

**EXHIBIT NO. RG-55  
DOCKET NOS. UE-090704/UG-090705  
2009 PSE GENERAL RATE CASE  
WITNESS: ROGER GARRATT**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY, INC.,**

**Respondent.**

**Docket No. UE-090704  
Docket No. UG-090705**

**SECOND EXHIBIT (NONCONFIDENTIAL) TO THE  
PREFILED REBUTTAL TESTIMONY OF  
ROGER GARRATT  
ON BEHALF OF PUGET SOUND ENERGY, INC.**

**DECEMBER 17, 2009**

INSPECTION OF COMPLETE WORKS  
COWLITZ COUNTY CONSOLIDATED DIKING IMPROVEMENT DISTRICT NO. 1  
PROJECT NO. 5-02  
1 August 2007

1. DATE OF INSPECTION: 1 August 2007
2. REFERENCE: LEVEE ENCROACHMENT STANDARDS AND PROCEDURES,  
PDR 1130-2-5, 17 March 1980
3. INSPECTION PARTICIPANTS:  
  
Sherry Bean, Supervisor, (360) 423-2683  
Ray Caldwell, Supervisor, (360) 557-0015  
Judy Strayer, District Manager, (360) 423-2493  
Bob Carpenter, Engineer/Surveyor, (360) 423-2493  
Dan Finn, Operations Foreman, (360) 423-2493  
Art Fong, Inspector, CENWP-EC-DC, (503) 808-4862
4. FINDINGS: The following inspection findings were noted:
  - a. The diking district has established stationing for the levee called flood fight stations. The stationing starts at the main pumping facilities and proceeds counterclockwise. The stationing on Corps of Engineers, Portland District (COE) maps starts approximately 2,600 feet west of the main pumping facilities and goes both clockwise (2,600 feet to the main pumping facilities) and counterclockwise. To convert from COE stationing to diking district stationing one adds 2,600 feet (26+00) to COE stationing for points counterclockwise from the COE starting point and subtract COE stationing from 2,600 feet for points clockwise from the COE starting point. The diking district map showing the new stationing has been included in the inspection file. The diking district has placed station markers on the levee every 1,000 feet based on this stationing. The stations cited in this report are based on the established diking district stationing.
  - b. All items previously stored on the riverward levee slope at station 54+00 (Flood Fight Station 80+00) was observed to have been removed from the levee slopes and from the property. The new owners have cleaned off the property.
  - c. The property owner near the downstream end of the portion of the levee that fronts Columbia River (stations 135+00 to 200+00) operates motorcycle racecourses. There was no observed damage or ruts on the levee during the inspection.
  - d. The levee and pumping plants appear to be in good condition. All pump stations have operated during the past year. One pump at the Reynolds pump station had been removed for repair and has been reinstalled. Housekeeping at the

COWLITZ COUNTY CONSOLIDATED DIKING IMPROVEMENT DISTRICT NO. 1  
PROJECT NO. 5-02 (Continued)

pumping plants is excellent. Upgrading of controls for remote monitoring and operation by a SCADA system for the pump plants has been completed.

e. The District's planned improvements for the levee crest height is underway. This would provide a more uniform levee height along the Cowlitz River portion of the levee where some areas are lower relative to 7.4 feet higher than the 100-year flood elevation.

f. To avoid impacts to the levee from vegetation, trees, and ground cover, annual maintenance should be performed by the diking district to keep levee vegetation in compliance with the following paragraphs. The diking district will need to be able to define the levee section at any location. Use the design levee top width, the design riverward slope, and design landward slope to delineate the levee section. Then it will be possible to establish where existing trees (and root balls) are in relationship to the levee section.

