

## Woodard, Marina (UTC)

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**From:** Imad, Antoinette M -Toni <antoinette.imad@pse.com>  
**Sent:** Friday, September 28, 2012 3:50 PM  
**To:** Lykken, David (UTC)  
**Cc:** Woodard, Marina (UTC); McGrath, Cheryl; Subsits, Joe (UTC); Gas Compliance -- mail --; Cullom, David (UTC)  
**Subject:** Update- PSE Response | 2012 Natural Gas Standard Inspection - Puget Sound Energy- Snohomish County  
**Attachments:** Results of evaluation- Map Revision Process Heath Surveys.pdf; Plan - leak survey process.pdf; Quality Review- PSE Procedure Heath Survey Map Revision Assessment 2.pdf  
**Categories:** Red Category

Dear Mr. Lykken,

In its response to the 2012 Snohomish County Inspection letter, PSE expressed its intent to:

- (1) Conduct an evaluation of its map revision process and communicate to Staff the results of this evaluation
- (2) Develop a plan describing the Company's approach to address improvements to the leak survey process
- (3) Review the quality of a process improvement implemented to ensure that field notes are converted into maps.

Please find attached for your information three files containing:

- (1) The results of PSE's evaluation in the form of an enhanced process and flow chart
- (2) A leak survey process plan document
- (3) A document outlining the quality of the review process

Please do not hesitate to contact me if any questions,

Best Regards,

Toni Imad

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SEP 28 2012  
State of Washington  
UTC  
Pipeline Safety Program

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**From:** Imad, Antoinette M -Toni  
**Sent:** Friday, July 20, 2012 3:25 PM  
**To:** 'Lykken, David (UTC)'  
**Cc:** 'Woodard, Marina (UTC)'; McGrath, Cheryl; 'jsubsits@utc.wa.gov'; Gas Compliance -- mail --  
**Subject:** PSE Response | 2012 Natural Gas Standard Inspection - Puget Sound Energy- Snohomish County

Dear Mr. Lykken,

Pursuant to your request, PSE is hereby submitting a response to address findings noted in the 2012 Snohomish County inspection report dated June 18 , 2012.

Best Regards,

Toni Imad

The agreement was to start this process on 9-17-2012

## **Map Revision Process - Heath Surveys**

### **Heath**

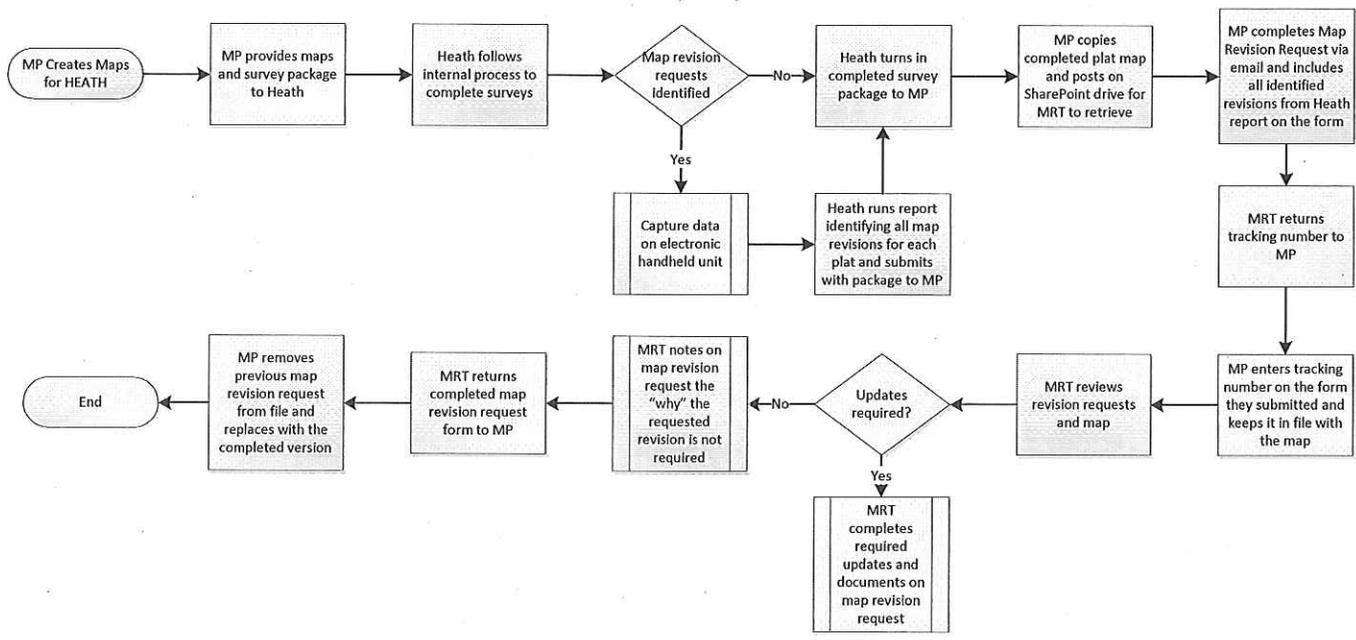
- *Will send changes made to each OP and/or Plat map with an Excel Spreadsheet identifying changes to Maintenance Programs.*

