

August 14, 2019

Andrew Smith, Site Manager
Department of Ecology
PO Box 47775
Olympia, Washington 98504-7775

**Subject: Proposed Alignment of Feasibility Study Schedule to Agreed Order
NuStar Vancouver Annex Facility
5420 NW Fruit Valley Road
Vancouver, Washington
0060-001-005**

Dear Mr. Smith:

This Feasibility Study Schedule Alignment letter has been prepared on behalf of NuStar Terminals Operations Partnership L.P. (NuStar) and includes an updated schedule for completion of a Feasibility Study per Agreed Order No. 08-TC-S DE5250 (the Order) at the NuStar Vancouver Annex terminal (the Site).

Under the Order, NuStar is required to submit a Feasibility Study (FS) to the Washington Department of Ecology (Ecology), documenting a final cleanup remedy for the Site. On July 12, 2012, NuStar submitted a Draft FS to Ecology, and on October 16, 2013, NuStar received substantive comments from Ecology on the Draft FS. Under the stipulations of the Order, NuStar filed a formal dispute associated with Ecology's review of the Draft FS. Ecology reviewed the dispute, and on August 26, 2014, issued a Final Project Coordinator's Decision (the Decision; see Attachment A) establishing, in part, a series of steps for collecting additional data to support resubmittal of the FS. Since that time, six soil and/or groundwater investigations have been conducted, nine monitoring wells have been installed, a chemical oxidation/oxygen releasing compound injection pilot study was conducted, and a quarterly groundwater monitoring program has been initiated.

On July 11, 2019, a representative from Cascadia Associates, Inc. (Cascadia) met with Ecology to discuss the results from the most recent soil/groundwater investigation that was conducted in February 2019 and the next steps for preparing an updated FS for the Site. Per meeting discussions, the (single) deliverable will be a combined Supplemental Remedial Investigation(RI)/FS report and will be comprised of an updated RI (the original RI was approved by Ecology on June 23, 2011) with investigation and groundwater data collected between 2014 and 2019, as well as a Revised FS for the Site.

As discussed in the July 11, 2019 meeting with Ecology, the preparation of the FS will likely require additional push-probe investigation in the west tank farm area to better inform the costs and implementability associated with potential removal and/or chemical injection technologies. In

addition, we anticipate that aquifer testing will also be required during the FS preparation process to evaluate possible containment technologies.

Based on the need to collect additional soil and groundwater data, conduct aquifer testing, and evaluate and incorporate the results into the applicable technology evaluations, we are proposing approximately 8 months to collect the additional information and prepare the Supplemental RI/FS. We recommend a Supplemental RI/FS submittal date of **March 31, 2019**. This submitted schedule for the (combined) Supplemental RI/FS will realign the overall project schedule with that outlined in the Order and the following timeline will supplement the timeline in Exhibit D of the Order.

Revised Project Schedule*

Action/Deliverable	Start, Completion, or Submittal Date	Calendar Date
Submit Draft Supplemental RI/FS Report	(per rationale described in this letter)	March 31, 2019.
Submit Final Supplemental RI/FS Reports	Within two months of receiving Ecology’s comments on the respective draft Supplemental RI/FS Reports	TBD
Submit Groundwater Monitoring Reports	Within 45 days of the end of the monitoring period defined in the Ecology-approved Groundwater Monitoring Plan ¹	TBD

*Project Schedule Modified from Exhibit D of Agreed Order No. 08-TC-S DE5250. Actions/Deliverables listed prior to the submittal of the Draft FS are not included. A complete copy of Exhibit D is provided in Attachment B.

TBD = to be determined.

¹ A proposed Groundwater Monitoring Plan will be submitted to Ecology with the Supplemental RI/FS report.

If you have any questions or would like to discuss this further, please contact me at (503) 906-6577 (ext. 110).

