

**Response to Comments
on the Philip Services Corporation,
Georgetown facility draft permit modification,
issued for public comment on January 15, 2001
WAD 00081 2909**

The purpose of this response to comments is to summarize and respond to public comments received on the draft permit modification for corrective action at the Philip Services Corporation facility located in the Georgetown area of Seattle, Washington. As required by the Resource Conservation and Recovery Act (RCRA), the permit covers both operation (treatment and storage of hazardous waste) and corrective action. The permit modification relates exclusively to Section VII of the RCRA permit ("Corrective Action") for Philip Services Corporation - Georgetown (PSC). Corrective action requirements apply to all releases from solid waste management units, regardless of how the hazardous waste management activities are conducted and whether the facility is operating. A corrective action permit will be required until such time that the Agencies determine cleanup has been completed and no further action is necessary.

The operating portions of the permit are administered by the Washington State Department of Ecology (Ecology).

The public comment period for the Environmental Protection Agency's (EPA's) draft Permit Modification for the Philip-Georgetown facility RCRA permit began on January 15, 2001, and ended on March 16, 2001. A number of comments were received, both through the mail and verbally during the February 15, 2001, public hearing. This Response to Comments sets forth the comments EPA received and the Agency's responses. The comments are listed in the order that they were received; therefore, comments are sorted by date and author. Where multiple parties voiced similar concerns, the comment was only listed once. The commenters' names are not included in the table.

The comments covered a wide range of issues associated with the Georgetown facility. Multiple comments were made on six different topics: (1) the lack of penalty language in the permit modification, and no clear explanation of how the agencies would enforce violations of the permit; (2) the slowness of the RFI to date, and suggestions regarding speeding up Corrective Action; (3) the desire for the facility to cease operations; (4) concerns over what are seen as improper operations at the facility; (5) a desire for Interim Measures/Actions; and, (6) concerns regarding air emissions from the facility.

This document has been mailed to those individuals who provided comments on the draft permit modification in writing or at the 2/15/01 public hearing. It has also been sent to the Washington State Department of Ecology, the Puget Sound Clean Air Agency, and the Washington Department of

Health. In addition, a copy has been placed in the site-specific file repository at the Beacon Hill Library. This Response to Comments does not contain the actual transcript of the 2/15 hearing, nor does it contain copies of the letters EPA received as public comments. Copies of the hearing transcript and comment letters have been placed in the repository and also may be obtained by making a Freedom of Information Act request to Ms. Stephanie Kercheval of the EPA at (206)553-8665.

If the final permit modification, also issued today, is not appealed, it will become effective in thirty (30) days. At that time PSC must meet the requirements in the permit modification, which will supercede those requirements contained in the existing permit's Section VII.

To find out more about aspects of the final permit modification or response to comments, the public may contact:

! Howard Orlean, US EPA, Region 10 at (206)553-2851

! Jeanne O'Dell, US EPA Region 10 at (206)553-6919

To find out more about the requirements in the Georgetown operating permit, and the renewal of that permit, the public may contact:

! Sheila Hosner, Department of Ecology, Northwest Regional Office at (425)649-7071

Response to Comments on the Philip-Georgetown draft permit modification, issued for public comment on January 15, 2001

{NOTE: Philip Services Corporation is referred to as PSC throughout the responses below }

This response to comments is organized by specific topic.

I Enforcement of Permit Conditions/Schedule for Cleanup

Comment 1: Several commenters asked whether PSC will adhere to cleanup guidelines.

Response 1: One of the reasons for the permit modification is ensure that cleanup guidelines are followed. The old permit did not have specific schedules nor did it include provisions for interim measures. Section VII of the permit modification includes a requirement to conduct interim measures, and enforceable schedules for implementing the facility investigation and corrective measures. If PSC violates these schedules or any other permit condition, EPA may take an appropriate enforcement action, which includes the assessment of civil penalties. Actions to ensure compliance include: inspections, self-reporting requirements, and enforcement action if necessary.

Comment 2: What are the penalties if deadlines are not met?

Response 2: Permits do not contain language stating civil penalties may be assessed in the event of permit non-compliance. However, Section 3008(a) of the RCRA provides EPA with the authority to issue an order assessing a civil penalty for any past or current violations (this includes violation of a permit), require compliance immediately, or within a specified time, or both. EPA may assess a civil penalty of up to \$27,500 a day.

When non-compliance with permit conditions come to the agencies' attention, EPA may depending on the significance and the type of violation issue a Notice of Violation (NOV), or Complaint and Compliance Order, requiring compliance with the permit, and the assessment of a civil penalty for the alleged violations.

Comment 3: PSC needs to start corrective action now. It should not go on another 10 years.

Response3: The response to comment number 1 outlines the ways in which the permit modification will ensure that cleanup proceeds in a timely manner, including the requirement to conduct interim measures and the inclusion of enforceable schedules.

Comment 4 (2/15/01, hearing): The draft permit modification, including the new Corrective Action schedule, is a "step in the right direction," but EPA is allowing Philip to complete the remaining tasks too slowly. The facility should not be able to dictate the cleanup timetable.

Response 4: EPA does not agree that the schedule for Corrective Action is too long. The corrective action time frame included in the final permit modification is based on how long each task requires for preparation, field work, review, and Agency approval/disapproval. In addition, the schedule includes timeframes to allow for public and other agency participation in selection of the final cleanup remedy. These timeframes are based on the Agency's experiences with other facilities undergoing corrective and remedial action, and represent a reasonable period of time for each task, in order to ensure that these tasks are performed adequately and accurately. This does not mean that PSC cannot propose faster timeframes and work more quickly than what the permit requires of them.