### **Maintenance Programs**

- *Will create a Gas Map Revision Request Form (3666) identifying the changes obtained from the Excel Spreadsheet provided by Heath and send to Maps, Records, & Technology (MRT).*
- *Created image files of the marked-up copy of Plat Maps and provide to MRT with the Form 3666. Note -Placement of the Image is yet to be determined (SharePoint?)*
- *Set up a tracking system (SharePoint?) with tracking number provided by MRT.*

### **Maps, Records, & Technology**

- *Provide tracking number to Maintenance Programs once Gas Map Revision Request Form (3666) has been received.*
- *Provide to Maintenance Programs an acknowledgment that that change are agreed to, or if the change is a not agreed to, an explanation for records.*
- *Submit to Maintenance Programs and provide a completed Form 3666 when the maps have been updated*



## Approach for PSE's Leak Survey Process Improvement Efforts

### 1. Scope

This document defines the approach that is being used by PSE to improve the Leak Survey Process. The leak survey process includes identifying leaks, mains, and services to be surveyed each year, issuing that work to the service provider to be surveyed, and capturing and storing the information found while performing the survey.

### 2. Approach

A cross functional team of stakeholders with representatives from various departments has been brought together to improve the leak survey process with the intention to have plan approval by 3/31/2013. The rest of 2012 will be spent validating the current process, understanding the capabilities of the new technology PSE has already acquired, researching vendors and what technology solutions they could help us achieve. Once the research phase has been completed, the team will brain storm and develop the new effective process. They will prioritize which process steps to focus on based on value to the process and ease of implementation. These priorities will be used to create the list of short term (less than 1 year), mid range (1-3 years), and the long term actions required to meet the vision/future process. A standard process improvement methodology will be used to implement the plan.

The new process will:

- Identify the critical elements required for a leak survey
- Identify critical pieces of information that are required to be stored
- Minimize handoffs, movement, and other areas where process is likely to break down
- Identify areas for controls, quality checks, and metrics to ensure the surveys are completed
- Identify areas for controls quality checks and metrics to ensure the process is working effectively

**Table 1  
Process Improvement Plan**

| Step                                     | Description  |
|--|--|
| Assessment of current state              | PSE has documented processes that have evolved over time. The first step will be to review those processes ensure that process changes have been incorporated. |
| Identify/Update process weakness         | Review process and ensure all process deficiencies/handoffs/ and places for human error are identified and the relative risk assigned                          |
| Identify other process interdependencies | PSE will identify other processes that impact or are dependent on the Leak Survey process.   |
| Gather information from                  | PSE will submit a leak survey RFP reviewing what   |

## Approach for PSE's Leak Survey Process Improvement Efforts

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|--|---|
| outside vendors                            | technologies they can bring to PSE that will enhance and improve the current way we manage the Leak Survey Process  |
| Gather best practices from other utilities | PSE will research and leverage best practices from peer utilities.  |
| Review technologies in PSE                 | PSE has recently implemented new tools and technologies (including a new Geographic Information Systems (GIS)). We will look at the process steps and the capabilities in house and identify items that can be implemented. |
| Develop effective process                  | PSE will develop the future state for the Leak Survey Process. This process will be based on critical elements needed to perform and manage the leak surveys, not limited to incrementally improving the current process.   |
| Develop Plan                               | After the initial information gathering, PSE will develop an implementation plan. This plan will address the 1 year, 1-3 years, and the 5 year vision and identify the required high level steps to achieve that vision.    |
| Plan approval                              | The plan will be approved by leadership by March 31, 2013.  |

## Procedure: Heath Leak Survey Map Revisions

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### 1. Scope

This procedure addresses an assessment of Map Revision resulting from Heath leak surveys. The intent is to evaluate the effectiveness of this process.

### 2. Required Documents

- 2.1 Process Document: Map Revision Process - Heath Surveys
- 2.2 Copies of field-completed leak survey Records by Heath Consultants (see 3.1) with Stamp that contains checklist of required information to be completed by Heath prior to the submittal of survey results to PSE.
- 2.3 Gas Map Revision Request Form (3666)
- 2.4 Excel Spread Sheet Provided by Heath that describes changes made to each OP and/or Plat map.