Sincerely,



Stephanie Bosze Salisbury, L.G.
Senior Associate Geologist

Attachments:

- A 2014 Ecology Project Coordinator’s Decision
- B Exhibit D of Agreed Order No. 08-TC-S DE5250

- cc:** Renee Robinson, NuStar Energy, L.P. (electronic deliverable)
Aaron Flett, NuStar Energy, L.P. (electronic deliverable)
Zack Chaffin, NuStar Energy, L.P. (electronic deliverable)
Chris Chan, NuStar Energy, L.P. (electronic deliverable)

ATTACHMENT A
Ecology Project Coordinator's Decision



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

MS: 70 ▪ 2108 Grand Boulevard ▪ Vancouver, Washington 98661-4624 ▪ (360) 690-7171

August 26, 2014

Mr. Joe Aldridge
NuStar Energy L.P.
P.O. Box 781609
San Antonio, TX 78278

RE: Ecology Project Coordinator's Decision
NuStar Energy L.P. Formal Dispute/Objection
Cleanup Site: ST Services NuStar Energy LP (Site) -- Vancouver, Washington

Dear Mr. Aldridge:

This letter presents the final Project Coordinator's Decision (Decision) regarding the formal dispute you submitted to Ecology via email on October 29, 2013. It includes the changes which you indicated NuStar will accept (your August 25, 2014 email to Ecology), and it supersedes the initial July 29, 2014 version.

Please submit a written statement referencing this letter and indicating that NuStar accepts the Decision and agrees to its provisions. Upon Ecology's receipt of the statement, the Decision and its provisions will become effective. Ecology agrees to satisfy the Decision provisions relevant to this agency.

Background

The Potentially Liable Person (PLP) for the subject site is NuStar Terminals Operations Partnership L.P., a subsidiary of NuStar Energy L.P. (NuStar). The applicable agreed order for the Site is Agreed Order No. 08-TC-S DE5250 (Agreed Order), which became effective November 6, 2008.

On October 29, 2013, Joe Aldridge, the Agreed-Order designated "Project Coordinator" for NuStar, exercised NuStar's rights under provision VIII-J of the Agreed Order by submitting a formal notice of dispute and objection via email to Rod Schmall, the site Project Coordinator for the Washington State Department of Ecology (Ecology). The email message indicated that NuStar disagreed with several statements and requirements outlined by Mr. Schmall in Ecology's October 16, 2013 letter commenting on NuStar's July 12, 2012 draft *Feasibility Study* (FS) report. Mr. Aldridge also objected to the amount of Ecology's cost-recovery charges invoiced to NuStar for review of the report.

A NuStar letter dated October 25, 2013 signed by Ms. Renee Robinson was attached to Mr. Aldridge's email transmission. The letter cited multiple statements in the Ecology comment letter that NuStar contended were misleading, not applicable to an FS report, or inaccurate. It also indicated that Ecology's requirement for an additional groundwater sampling-and-analysis event to characterize more recent conditions was not necessary.

Dispute Resolution Activity

NuStar and Ecology agreed to seek resolution of the dispute via informal discussions. These occurred during both in-person meetings and telephone conferences. In two of the six meetings NuStar was represented by employees of Apex Companies, LLC (Apex), NuStar's environmental consultant for the subject cleanup site. Email communication with exchanges of meeting notes, etc. occurred during and following the period over which the meetings occurred.

A brief outline of the meetings follows. Dispute/objection issues that were resolved during individual meetings are not included in this section but are outlined as a group in the Decision narrative.

- December 17, 2013: An initial telephone meeting between NuStar and Ecology originated from Ecology's headquarters office in Lacey, Washington. NuStar and Apex participated via telephone. Ecology participants were Rod Schmall, Andrew Smith (Schmall's current supervisor), and Scott Rose (Schmall's supervisor during issuance of Ecology's FS report comment letter). All are with the agency's Toxics Cleanup Program section in its Southwest Regional Office. Joe Aldridge and Renee Robinson represented NuStar, and Amanda Spencer, Stephanie Bosze-Salisbury, and Ashleigh Fines represented Apex.
- January 8, 2014: Rod Schmall met with Amanda Spencer and Stephanie Bosze-Salisbury at Apex's Portland, Oregon office. This meeting was held to discuss technical issues.
- January 16, 2014: Rod Schmall met with Stephanie Bosze-Salisbury at Apex's Portland office. The discussion was a continuation of technical assessments and approaches espoused by each party in the dispute.
- February 4, 2014: A telephone conference with NuStar (Aldridge and Robinson), Apex (Spencer and Ashleigh Fines), and Ecology representatives (Smith and Schmall) originated from Apex's Portland office where the Ecology participants were present. The issues presenting the greatest amount disagreement between Ecology and NuStar/Apex were thoroughly discussed, but not resolved.
- February 20, 2014: An in-person meeting with all of the parties' representatives identified above except Mr. Scott and Ms. Bosze-Salisbury was held at Ecology's Vancouver, WA Field Office. Ecology re-stated the agency's dispute resolution process, NuStar outlined the Ecology cost-recovery costs they had incurred, and all participants discussed Ecology-NuStar meetings and communication since the Agreed Order had been finalized. NuStar expressed uneasiness with Ecology commitments based on "path-forward changes" made by the agency and asked for assurance of adherence with agreements. Discussions resulted in substantial movement in positions by both parties and near resolution.
- April 6, 2014: A final in-person meeting with all of the parties' representatives identified previously except Mr. Scott and Ms. Bosze-Salisbury was held at Ecology's Vancouver, WA Field Office. Verbal agreement was reached for resolution of the final issues and Apex was asked to provide a schedule for agreed-upon site work. Ecology subsequently received the schedule.