To address concerns regarding ongoing exposures while the final corrective measures are designed, a new permit requirement (Section VII.C.5.) has been added to the final modification to ensure that PSC implements interim measures immediately, to ensure that human health and the environment are protected while the final Corrective Measure is being developed.

In response to these comments, permit condition VII.N. was revised to state that failure to meet the schedules contained in the permit shall constitute a violation. Any schedule extensions will now require a permit modification. This change to the permit will require that PSC notifies the public as well as EPA of any request to extend a schedule, and allows public participation in the decision to grant or deny such request.

Comment 5 (2/15/01, hearing): Based on the information in the Beacon Hill Repository, it appears that Philip will be responsible (in the modified permit) for addressing the site cleanup. If so, this seems like letting the fox tend the chicken house. Couldn't this create a good deal of temptation for cutting corners? The integrity and completeness of Philip's reports remain suspect. How will EPA monitor Philip's compliance with the modified permit?

Response 5: In establishing the RCRA corrective action program, Congress intended that the RCRA facilities themselves will perform the work required in order to assure that those parties responsible for the releases fund cleanup of those releases.

To minimize the benefit to facilities of "cutting corners", RCRA and its implementing regulations impose significant penalties for submitting false data. In addition, as part of its oversight authorities, the permitting agency can reject any data that are not of adequate quality. The extra expense of re-analyzing data also serves as a deterrent.

EPA will continue to oversee corrective action at the Georgetown facility until Ecology takes over this responsibility. EPA conducts cleanup oversight by reviewing, approving or disapproving all workplans, sampling plans and sampling reports, overseeing field work, and conducting unannounced inspections.

Once Ecology takes over from EPA, they (the State) will continue to inspect facility operations, but will also review/approve/disapprove corrective action submittals and proposals, and perform field oversight.

Comment 6: EPA should “immediately direct a completion of an Interim Measure Feasibility Study (or Work Plan) on a date-specific accelerated schedule. This study should focus on taking immediate action to eliminate or control on-going releases.” Though the draft permit modification has included language to allow EPA to ask for Interim Measures, there is “no justification for this step not to be mandated immediately.” There is ample evidence that releases or potential releases “present a potential imminent and/or substantial threat to human health and the environment...”

The measures to be evaluated for implementation as Interim Measures include:

- a) shut down or modification of facility operations;
- b) facility release-control improvements;
- c) pump and treat off-site contamination;
- d) Soil Vapor Extraction measures off-site;
- e) in situ treatment of contamination;
- f) dual phase vapor extraction;
- g) additional source control measures;
- h) construction of barrier walls to halt off-site migration; and
- i) co-implementation of bio-remediation.

Response 6: EPA agrees that interim measures must be implemented at this time. On June 28, 2001 EPA requested that PSC begin these measures voluntarily, prior to this permit modification becoming effective. An interim measure workplan is expected to be submitted on or about September 1, 2001. The interim measures must ensure that human health and the environment are protected while the final Corrective Measure is being developed. The Interim Measures typically evaluate the items suggested by the commenter, with the exception of shut down of the facility.

Comment 7: There is a need for more expedient measures – than simply more testing – to be taken. Neighborhood residents need to see immediate actions taken to address immediate health concerns. Interim Measures, “both on and off site,” should “be started immediately to protect human health and the environment, including the Duwamish River.”

Response 7: See the response to comments number 1 and 4.

Comment 8: In Section VII.A.11.: “Philip is currently in violation of the requirements to engage in corrective action ‘for all releases of hazardous waste or constituents’ and does not have in place an adequate schedule of compliance and assurance of financial responsibility for completing corrective actions.”

Response 8: The intent of corrective action is to clean up releases from solid waste management units at RCRA facilities. As discussed in the response to comment number 1, EPA’s reason for this modification is to establish an enforceable schedule for corrective action and requirements for interim measures and financial assurance.

Comment 9: Regarding Section VII.A.12. of the draft modification: Section 3004(v) of RCRA

requires hazardous waste facilities to conduct offsite corrective action to protect human health and the environment. PSC is currently in violation of RCRA Section 3004(v) since they have not undertaken “adequate action to prevent releases off-site from...” their property and have “avoided studying the source of the contamination where the 24 USTs were allegedly removed.

Response 9: EPA is strengthening the corrective action provisions of the permit to ensure that any and all off-site releases from the facility are evaluated and remediated. Section VII.A.12 of the permit requires PSC to implement Corrective Action for off-site releases. Specifically, permit condition VII.A.4 requires the RFI and the Corrective Measures Study (CMS) Scope of Work to include a complete evaluation of off-site groundwater contamination associated with releases from the facility; condition VII.C requires PSC to implement immediate cleanup action (“interim measures”) to control releases that pose a potential imminent and/or substantial threat, and; condition VII.D requires PSC to perform Corrective Measures.

Comment 10: The draft permit modification language allows PSC to implement a groundwater interim measure that can take another four years to protect current human health and stop plume movement. This is “too far into the future to do any good.” The damage done by then “will be irreparable.”

Response 10: See the response to comments 1 and 4.

II Cleanup Levels

Comment 11: Will there be cleanup standards established? Who will monitor the cleanup area?

