



Oregon

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Stuart Dearden

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55 Corporate Drive
Mail Code 55A-300A
Bridgewater, NJ 08807

Re: Draft Outfall 22B IRAM Performance Monitoring Sampling and Analysis Plan
RP-Portland Site
ECSI #155

Dear Mr. Dearden:

The Department of Environmental Quality (DEQ) received the November 14, 2014 letter titled *Re: Response to Comments and Revised Draft Outfall 22B Sampling and Analysis Plan*, prepared by Golder Associates for StarLink Logistics Inc. (StarLink). The letter provides direct responses to DEQ's and EPA's comments on the originally submitted Draft Outfall 22B Sampling and Analysis Plan (SAP) as well as the subsequent updated SAP.

DEQ appreciates StarLink's response and the revised SAP, but has determined that StarLink's response does not fully address DEQ's requested modifications. Therefore, consistent with Section 7.K(4), DEQ has modified the SAP. DEQ requests that StarLink provide an editable electronic version of the text portion of the SAP within 7 days in order to incorporate these modifications into a final document. DEQ will revise and complete the SAP under DEQ letterhead and highlight DEQ changes for clarity.

DEQ is making six modifications to the SAP as presented below, all of which were previously requested. Select comments from DEQ's October 9, 2014 review are followed by StarLink's response and DEQ's modification.

DEQ Specific Comment 1: Attachment G Draft Sampling and Analysis Plan. Please change the title of the SAP to "Draft Outfall 22B IRAM Performance Monitoring Sampling and Analysis Plan".

StarLink's November 14, 2014 Response: The title of the updated SAP is changed.

DEQ Response: StarLink's response does not fully address DEQ's comments.

DEQ SAP Modification 1: [Report Title] Draft Outfall 22B ~~E-IRAM~~ IRAM Performance Monitoring, Sampling and Analysis Plan.

DEQ Specific Comment 2: Attachment G Draft Sampling and Analysis Plan - 1.0

Objective. The objective of the performance monitoring plan is to demonstrate that the 22B pathway is adequately addressed and does not pose a risk to the river, not that non-stormwater

flow in the system has been reduced. Please revise to accurately describe the objective in the revised SAP.

StarLink's November 14, 2014 Response: *As stated in the previously approved work plan (AMEC, 2009a): "The sole objective of the Outfall 22B Expanded IRAM WP is to minimize or eliminate discharge of RP-related constituents at Outfall 22B." This statement was accurately provided in the Draft Sampling and Analysis Plan (Attachment G, p 1). However, StarLink understands that DEQ has requested expansion of the objective from that required in the 2009 work plan.*

The draft SAP objective is expanded to monitor and assess if the multi-source non-stormwater outfall from Outfall 22B poses a risk to the river.

DEQ Response: StarLink's response does not fully address DEQ's comment.

Prior to receiving the revised SAP, DEQ met with Joan Underwood on October 31, 2014 to discuss several SAP comments. In our meeting DEQ articulated our expectation that the objective of the SAP must address the overall performance of the Outfall 22B IRAM in order to demonstrate that that the Outfall 22B storm sewer pathway is adequately controlled and does not pose a risk to the river. DEQ emphasized that the IRAM was constructed to control the entire pathway, both dry-weather flow within the pipe and preferential flow of groundwater along the outside of the pipe.

The purpose of this IRAM, and all such source control actions within the Portland Harbor study area are to address risks posed to the Willamette River, and prevent recontamination of river sediments. This goal is articulated in the Portland Harbor Memorandum of Understanding between EPA, DEQ and partners, as well as the EPA/DEQ Joint Source Control Strategy.

As you know, DEQ approved StarLink's request to implement the IRAM prior to completing a Source Control Evaluation or Source Control Alternatives Evaluation because the IRAM was expected to be completed within a 12 month time frame to mitigate a high priority pathway for the Rhone Poulenc site. As the IRAM was delayed, StarLink submitted the source control evaluation (SCE) to DEQ on November 2010, 2013. Our comments to the SCE were presented to StarLink in our October 9, 2013 letter, which are also reflected in Specific Comment 2 of DEQ's October, 9, 2014 letter as follows:

"Objective (Page 2). *DEQ concluded in our October 9, 2013 review of the Rhone-Poulenc source control evaluation that the Basin 22B groundwater infiltration pathway is a complete pathway for Rhone-Poulenc related contaminants, and noted this was being addressed by StarLink through implementation of the Outfall 22B E-IRAM¹. Exceedances of source control screening level values were observed in dry-weather flow for SVOCs (2,4,5-trichlorophenol, 2,4-dichlorophenol, 2-methylphenol, pentachlorophenol and naphthalene), insecticides (aldrin, alpha-chlordane, dieldrin, gamma-chlorodane, heptachlor epoxide, hexachlorobenzene, DDD, DDE and DDT), dioxin/furans (2,3,7,8-TCDD) and inorganics (aluminum, boron, molybdenum, thallium,*