### 3. Description of Work Being Assessed

- 3.1 The process is governed by **WAC 480-93-018 Records** which states: *(5) Each gas pipeline company must update its records within six months of when it completes any construction activity and make such records available to appropriate company operations personnel.*
  - 3.1.1 This requirement is reflected in Gas Operating Standard 2500.0500 (Map and Records Requirements) section 3.6 states: *Records shall be updated within six months of completion of any construction activity. 3.6.1 Completion of construction occurs when the foreman signs off on the as-built drawing. This is recorded on the as-built drawing in a specified box, as well as in SAP in the FCP (Field Completed Paperwork) field.*
- 3.2 Gas Operating Standard 2500.0500 (Map and Records Requirements) section 3.9 states; *If it is believed that there are inaccuracies with gas plat or operation maps, a Natural Gas Map Revision Request Form (Form 3666) should be submitted to the Maps, Records and Technology Department for research and updates.*
- 3.3 The Process Document: Map Revision Process - Heath Surveys requires that:
  - 3.3.1 Heath will send changes made to each OP and/or Plat map with an Excel Spreadsheet identifying changes to Maintenance Programs.
  - 3.3.2 Maintenance Programs will create a Gas Map Revision Request Form (3666) identifying the changes obtained from the Excel Spreadsheet provided and the by Heath and send to Maps, Records, & Technology (MRT).
  - 3.3.3 Maps, Records & Technology (MRT) will:
    - 3.3.3.1 Provide tracking number to Maintenance Programs once Gas Map Revision Request Form (3666) has been received.
    - 3.3.3.2 Provide to Maintenance Programs acknowledgment that that change are agreed to, or if the change is a not agreed to, an explanation for records.
    - 3.3.3.3 Submit to Maintenance Programs and provide a completed Form 3666 when the maps have been updated.
    - 3.3.3.4 The goal is to complete revisions within 14 days of receipt by MRT

# Procedure: Heath Leak Survey Map Revisions

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## 4. Procedure for Establishing Population

- 4.1 Records for this assessment are defined as the leak survey records for leak surveys performed by Heath Consultants. The record is identified by a unique line item in the Leak Survey Database that describes the Operation Map/Date and the specific survey to be performed.
- 4.2 Population will be records process after 9-17-2012 (process start date) and before 1-31-2013. Since the Records are required to be updated within six (6) months, the assessment shall occur after 7-1-2013.
- 4.3 The sample size shall be in accordance with section 4 of this document.

## 5. Sample Size for Leak Survey Self Audit

- 5.1 The table below shows sample sizes for various population sizes. Population is established in section 4 above. These sample sizes are based on a confidence level of 95%, a confidence interval of 5%, and an error rate of 5%.

### 5.1.1

|     | Population | Sample Size |
|-----|------------|-------------|
|     | 10         | 9           |
|     | 25         | 19          |
|     | 50         | 30          |
| 5.2 | 100        | 43          |
|     | 250        | 57          |
|     | 500        | 64          |
|     | 1,000      | 69          |
|     | 2,500      | 71          |
|     | 5,000      | 72          |
|     | 10,000     | 73          |
|     | Unknown    | 73          |

## 6. Procedure

- 6.1 Review the sample of survey records to verify that the stamp that contains checklist of required information to be completed by Heath (see 2.2) is present.
- 6.2 Review the sample of survey records to verify that the stamp that contains checklist of required information to be completed by Heath accurately reflects the changes requested via the marked-up maps, and the Excel Spreadsheet identifying changes provided by Heath (see 2.4).
- 6.3 From the surveys where Map Revisions are necessary, review the sample of survey records to verify that the Gas Map Revision Request Form 3666 (see 2.3) generated by Maintenance Programs reflects the changes requested via the marked-up maps.
- 6.4 From the surveys where Map Revisions are necessary, verify that the Gas Map Revision Request Form (3666) generated by Maintenance Programs has been assigned a tracking number by MRT and provided to Maintenance Programs.

## Procedure: Heath Leak Survey Map Revisions

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- 6.5 From the surveys where Map Revisions are necessary, review the effected maps for the requested changes per the Gas Map Revision Request Form (3666) generated by Maintenance Programs.
  - 6.5.1 Verify that the changes were incorporated within six (6) months of the requests date. Note: The goal is to complete revisions within 14 days of receipt by MRT.
  - 6.5.2 Verify that MRT provided to Maintenance Programs acknowledgment that that change are agreed to, or if the change is a not agreed to, an explanation for records.
- 6.6 Review the sample of survey records for any obvious indication that they were not completed appropriately. Per GOS 2625.1100, Every survey record shall include the following:
  - 6.6.1 Description of the system and area surveyed (This could include maps and leak survey logs)
  - 6.6.2 Survey results
  - 6.6.3 Survey method
  - 6.6.4 Name of persons conducting the survey
  - 6.6.5 Survey dates
  - 6.6.6 Serial number of instrument or other tracking identification number.

**End of Assessment**