Response 11: Under Section VII.D.3. of the permit, cleanup standards will be established as part of the selection of a Corrective Measure (cleanup action). This will require a permit modification, and therefore, public comment will be solicited on both the proposed measure and the cleanup levels.

Under the permit, PSC must monitor the cleanup and conduct periodic evaluations of the effectiveness of the cleanup. EPA will retain primary enforcement responsibilities, until Ecology reissues the permit.

Comment 12: In Section VII.F.5. of the draft permit modification, the language concerning demonstrations that the remedial action objectives and cleanup levels have been met should be clarified to state that PSC may at anytime after twelve consecutive quarters of monitoring demonstrate that remedial action objectives and cleanup levels continue to be met.

Response 12: The language in Section VII.F.5. has been clarified to state that the written demonstration of achievement of remedial action objectives and cleanup levels (after twelve consecutive quarters of compliance monitoring) shall be contained in a permit modification request.

Comment 13: Table VII-4 of the modification should be labeled: “Preliminary Cleanup Levels.”

Response 13: This table has been removed from the final permit modification. Preliminary cleanup

goals will be proposed in the final RFI report. Final cleanup levels will be established in a permit modification which will be issued when the final CMS report is approved.

Comment 14: Cleanup “remedies must establish long term clean water and air standards compatible with current and future uses” (in this case, residential and industrial uses). The Amalgamated Sugar Company, immediately west of the Philip facility, is “a food facility and as such Philip must meet stringent clean up standards.”

Response 14: EPA agrees that cleanup levels for the Georgetown site must be protective and linked to the current and reasonably anticipated future uses of the facility, the neighborhood and impacted media. The Agency believes that the process set out in the final permit modification, with requirements for an RFI risk assessment, will accomplish this goal.

Comment 15: There are problems with the definitions in VII.A.2. of the draft permit. The commenter is concerned that the changes to the definitions will a) create a standard to allow contamination to continue to move off-site, and b) imply a ‘leave in place’ standard.

For example, the Environmental Indicator definitions are vague and are not “the appropriate indicators for EPA to base its decisions as to clean up levels and future activities.”

In addition, PSC should “meet drinking water standards at its property boundary.”

Response 15: The definitions of the Environmental Indicators are those provided by the Agency nationally. The Indicators are expressions of EPA’s RCRA Program’s highest short-term priorities of Corrective Action. The Agency’s short-term goal is to assure that groundwater plumes have ceased to migrate and that there are no current human exposures from any RCRA facility. Once these short-term goals have been achieved, then design and implementation of final corrective measures to restore the contaminated area should proceed as quickly as possible. The Indicators are **not** statements of what is minimally necessary for an adequate, long-term Corrective Measure.

Please see the response to Comment #39, related to the issue of what amounts of contamination may be “left in place” at the termination of Corrective Action.

In a future draft permit modification the agencies will propose the final Corrective Measure, cleanup levels, and Points of Compliance. The agencies will also clearly state what uses the proposed groundwater cleanup levels were based upon. For this site it is likely that off-site areas with contaminated groundwater will be remediated so that the groundwater can: a) realize a future use as drinking water, b) not act as an unacceptable current or future threat to the Duwamish Waterway, and c) not act as an unacceptable source of volatile contamination to indoor air.

Comment 16: Federal drinking water standards should be required in the permit.

Response 16: Federal drinking water standards are not specifically required in the permit, however

Ecology's state regulations set cleanup levels for hazardous constituents in groundwater that go beyond federal maximum contaminants levels (MCLs). Ecological risks may also require cleanup standards lower than MCLs.

Comment 17: In Section VII.A.4. of the draft permit modification the language is problematic because it appears to infer that "the point of compliance with applicable clean-up levels may be beyond Philip's property boundary..." It also seems to suggest that the designation of a new point of compliance would not require a permit modification. The point of compliance for the Philip facility must "be at its property boundary" and the modification language should state this.

Response 17: EPA presently considers the groundwater point of compliance at the Georgetown facility to be *throughout the plume*. This is often referred to as the "standard" point of compliance. This means that any groundwater which is contaminated by facility releases, whether that groundwater is beneath the facility or beneath property off the facility, is subject to corrective action and must be remediated to the cleanup levels. In establishing the post-RFI points of compliance, the agencies will use Ecology's MTCA regulations. These regulations allow for an alternative, conditional point of compliance at the facility boundary, if it is not practicable to meet the cleanup levels throughout the plume.

The point of compliance that will be used once a preferred Corrective Measure is identified will be proposed in the same permit modification where the Corrective Measure itself is presented to the public for comment. This will allow the community to comment not only on the measure(s), but the proposed cleanup levels and where these levels need to be met.

Comment 18: The term "remedial action levels" (Section VII.A.4.a.9) should be changed to "drinking water standards."

Response 18: Drinking Water Standards may not be appropriate for remedial action levels for the different saturated zones underlying, and downgradient of, this site. Final groundwater cleanup levels will be determined as set forth in MTCA regulations and will be subject to public comment through a permit modification.

Comment 19: The terms "preliminary clean up levels" and "objectives" (Section VII.A.4.a.9) as applied to Environmental Indicators are vague and do not meet federal requirements for treatment, storage, and/or disposal facilities.