i. Maintenance standards for trees shall comply with both the Levee Encroachment Standards and Procedures (PDR 1130-2-5, 1980), the Interim Vegetation Guidance for Control of Vegetation on Levees (CECW-HS, Jun 2007), and Guidelines for Landscape Planting and Vegetation Management at Floodwalls, levees, and Embankment Dams (EM 1110-2-301, Jan 2000). Any tree with trunk exceeding 2-inches in diameter found in the levee section and within 15 feet of the levee toe or to the existing project easement needs to be removed to be in compliance with levee encroachment and maintenance standards (except those in an overbuild section). For trees with trunks or stumps up to 4-inches in diameter, the tree may be cut flush with the ground surface and then treat the stump to retard stump and root ball decay. For trees with stumps greater than 4-inches in diameter - the tree root ball shall be removed and the voids shall then be backfilled with compacted with impervious fill. The tree-free area of either 15 feet from the toe or to where the existing project easement is located (or as designed); will then define which trees may remain and which need to be removed. The diking district can determine which trees can remain in place if they are located in an overbuild section or above the root free zone or outside the tree free zone (EM 1110-2-301).

COWLITZ COUNTY CONSOLIDATED DIKING IMPROVEMENT DISTRICT NO. 1  
PROJECT NO. 5-02 (Continued)

ii. Where the Ordinary High Water mark is above the levee toe, trees that are up to 2-inches in diameter, which can retard erosion, are allowed to remain out to either: 15 feet from the toe or to the existing project easement. Once a tree exceeds 2-inches in diameter, maintenance action is required as stated in the preceding paragraph, either by removal or cutting of the tree.

iii. Vegetation control is required to be able to visually inspect the levee, particularly the levee slopes and also the toe area. Ground cover (grass) should not to exceed 12-inches in height. Dense brush, berry vines, or trees that prevent visual inspection of the levee should be removed.

5. RESOLUTION OF PERMITS: Following is the disposition of Encroachment Permits reviewed this past year and previous uncompleted permitted work:

a. Waste Control, Inc. (Permit No. 01-07) - Construction of a solid waste transfer station at Station 380+00 (Flood Fight Station 714+00) approved by the Corps on September 7, 2001. A change has been made to the original proposal that incorporates a recreation trail on the riverside of the levee, and placement of a layer of washed rock for drainage. The Corps approved this change on August 20, 2003. This work was completed in 2006.

b. Terra Firma (Permit No. 03-09) - Installation of concrete traffic barriers along the toe of the landward slope at Station 92+00 (Flood Fight Station 242+80). This work has been completed.

c. Brian Magnuson (Permit No. 05-02) - Construction of an office building and dock on the levee overbuild at Station 433+90 (Flood Fight Station 767+90). Preliminary plans have been reviewed and the work does not appear to impact the integrity of the flood control system. Final approval is subject to Corps' review of the final construction drawings.

d. Waterline crossing (Permit 6-15) at Station 419+70 has been completed.

e. Permit 06-18, Power Pole in the Columbia River levee, near Station 79+50 (Flood Fight Station 409+58) has been completed.

f. Permit 6-09 for a new dock access on the Columbia River by Chinook Ventures has not been started.

COWLITZ COUNTY CONSOLIDATED DIKING IMPROVEMENT DISTRICT NO. 1  
PROJECT NO. 5-02 (Continued)

g. Both requests for permit for 07-04 and ~~07-05~~ were denied.

↳ correction per  
Art Fong, USACE

h. Permit 07-12 for Building Encroachment on the Columbia River levee, near Station 196+20 (Flood Fight Station 106+30) has not been started.

i. Permit 07-18 from Charles Bond to construct an apartment building on the levee overbuild section at Station 405+75 (Flood Fight Station 727+25) has not yet started (follow-up from Permit 07-04).

6. REQUIRED MAINTENANCE TO ENSURE LEVEE INTEGRITY: No maintenance items were found that should be corrected prior to the next inspection.

7. GENERAL RECOMMENDED MAINTENANCE:

Continue vegetation control measures and implement the new vegetation guidance requirements.

8. CONCLUSION AND RATING: The inspection found the maintenance of the flood control works to be "Acceptable".

Arthur C. Fong, P.E.  
Civil Engineer