Costs related to Dispute Resolution

No Ecology staff time associated directly with resolving NuStar's dispute/objection have been or will be charged to NuStar. Future cost-recovery charges related to Ecology's oversight of additional site work for supporting a revised feasibility study report are addressed in the following Project Coordinator's Decision (Decision).

Ecology Project Coordinator's Decision

Based on verbal agreements reached during the series of meetings outlined above and on associated correspondence between NuStar/Apex and Ecology during the cooperative resolution-seeking period, Ecology has made the following decision:

Ecology shall:

1. Issue a revised comment letter for the July 12, 2012 draft *Feasibility Study* report in which it will rephrase the language that stated "some uncertainty remains regarding its [methyl tertiary butyl ether—MTBE] nature and extent relative to this site" making it clear that the validity of the NuStar-determined extent of MTBE in groundwater is reasonable and is considered by Ecology to be similar in accuracy to the majority of other cleanup site investigations; i.e., some uncertainty always remains, even if extraordinary efforts are afforded to an investigation.
2. Provide a written notice to NuStar stating that because of the additional site work being required by Ecology, NuStar will not be considered noncompliant with the project schedule in the Agreed Order.
3. Cancel all cost-recovery charges to NuStar for the third and fourth quarters of 2013. No invoice will be issued for this canceled period, for which the charges totaled \$9,569.61.

NuStar shall:

1. Comply with the non-disputed comments/requirements of Ecology's initial October 16, 2013 comment letter on the draft *Feasibility Study* report.
2. In the revised FS report that will be written after additional site work is complete, include a discussion supporting the contention held by both NuStar and Ecology that the existence of a detached MTBE groundwater plume is unlikely.
3. In the revised FS report, expand discussions of vadose-zone contamination and options for addressing that contamination that support the "leave in place" recommendation by NuStar. This may include that there would be greater risks associated with contaminant removal due to logistical and financial impacts, and that evidence of leaching to groundwater is low based on the characteristics of the contamination and the environment in which it exists. The vadose zone contamination near previous sampling locations SB-8 and SB-9 may be similarly addressed if results of groundwater samples collected at these locations do not indicate evidence of impact to the groundwater.
4. Collect, and submit for analysis, groundwater grab samples from new borings at locations SB-8 and SB-9 within sixty days of NuStar acceptance of the Decision. The analysis shall be for total petroleum hydrocarbons as gasoline (TPHg) by Method NWTPH-Gx and TPH as diesel (TPHd) using Method NWTPH-Dx with silica gel cleanup. Prior to sampling, Apex/NuStar shall hold discussions with Ecology to determine the exact location and depth of the intended sampling points for collecting groundwater samples. No formal Work Plan is required.

5. Provide and discuss with Ecology the analytical results of groundwater samples collected from locations SB-8 and SB-9 within forty-five days after receiving certified analytical results. If either of the groundwater samples contain TPHg or TPHd above the MTCA Method A cleanup levels (CUL), then Nustar, install groundwater monitoring wells and collect representative groundwater samples from those locations within forty-five days of the above discussion with Ecology. The groundwater samples shall be analyzed for the constituents detected in the original grab samples. A letter report shall be submitted to Ecology within forty-five days after receiving certified analytical results.
6. Based on the results of the groundwater samples collected from the new monitoring wells (if such wells are required by Ecology), additional compliance wells may be necessary to determine the extent of the contaminated groundwater plume. The locations of these compliance wells shall be discussed with and approved by Ecology. Groundwater samples collected from these wells will be analyzed for the same constituents as indicated above.
7. Collect four quarterly samples from each of the four existing on-site groundwater monitoring wells. Analyze groundwater from these wells for TPH as gasoline (TPHg) by Method NWTPH-Gx, TPHd and TPHho (heavy oil) by Method NWTPH-Dx with silica gel cleanup, and BTEX, MTBE, and fuel oxygenates by EPA Method 8260B. The initial sampling of these four wells may be conducted during the same sampling event as the SB-8 & -9-location sampling, but shall not begin later than the forty-five days after Ecology determines whether a monitoring well(s) is/are needed at the SB-8 and/or SB-9 locations
8. Within fifteen days of Apex receipt of certified analytical data for each quarterly sample event(s), NuStar/Apex shall notify Ecology of the results for all the wells discussed in this Decision.
9. Within ninety days of Apex's receipt of certified analytical results for the fourth sampling event, NuStar shall submit a revised FS report to Ecology.