Response 19: Remedial action objectives are media-specific (e.g. soil, groundwater, air) goals for protection of human health and the environment. These are consistent with Environmental Indicators which are also goals for prevention of exposure from contaminated media. The rationale for calling the clean up levels and remedial action objectives "preliminary" in the RFI Report is that the clean up levels and goals may change as new information is obtained during the Corrective Measures Study. The final remedial action objectives and cleanup levels will meet all federal and state requirements and will be documented in a permit modification following an opportunity for public comment.

III Facility Inspections

Comment 20: Who is going to stop Philip from “covering up” their spills, fires, air pollution, etc?

Response 20: The PSC facility is routinely inspected by EPA, Ecology, and other governmental agencies. The permit requires reporting of releases, fires, and spills (Section II.C.2.). Failure to report can result in enforcement action, as discussed in the response to comment number 1. This permit modification does not change or limit this requirement.

IV Facility Siting and Neighborhood Property Concerns

Comment 21: Is EPA aware that White Satin Sugar is no longer operating?

Response 21: Yes, we were notified in December 2000.

Comment 22: The PSC facility should be moved to a less populated area.

Response 22: The permit modification only covers cleanup of the contamination caused by the facility. Siting and operational issues are outside the scope of EPA’s jurisdiction. The State of Washington has promulgated siting criteria found at WAC 173-303-282 which establish where a hazardous waste facility may be located. This section also sets forth how those criteria apply to existing facilities which predate the criteria.

The facility’s compliance with siting criteria will be considered by Ecology when the State reviews PSC’s new permit application.

Comment 23 (2/15/01, hearing): The Philip facility: a) “doesn’t have the buffer zone it should have; b) received 88 citations in 1980; and c) poses a safety concern to the community. “I don’t see how they can still be there.”

Response 23: See the response to comment number 22.

Comment 24 (2/15/01, hearing): EPA and/or the Washington State Department of Ecology should test the groundwater underlying the playground located between Homer and Findlay, south of the Philip facility.

Response 24: The RCRA Facility Investigation (RFI) has not focused on the playground for sampling because no soil contamination has been found west of Denver Avenue. In addition, groundwater beneath the playground is cross-gradient from the groundwater contaminant plume associated with the PSC facility. Therefore, it is unlikely that groundwater beneath the playground would be contaminated with chemicals associated with the PSC facility.

Ecology has performed some limited groundwater sampling at the playfield (on March 29, 2001). The

results indicate that some hazardous chemicals, particularly in the northwest corner of the park, are above their respective drinking water standards in the groundwater. More information about this sampling event will be provided by Ecology to the public in a future newsletter.

Comment 25: The community is extremely concerned about the “on-going operational status of the facility, particularly the likelihood of fires/explosions. Why has EPA refused to require modification to ...” sections other than Section VII of the permit? What “does EPA intend to do about this?”

Response 25: Because the operating permit was issued by Ecology, EPA’s role at the PSC Georgetown facility has been limited to overseeing the facility’s corrective action activities.

This comment has been shared with Ecology for consideration when the state reviews PSC’s new permit application.

Comment 26: EPA must consider if the “massive scale of Philip’s facility is appropriate for the Seattle area.” The scale “poses an unacceptable risk to Seattle residents.”

In addition, due to air quality and other concerns, “EPA should forbid Philip from accepting such enormous amounts of dangerous waste.”

Response 26: See the response to comment number 22.

V Corrective Action Sampling and Monitoring

Comment 27: In VII.A.4.a(4) of the draft modification the language should be changed so that:

- a) “method reporting limits (as well as...Quantitation Levels)” is deleted, and
- b) a sentence is added at the end stating: “In addition, method reporting limits, Method Detection Limits, and Practical Quantitation levels will be provided on these tables as available.” MDLs, MRLs, and PQLs are “not always available in historical laboratory packages.”

Response 27: Based on the comment, EPA has changed Section VII.A.4.a(4) to: “summary tables...to include: sample collection date; sample location; constituents analyzed for and their concentrations; and the media-specific preliminary remediation goals...(VII.A.3.d). In addition, method reporting limits, Method Detection Limits, and Practical Quantitation levels will be provided on these tables as available. If these limits are not available to the Permittee for certain data sets, the RFI Report shall include a discussion describing why such limits are absent and how this absence affects the data’s usability.”

Comment 28: In VII.A.2. of the draft permit modification EPA defines “PQL.” This definition is antiquated and should be replaced by the definition of EQL contained in the 1992 version of Chapter 1 of SW-846.

Response 28: The language used to define PQL (the practical quantitation limit) in the draft permit modification was taken from the 2000 edition of 40 CFR 264 Appendix IX and has not been revised in

response to this comment. The MTCA cleanup regulations also rely on PQLs.

Comment 29: Section VII.B.2. of the draft modification should be changed to add “newly detected” in front of 40 CFR 264 Appendix IX...

Response 29: EPA disagrees that Section VII.B.2. should be changed. The regulations at 40 CFR §264.99 require that any constituent that is not already identified in the permit as a monitoring constituent is subject to the Appendix IX reporting and analysis requirements.

Comment 30: Table VII-2 of the draft modification should be changed so that:

- CG-6-S1 and CG-7-S1 are sampled annually, in the fourth quarter
- VOCs are analyzed for semi-annually, during the first and second rounds of sampling wells CG-1-D, CG-2-D, CG-4, CG-5-D, CG-102-D, and CG-104-D
- cyanide is not included as a pre-corrective monitoring analyte

The first two bullets were approved by EPA in a letter dated March 24, 2000.