¹ (2013 DEQ) Re: DEQ Review of Rhone Poulenc Source Control Evaluation and Next Step for Source Control, RP-Portland Site, ECSI 155, Oregon Department of Environmental Quality. October 9, 2013.

arsenic, barium, iron, lead and manganese). Two source areas of Rhone-Poulenc related contaminants are potential sources of the organic contaminants. They include soil contamination in the Rhone-Poulenc Insecticide Area and former Doane Lake sediments which result in shallow groundwater contaminant plumes upgradient of the City Outfall 22B system. The IRAM objective needs to reference DEQ's conclusions regarding the need for source control to address this pathway."

We again emphasize that the objective of source control performance monitoring for this pathway is broader than the objective presented in the E-IRAM work plan.

DEQ SAP Modification 2: 1.0 Objective, page 1.

Text to be deleted:

~~"The objective of the original work plan for the E-IRAM was to minimize or eliminate discharge of RP-related constituents at Outfall 22B. An additional objective is to monitor and assess if the multi-source dry weather discharge from Outfall 22B poses a risk to the river. This SAP provides for observations and sampling of dry weather flow at Outfall 22B, observation and measurement of dry weather flow in manholes along the NW front Avenue and collection of groundwater level measurements in selected monitoring wells within the Outfall 22B basin."~~

Text to be inserted:

The Outfall 22B IRAM and Outfall 22B Expanded IRAM were implemented to address exceedances of JSCS SLVs for numerous Rhone Poulenc contaminants of interest in dry weather flow discharging from within the outfall piping and from water discharging outside the outfall piping. The objective of the performance monitoring is to demonstrate that the Outfall 22B stormwater system pathway is adequately addressed and does not pose an unacceptable risk to the river. Protectiveness will be assessed as follows:

1. Determine if dry weather flow is present
2. Determine if contaminants exceed JSCS SLVs
3. Evaluation if exceedances pose an unacceptable risk to the river
4. Determine if additional actions are needed

DEQ Specific Comment 8, Bullet 3: Attachment G Draft Sampling and Analysis Plan – 3.0 Scheduling and Reporting: If any site-specific SLVs are exceeded in the Outfall 22B dry-weather flow sample, sampling will be required in the seven City of Portland manholes, and at the Metro facility's Manhole-9 in the subsequent monitoring event. StarLink must confirm access agreements are in place for this monitoring within 90 days of each monitoring event or request a waiver from DEQ.

StarLink's November 14, 2014 Response: *Sampling at the indicated manholes is specified in the revised draft SAP. Sampling will be conducted following receipt, validation and evaluation of outfall sample results when the following conditions are observed or met:*

- *dry-weather sampling conditions are met (72-hour period of no detectable precipitation) and*

- *sufficient flow is present at manholes MH-10, MH-9, MH-8, MH-7, MH-6, MH-4, and MH3 as well as Manhole 9 on Metro property, in order to obtain representative samples for the target analytical suites (where SLVs are exceeded)...*

DEQ Response: StarLink's response does not fully address DEQ's comment.

DEQ SAP Modification 3: 3.2 Data Evaluation and Additional Sampling, page 4

...If one or more organic constituents are detected at a concentration above their respective SLV and it is identified as posing an unacceptable risk to human health and the environment, and the source of the constituents(s) cannot be identified through the evaluation described above, additional sampling, including but not limited to sampling at individual manholes MH-10, MH-9, MH-8, MH-7, MH-6, MH-5, MH-4, MH-3 and Manhole 9 on Metro property, may be will be required. Additional sampling may be proposed by StarLink. Sampling will be conducted at individual manholes if the following conditions are met:

- *dry-weather sampling conditions are met (72-hour period of no detectable precipitation) and*
- *sufficient flow is present at manholes MH-10, MH-9, MH-8, MH-7, MH-6, MH-5, MH-4, and MH-3 as well as Manhole 9 on Metro property, in order to obtain representative samples for the ~~target~~ analytical suites (where SLVs are exceeded).*

Performance of the IRAM will be based on the full suite of analytes as presented in Attachment A Table 1 of the SAP. StarLink may request a reduction in the suite of analytes based on the results of the first two years of monitoring.

DEQ Specific Comment 8, Bullet 4: Attachment G Draft Sampling and Analysis Plan – 3.0

Scheduling and Reporting: StarLink must ensure the outfall is accessible and clear of debris prior to sampling a free flow discharge for each event. In July 2014, DEQ observed debris partially blocking the outfall discharge, resulting in containment of water behind the outfall.