Cost Recovery by Ecology:

During the period that NuStar performs the additional site work required by Ecology, Ecology will not charge NuStar or the Site PLP (a subsidiary of NuStar) for staff time for any task that would be duplicative of time spent doing the same task during the review of the initial draft FS report. Only new, *additional* tasks (e.g. reading the letters or email reports regarding new sample analysis results, conferring with Apex and/or NuStar on new well locations, evaluating FS cost analysis of an additional remediation alternative, etc.). General guidance for cost-recovery charges is outlined by the attached table.

Respectfully submitted,



Rod Schmall, Ecology Project Coordinator

Attachment

cc: Renee Robinson / NuStar
Rebecca Lawson, Andrew Smith, Scott Rose / Ecology
Ivy Anderson / Washington State Office of the Attorney General

Certified Mail / Return Receipt (#7011 0470 0002 9304 6747)

Attachment

Activities Related to Replacement Feasibility Report

	Type of Activity	Chargeable to NuStar?
1	Review of submitted replacement FS report (including agency-internal discussions)	No
2	Oral and written communication (e.g., agency-internal, with Assistant Attorney General, and with NuStar) related to review and approval of replacement FS report	No
3	Agency consultations during collection of additional data	Yes
4	Review of acquired additional data	Yes
5	Discussions (in-person and phone) related to new data	Yes
6	Discussions (in-person and phone) related to new cost analyses not performed in originally submitted FS report	Yes
7	Ecology site visits to observe additional data gathering	Yes
8	Written communication time related to additional data gathering and agency review of data	Yes
9	Agency-internal communication and discussions (input from experts, etc.) on matters related additional data acquisition, review and evaluation.	Yes
10	Other activities	No/Yes (after discussions with NuStar)

ATTACHMENT B

Exhibit D from Agreed Order

EXHIBIT D

Project Schedule

Refer to Section VII (Work to be Performed)

Action/Deliverable	Start, Completion, or Submittal Date
Submit Remedial Investigation Work Plan	Within two months of effective date of AO
Submit Draft RI report	Within 12 months of Ecology’s approval of the Remedial Action Work Plan
Submit IA Design and Work Plan <i>(If, based on the draft RI Investigation report or indicative findings during the investigation, Ecology determines an Interim Action is necessary)</i>	Within three months of an Ecology notification to NuStar requiring an Interim Action.
Implement Interim Action <i>(If, based on the draft RI Investigation report or indicative findings during the investigation, Ecology determines an Interim Action is necessary)</i>	Within four months of Ecology’s approval of the Interim Action Work Plan (if an Interim Action Work Plan was required)
Submit Draft Risk Assessment report	Within 12 months of effective date of AO
Submit Draft IA Summary report*	Within 12 months of IA implementation
Submit Draft Feasibility Study report	Within 12 months of Ecology’s approval of the Final Remedial Investigation Report
Submit Final RI/IA*/RA/FS reports <i>(Incorporating any revisions indicated by Ecology’s comments on the respective drafts, unless the Parties agree otherwise or the recommendations are changed through the dispute resolution process)</i>	Within two months of receiving Ecology’s comments on the respective <i>draft</i> RI/IA/RA/FS reports
Submit Groundwater Monitoring Reports	Within 45 days of the end of the monitoring Period defined in the Ecology-approved Groundwater Monitoring Plan

This schedule assumes a maximum of two months review and approval time for Ecology’s review of draft documents.

- AO = Agreed Order
- RI = Remedial Investigation
- IA = Interim Action
- RA = Risk Assessment
- FS = Feasibility Study

**required only if an Interim Action is implemented*