Response 30: Table VII-2 has been taken out of the final permit modification. Permit condition VII.B.4 requires a permit modification if the Permittee or the Administrator conclude that the Pre-Corrective Action Monitoring Plan must be revised. At this time, it is EPA’s conclusion that the changes sought by the commenter are premature and should not be put forward until the Permittee has shown, through documentation in the RFI Report, that these changes are warranted.

Comment 31: Condition VII.G.4. of the draft modification states that the selection of the Appendix IX well must be approved by the agencies. However, Table VII-2 shows that well CG-104-I shall be the well used for this purpose. The commenter suggested language in Section VII.G.4. that allows for the sampling of a different well as long as the different well is proposed at least 30 days in advance of the sampling date, and the proposal is approved by the agencies.

Response 31: EPA agrees with this comment. Permit condition VII.G.4 has been changed to state that the Appendix IX well must be specified in the sampling plan and any change to the sampling plan will require a modification of the permit.

VI Nature and Extent of Contaminant Releases from the Facility

Comment 32 (2/15/01, hearing): Soils at the site are contaminated because dumping took place. EPA should not only focus on leaking Underground Storage Tanks (USTs).

Response 32: Section VII of the existing RCRA hazardous waste storage permit, as well as EPA’s final permit modification of this Section, addresses all releases from solid waste management units at the Georgetown facility irregardless of the time at which the wastes were managed or released. This means that historic spills and sloppy practices are also subject to investigation and cleanup. All such releases from past management practices – even those which may have included intentional disposal – are

subject to RCRA Corrective Action. Due to the ubiquitous nature of the source area(s), the entire Facility is being investigated as a single source area.

Comment 33 (2/15/01, hearing): “Were there any places tested west or south or anywhere that have not shown contaminants or is it just that we haven’t found contaminants further because we haven’t tested further west?”

Response 33 : Soil contamination, attributed to the facility, has not been found south of Lucile St., or west of Denver Ave.

Groundwater contamination has been detected in some locations as far west as Highway 99 and as far south as the intersection of 1st Ave. S. and E. Marginal Way. PSC has not sampled west of E. Marginal Way, or in the river itself. However, EPA believes that sampling to date has shown that some groundwater contaminants may have reached the river, even though there have been several locations between the facility and the river where volatile compounds were not detected in samples analyzed by PSC. Most of the off-site groundwater information related to the PSC site is available in the Draft RFI Report, the 1998 Hydropunch Study and the 2000/2001 Technical Memoranda prepared by PSC as part of the Supplemental Off-site RFI Characterization effort.

Comment 34 (2/15/01, hearing): Some of the chemicals found indoors during sampling were not found outdoors (e.g., acetone). So it is not true that the same chemicals found inside were also found outside.

Response 34: For the samples collected in August 2000, there was significant overlap among those chemicals found indoors, outdoors, in soil vapors, and in groundwater. For those chemicals found in all media, especially at a given residence or business, it was very difficult to discern what amount of a given chemical was attributed to a specific source. EPA expects that the additional sampling of indoor air, soil gas, outdoor air, and groundwater will help to quantify the contributions from various sources to the indoor air in this area.

Comment 35: EPA needs to require characterization of the source area.

Response 35: There have been soil borings (and samples) and well sampling undertaken on PSC’s property. Much of this information is dated, however. If the facility planned to remove their facility-wide concrete “cap” EPA would require more characterization of this area, since people would be more likely to come into contact with the contamination, and precipitation could infiltrate into site soils and carry contaminants to the shallow aquifer.

After EPA has reviewed the information in the RFI Report, the Agency will determine whether additional source characterization is necessary.

Comment 36: RFI Work Plans need to “quantify the contaminates left in place at the time the tanks were removed”.

Response 36: Permit condition VII.A.4.a.1 requires the draft RFI report to include characterization of the nature and extent of contamination. Therefore, information concerning soil contamination remaining after the underground storage tanks were removed, should be available to the agencies in the draft RFI Report.

The evaluation of the extent of contamination in the draft RFI report should also include some estimate of the quantity of *Dense Non-aqueous Phase Liquid* (DNAPL) contamination. However, since a cap is in-place currently, the vadose zone underlying the facility is less of a concern to the agencies (as a source for groundwater contamination) than the substantial contamination found at the bottom of the intermediate aquifer, immediately downgradient from the facility. It is also true that a common practice in investigations of DNAPL is to determine the extent of the contamination by demonstrating where it is not. Such a strategy offers the advantage of minimizing the possibility of mobilizing the DNAPL during the investigation.

VII Groundwater Contamination

Comment 37 (2/15/01, hearing): The fact that EPA still does not know how large the groundwater contamination plume is “is ridiculous.”

Response 37: Recent groundwater monitoring conducted by PSC, and presented in the draft RFI Report which was submitted to EPA on June 30, 2001, shows that the groundwater plume has extended west of the facility about one mile to East Marginal Way.

EPA is concerned that groundwater contamination may be impacting the Duwamish River and one of the objectives of the interim measure is to implement cleanup actions to stop the migration of the plume.

Comment 38 (2/15/01, hearing): Is the groundwater contamination as far south as 1200 S. “Anderson” [NOTE: perhaps due to a transcription error this street name was interpreted as Anderson instead of Angelo] Street?

Response 38: EPA believes that the address of concern is likely to be 1200 S Angelo Street. This location is south and east of the known extent of groundwater contamination (resulting from Philip facility releases). The commenter may also refer to PSC’s Draft RFI Report, June 30, 2001, or, Technical Memorandum VI, April 20, 2001, for more detailed information about the extent of off-site groundwater contamination. These documents are in the repository.