StarLink's November 14, 2014 Response: Sampling will be conducted when the outfall is clear of debris and sufficient free-flowing discharge can be sampled during each event. This requirement is included in the updated SAP. If equipment is necessary to clear the debris, StarLink will work with the City and DEQ to determine how to clear the debris and timing.

DEQ Response: StarLink's response does not fully address DEQ's comment.

DEQ SAP Modification 4: 2.3 Sample Collection, page 2.

One water quality sample and one field replicate will be collected of Outfall 22B discharge during each monitoring event, if discharge is present. The sample will be collected following methodology described in Surface Water Sampling SOP-10 (Attachment B) and submitted for laboratory analysis of the constituent and analyses listed in Table 1 (Attachment C).

Sampling will only be conducted when the outfall is clear of debris, ~~sufficient free-flowing discharge can be sampled during the sample event and turbidity at the time of sampling is less than 10 NTU (to prevent collection of dislodged sediment within the conveyance system).~~

Sampling will be conducted when the outfall is clear of debris and sufficient free-flowing discharge can be sampled during each event. If equipment is necessary to clear the debris,

StarLink will work with the City and DEQ to determine how to clear the debris and timing. Outfall clearance will be confirmed by StarLink one month prior to planned sampling.

DEQ Specific Comment 8, Bullet 5: Attachment G Draft Sampling and Analysis Plan – 3.0 Scheduling and Reporting: Video logging of the entire Outfall 22B Storm Sewer System must be conducted every 5 years until the ROD issued for the site. DEQ anticipates that the ROD will include long term monitoring requirements for the entire 22B system.

StarLink's November 14, 2014 Response: Video logging will be completed every five years after the guarantee period until the ROD is issued. The draft SAP is revised to reflect this.

DEQ Response: Video logging will be required every five years after DEQ's finalization of the *Outfall 22B E-IRAM Performance Monitoring Sampling and Analysis Plan*. See modifications below.

DEQ SAP Modification 5: 2.0 Scope and Methodology, page 1.

Video logging will be completed every five years after the expiration of the installation contractor's guarantee period for the E-IRAM the first monitoring event until the Record of Decision (ROD) is issued for the site.

DEQ Specific Comment 10, Bullet 2, Sub-bullet 10: Attachment G Draft Sampling and Analysis Plan – 3.0 Scheduling and Reporting: Conclusions/Recommendations regarding the adequacy of the IRAM in eliminating the Basin 22B groundwater infiltration pathway, and if additional work/repair is needed (sic) to address this pathway.

StarLink's November 14, 2014 Response: Reports will address the suggested content, will follow the outline and format detailed in Section 3.3 of the revised draft SAP and will be stamped by a licensed professional.

DEQ Response: StarLink's response does not fully address DEQ's comment.

DEQ Modification 6: 3.3 Reporting, page 5.

A performance monitoring report will be prepared within 30 days of the monitoring event (if no samples were collected) or within 30 days from receipt of laboratory data if samples were collected and analyzed. The report will be stamped by a licensed professional and will include the following information:

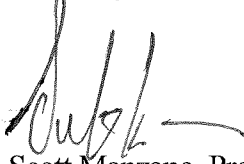
- *Introduction/Background*
- *Summary of monitoring event actions including precipitation information to document conditions prior to monitoring event*
- *Summary of field observations*
- *Deviation from the SAP*
- *Summary tables of validated analytical results with comparison to site-specific SLVs other data sets as described in Section 3.2*
- *Field notes (provided in an attachment)*

- *Analytical data validation report (provided in an attachment)*
- *Comparison of observed groundwater levels to invert elevations (Table 16, AMCE, 2008) with the inclusion of Metro stormwater system invert elevations near monitoring wells W-15-S(15) and ASW-05.*
- *An evaluation and conclusion on whether the dry weather discharge poses a risk to the river and a recommendation on whether manhole sampling is proposed if a constituent is above site-specific SLV. Conclusions/Recommendations regarding the adequacy of the IRAM in eliminating the Basin 22B groundwater infiltration pathway, and if additional work/repair is needed at the time of the report*

At the completion of the two-year period of quarterly monitoring events a report will be prepared including an evaluation of data trends, conclusions, and recommendations regarding the performance of the ~~E-IRAM~~ IRAM.

DEQ appreciates the effort made by StarLink to submit the *Revised Draft Outfall 22B Sampling and Analysis Plan*. Please feel free to contact me at 503 229-6748 if you have any questions.

Sincerely,



Scott Manzano, Project Manager
DEQ NWR Cleanup Program

C: *Joan Underwood, Quantum Management Group*
Jim Benedict, Cable, Huston, Benedict, Haagensen & Lloyd
Keith Johnson, DEQ
Rich Muza, EPA
Gary Vrooman, DOJ Natural Resources
ECSI #155