr. Henderson:

Thank you for your letter of November 21, 2008 summarizing our telephone conversation regarding applicability of the requirements of Part II of WAC 173-407 to the proposed purchase of the Mint Farm Energy Company (Mint Farm) combined cycle combustion turbine power plant in Longview, WA.

#### **Overview**

As described in your letter and over the telephone, Puget Sound Energy (PSE) has entered a contract to purchase the Mint Farm facility and anticipate completion of the sale in December, 2008. Immediately following the purchase, PSE intends to have the plant in an extended maintenance outage of about 2 months duration. During the outage, PSE will perform maintenance on all equipment, make minor changes to some equipment, and replace the emissions monitoring and related systems at the plant.

The Mint Farm power plant was designed, intended and permitted to operate as a baseload power plant. The purchase of this power plant by PSE triggers the requirements of Washington Administrative Code (WAC) 173-407, Part II, which requires demonstration of compliance with the greenhouse gas emission performance standard.

The Mint Farm power plant first started operation in January of 2008. The current owners have operated the facility as a merchant power plant. However it is PSE's intent to operate the plant as a baseload power plant similar to its operation of the Goldendale Generating Station.

Ecology has evaluated the emissions calculations presented for both the Mint Farm power plant as it has been operated during its first year of operation and what the emissions

Exhibit No. \_\_(JMH-5) Page 1 of 3 Mr. J Henderson December 17, 2008 Page 2

would have been if it were operated like the Goldendale Generating Station. In RCW 80.80, the legislature

anticipated that a baseload, natural gas fired combined cycle power plant would be able to comply with the greenhouse gas emission performance standard of 1,100 lb/MWh. This assumption is supported by the information based on the operating rates of the Goldendale facility. Even though the Mint Farm facility has operated as a merchant plant with many equipment startup and shutdown cycles, the analysis presented indicates that the facility meets the greenhouse gas emission performance standard under its 2008 operating scenario.

### Compliance with WAC 173-407-130

As a result of these analyses, Ecology believes that the Mint Farm power plant does and will continue to meet the greenhouse gas emission performance standard in WAC 173-407-130.

### Other requirements of Chapter 173-407 that apply

WAC 173-407-230 requires this plant to begin monitoring emissions and annually demonstrating continued compliance with the greenhouse gas emission performance standard. During the first year of operation, or in this case the first year after the change in ownership, the plant owner/operator is to establish and begin emission monitoring, and recordkeeping to support annual reporting of compliance.

In the situation where the power plant is subject to emission monitoring and reporting requirements of the federal Acid Rain Program, the existing process for determining  $CO_2$  emissions may be continued. However, WAC 173-407-230 does require that the owner/operator must begin a monitoring program to develop a plant specific emission factor for nitrous oxide and methane.

As a result of the planned maintenance outage, there will be limited operation during the first calendar quarter after the purchase is completed. Ecology recognizes this and will consider the first year of operation after the change in ownership of this plant to begin when the plant restarts operation after the outage. We encourage PSE to work with SWCAA and Ecology on quickly developing an acceptable emissions monitoring protocol to determine the nitrous oxide and methane emissions from the power plant so that the first quarterly testing can occur as soon as possible after the return to operation.

#### To summarize:

- Based on our analysis of the information presented to Ecology by PSE in its November 21, 2008 documents and spreadsheets, we have determined that this facility will comply with the greenhouse gas emissions performance standard in WAC 173-407-130
  - The first year of operation in the case of an ownership change is the first 12 months after the ownership change occurs.

Mr. J Henderson December 17, 2008 Page 3

• In this case where immediately after the ownership change occurs, the power plant will be in an extended outage for maintenance, modifications to the operating controls, replacement of the emission monitoring system, etc, the first year may begin when the power plant restarts after the outage.

If you have any questions or concerns about this determination, please contact Alan Newman (tel. 360-407-6810, e-mail <u>anew461@ecy.wa.gov</u>) of my staff.

Sincerely,

Sarah Rees Air Quality Program Program Development Section Manager

AN:lb

cc:

Lorna Luebbe, PSE Dave Danner, WUTC Secretary and Executive Director Wess Safford, SWCAA Bill Steiner, URS-Portland