Comment 39: We agree with much of EPA’s approach, but “are concerned with the potential for Philip leaving large quantities of...” hazardous/dangerous wastes “in place.”

In particular, “EPA must not allow Philip to leave dangerous waste in the groundwater”. The draft permit modification allows “Philip to leave significant quantities of hazardous and (State dangerous) waste in the groundwater for an indefinite period of time.” Once Philip has completed their required “studies,” they should not be allowed to “claim closure and effectively dispose of large amounts of

dangerous material in the groundwater.”

Response 39: If hazardous wastes remain in place below the surface of the facility at the time of the facility’s closure, the facility will need to close the area where hazardous wastes are located as a regulated hazardous waste landfill. This entails long-term monitoring, capping the waste, control/clean up of contaminated groundwater migrating away from the unit, and a minimum of 30 years of post-closure care and monitoring.

The facility may be required to remove as much of the contamination as possible. In some instances, it is not feasible to dig up, or pump out, all the contamination. It may also not be feasible to treat the contamination so that the levels of contaminants are below risk-based, acceptable levels. In these cases it is often common for the final Corrective Measure to be a cap with long-term environmental monitoring and control or clean up of contaminated groundwater leaving the unit/site. The eventual final closure of the Facility will be subject to public comment, and will be integrated with the remaining corrective action obligations.

Comment 40: The commenter is very concerned “about the historical impacts that the Georgetown facility has had on the groundwater quality beneath our property.”

EPA should require Philip to “install permanent, nested wells (in the upper, mid and low aquifer) in order to...”: a) better determine the direction in which groundwater flows (results by Stratoprobe will not give a clear delineation of groundwater direction and flow), b) determine the “horizontal extent of the plume migrating onto the property, the vertical extent of the contamination, and whether natural attenuation is indeed occurring.”

Response 40: EPA acknowledges the concern about historical impacts. New, off-site monitoring wells were proposed by PSC on April 20, 2001. The proposals were formally commented upon on May 18, 2001. EPA agrees with the commenter that PSC should install additional wells into all three aquifers for the purposes described. Permit condition VII.A.5 requires additional work if EPA or PSC determine it is necessary. As such, PSC is being required by EPA to install additional wells to determine the extent of the groundwater contaminant plume west and southwest of the facility. EPA also expects that as additional groundwater data is received more hydropunch and/or monitoring wells than these will be required in the future until complete characterization of the groundwater contaminant plume is accomplished.

As the commenter correctly asserts, obtaining an adequate understanding of groundwater movement, contaminant movement within the groundwater, and rates and mechanisms of natural attenuation is critical to the RFI and CMS.

VIII Air Releases

Comment 41 (2/15/01, hearing): “What are OSHA’s requirements for air quality?”

Response 41: OSHA has established Permissible Exposure Limits related to safe **employee** exposures. These limits are chemical-specific, but they depend in part on whether there is only one or more than one chemical in the employee's breathing space, and how long the exposure time is. OSHA's limits and the equations used to calculate limits when there are multiple chemicals present can be found in the Code of Federal Regulations, Chapter 40, section 1910.1000. This document is available from the EPA Region 10 Library, 12th floor, 1200 Sixth Avenue, Seattle, 98101.

Comment 42: A commenter who lives near Airport Way and Corson expressed concern regarding air emissions. "Every night I check the smoke stack to see which direction the wind is blowing. I have my own evacuation kit."

Response 42: PSC stack emissions are outside the jurisdiction of this permit modification. The only stack operated under EPA's RCRA Corrective Action authorities is the emissions vent from the Soil Vapor Extraction (SVE) System's Catalytic Oxidation unit. Its design and expected emissions were permitted by the Puget Sound Clean Air Agency prior to operation.

If this SVE stack continues to operate, it must be evaluated at least annually to ensure EPA and the State that emissions are protective of human health and the environment (Section V.D.4.).

If, due to the needs of corrective action, EPA and the State determine that measures must be implemented that include devices which emit contaminants to the atmosphere, the regulatory agencies will ensure that those emissions are controlled to be protective of human health and the environment.

Comment 43: There are concerns that the operations of the facility release hazardous air emissions; EPA's "corrective action authority should extend to all air releases."

Response 43: Air emissions from RCRA facilities are regulated by Part 264 Subparts AA, BB, and CC. Air emission requirements are found in PSC's operating permit and are issued under Ecology's jurisdiction.

In addition, WDOH is preparing a Health Consultation concerning air emissions from the facility. This report, when released, will be contained in the facility repository.

IX Risk Assessment

Comment 44 (2/15/01, hearing): "What effect does vinyl chloride have on animals and vegetation?"

Response 44: Inhalation and ingestion studies conducted on animals have shown that vinyl chloride can cause birth defects, miscarriages and cancerous tumors. Very few studies have been done on the effects of vinyl chloride on vegetation as vinyl chloride evaporates readily into the air and it is difficult for vegetation to absorb. The toxicity of vinyl chloride to animals and vegetation will be discussed in the draft Risk Assessment which is due to be submitted by PSC to EPA on August 10, 2001. The draft Risk Assessment will be available for public review in the facility repository at the Beacon Hill Library.

Comment 45: One commenter expressed concern that Philip's employees are at risk, as well as the neighborhood. The commenter read about the woman who had water in her basement and whose pets died; "what has to happen before people take care of this problem?"

Response 45: The person referred to in the newspaper article has had numerous discussions with EPA staff. The Agency targeted her apartment as a high priority for measuring indoor air quality last August. The apartment was sampled by both PSC and the Washington Department of Health (WDOH). At the end of last March the apartment was re-sampled by WDOH, although the woman no longer resides there. The water that accumulated on occasions in the apartment was likely due to precipitation events and the location of downspout discharges. It is unlikely that the water came from contaminated groundwater underlying her residence.

Nevertheless, it still remains a possibility that contamination due to releases from PSC's facility have affected this person's, and perhaps her pets', health. This potential cause is difficult to definitely rule out, even though the levels of air contamination detected in the apartment were far below concentrations expected to result in acute effects.

Groundwater is significantly contaminated west and southwest of the Georgetown facility. This contamination would be a serious health concern for residents and workers in the area if the groundwater was being used as drinking water. Since it is not, however (all drinking water in this area is supplied by the City from surface water sources), the health effects of most concern – attributable from past releases of hazardous constituents – are those which may potentially arise from groundwater contamination discharging to the Duwamish Waterway, and contamination in indoor air resulting from groundwater contaminants which have entered the gas phase underground, and have subsequently moved up through the soil into inhabited structures.

The permit modification includes a schedule for completing the investigation of these exposure pathways this year, and moving to select an optimal cleanup approach by mid 2002. Without this modification there are no set dates within the permit for getting to final Corrective Measures (cleanup). EPA has also notified PSC (on June 18, 2001) that an Interim Measure is required, which should be implemented in advance of final Corrective Measures. In addition, the permit modification includes a provision (Section VII.C.5.) which requires interim measures with specific deadlines.

Comment 46: Draft modification requirement VII.A.4.a(16) should be changed so that the following statement is added after *based on residential ingestion*: "provided that Permittee has been identified as the source of the hazardous constituents."

Response 46: Contaminants of potential concern (COPCs) located in a known groundwater plume are assumed to be from the PSC facility unless demonstrated otherwise. Groundwater monitoring conducted to date has shown that COPCs in groundwater have been associated with the hazardous waste activities conducted at the PSC facility.

EPA believes that residents and property owners who are or may be affected by contaminants of

concern in groundwater associated with the PSC facility should be notified about the results of all groundwater monitoring whether or not the contaminants exceed applicable risk-based standards. Therefore, permit condition VII.A.4.a(15) (previously permit condition VII.A.4.a(16)) now reads: “a brief account...hazardous constituents which: exceed screening levels based on residential use of the groundwater as drinking water; and, are contaminants of potential concern for the Permittee’s facility.”

Comment 47: One commenter disagreed with Section VII.D.1 of the draft modification and EPA’s premise that the RFI Report will limit assessment of risks and contamination to current conditions. The commenter stated that PSC intends to assess future impacts to receptors during the RFI risk assessment.

Response 47: EPA has moved this condition to Section VII.A.3.d. which lists requirements for the risk assessment portion of the RFI Report. In addition EPA has modified this condition in the final permit to be consistent with the commenter’s statement. An analysis of fate and transport of contaminants, and their associated future risks are commonly part of an RFI Report.

Comment 48: Item “2” in Table VII-1 of EPA’s draft permit modification has been completed. It may be deleted.

Response 48: EPA has deleted this item concerning the Risk Assessment Work Plan from final permit modification. The work plan was approved by EPA on April 16, 2001. The approved Work Plan is available for review in the Beacon Hill Library repository. The agencies will consider any public comments on the Risk Assessment during their review of the draft RFI Report.

Comment 49: The “residential risk factor is not adequate.”

Response 49: The permit modification does not include “residential risk factors.” EPA has, however, scrutinized PSC’s Risk Assessment Work Plan to make sure that the exposure factors, include those for residential risk where appropriate, and that the exposure factors conform to federal and state guidance. Such factors are used in the RFI risk assessment to calculate risk to human and ecological receptors.

X 1991 Permit

Comment 50 (2/15/01, hearing): Since no one was notified that a determination of nonsignificance was made, the facility was granted an illegal permit in 1991.

Response 50: The facility was in existence in 1980 and thereby obtained “interim status” under the RCRA. As the facility was still operating in 1984, the date when corrective action obligations were promulgated, it is subject to corrective action requirements, regardless of whether the permit was legally issued under Washington State law.

This comment has been shared with Ecology for consideration when the state reviews PSC’s new

permit application.

Comment 51 (2/15/01, hearing): Is the permit modification changing the treatment and storage status of the facility?

Response 51: No. The 1991 permit allowed the company (Chemical Processors, Inc. at that time) to store and treat certain hazardous/dangerous wastes. More recently, Philip has ceased treatment operations at the facility, and now only stores wastes pending recycling or transportation to a treatment and/or disposal facility. Though the Georgetown facility performs waste consolidation, its permit allows Philip to store hazardous/dangerous wastes for longer than 90 days.

EPA's permit modification is limited to only Section VII (Corrective Action) and does not alter operating requirements in Sections I-VI.

Comment 52: Philip failed to "obtain closure for the hazardous waste USTs as required by 40 CFR 270.1."

Response 52: The USTs were not regulated units under RCRA and therefore are not covered by the permit. However, the permit requires PSC to perform corrective action to investigate and clean up environmental contamination from facility releases which would include any releases from the USTs.

XI Public Involvement and Access to Information Concerning the Facility

Comment 53 (2/15/01, hearing): One commenter expressed concern at being required to use the Freedom of Information Act (FOIA) process to obtain information.

Response 53: The Freedom of Information Act requires EPA to provide complete information to requesters and enables the Agency to track requests and responses. To the extent that a request requires the compilation of a large amount of material, the response will take some time.

To ensure easier public access to information regarding PSC, EPA augmented the FOIA process with an Open House (on November 30, 2000). In addition, PSC and EPA have placed a large number of the relevant documents in the Beacon Hill Library Repository that are available to the public. As more documents become available, EPA and PSC will continue to supplement the Repository.

Comment 54 (2/15/01, hearing): One commenter requested a list of all the findings of all the air quality tests done in Georgetown. In addition, the commenter requested "a list of the addresses of these tests,..."

Response 54: Since 1998, there have been groundwater and soil gas sampling of off-site soils, some off-site indoor air sampling, and some off-site outdoor (ambient) air sampling undertaken in support of the RCRA Facility Investigation (RFI). Last summer PSC sampled indoor air at two residences on the west side of Denver Ave. This was followed by indoor air sampling by the Washington Department of

Health (WDOH) and EPA at the same two residences, as well as two facilities east of Denver Ave. and an additional residence on Maynard and Brandon. The results of the sampling, and the specific locations sampled, are included in PSC's September 2000 *Indoor Air Analysis Report* and WDOH's December 1, 2000, Health Consultation report. EPA responded in writing to PSC's Report on December 5, 2000. All three of these documents are contained in the Beacon Hill Library site repository.

On March 22 and 23, 2001, WDOH re-sampled several of last year's indoor sampling locations, as well as locations further downgradient of the facility. The results of that effort will be reported in a future WDOH Health Consultation and in PSC's RFI Report.

Comment 55: The facility should "notify" all residents, workers, and property owners of the nature and extent of contamination.

Response 55: Permit condition VII.A.14. was changed to specify that PSC notify property owners and residents of the nature and extent of contaminated groundwater prior to the time the draft RFI Report is submitted and annually thereafter. Workers will be notified pursuant to the requirements of state and federal worker safety laws and regulations.

PSC, EPA, and Ecology will continue to send informational fact sheets to persons on the facility mailing list, and continue to solicit interest from members of the public who might want to be added to the list. In addition, facility documents will continue to be available at the repository, and EPA's and Ecology's informational websites will be maintained.

Comment 56: EPA needs to improve its methods for informing people. The Agency needs to clearly and simply inform: a) the community of precautionary measures that can be taken to limit potential exposures, and b) the community of potential health effects associated with the contaminants of concern.

Response 56: EPA welcomes suggestions from the community as to how the Agency can better meet their needs and expectations. Permit condition VII.A.4.a.(12) requires PSC to submit a Community Relations Plan as part of the facility's draft RFI Report. The draft RFI Report will be in the repository. EPA encourages interested community members to review the draft Community Relations Plan, and help fashion a final Plan that effectively serves the public.

Information taken from the Integrated Risk Information System (IRIS) database for a number of the contaminants of most concern will be made available to the public at the Beacon Hill Library repository. Such information is also available from the WDOH. In addition, in the RFI Report PSC will provide this information for those contaminants which are present in media at levels high enough to lead to unacceptable risk. Both the Report and EPA's comments on the Report will be included in the facility repository.

Comment 57: A subset of the signatories should be added to the facility mailing list.

Response 61: This has been accomplished (EPA assumes that the “list” referred to in the comment is the site-specific, Philip-Georgetown facility mailing list).

Comment 57: In Section VII.A.3.a. of the draft permit the final sentence should be changed to add at the end: “provided that the Permittee has been identified as the source of the hazardous constituents.”

Response 58: The last sentence of Section VII.A.3.a of the draft permit refers to notification of property owners regarding results of groundwater monitoring. Based on numerous comments received, EPA has replaced the final sentence of Section VII.A.3.a. with new Section VII.A.14. Section VII.A.14 contains more comprehensive and clearer language which requires PSC to notify all residents and property owners annually, who live above groundwater being monitored by PSC, about the results of groundwater monitoring whether the contaminants exceed or are in compliance with groundwater standards.

Comment 59: A community technical advisor is needed and should be appointed by EPA.

Response 59: EPA agrees that a technical advisor to the community, or portions of the community, may be advisable. The Agency is willing to work with community groups to obtain a technical advisor.

Comment 60: EPA’s draft permit modification “does not provide for comprehensive public involvement.”

Response 60: EPA and Ecology’s goal is to provide expanded public involvement at this site. While EPA is involved in the oversight of PSC’s corrective action, the Agency will: a) require the facility to prepare and implement a Community Relations Plan (as part of the RFI); b) require PSC to follow all applicable regulations for notifications and comment periods; and c) continue to send fact sheets, hold informational meetings, and be responsive to community members.

It is expected that when Ecology assumes the oversight responsibility for corrective action this relationship will continue or be improved. Both agencies welcome suggestions for how we can better inform the community and solicit their input.

Comment 61: One commenter had a concern regarding Section VII.A.3. of the draft permit modification that neither the ‘99 RFI Scope of Work or the Risk Assessment Work Plan were subject to public review.

Response 61: The commenter is correct to the extent that these documents did not have their own comment periods. The RFI Scope of Work, however, could have been commented upon during the permit modification comment period. Any comments on the Risk Assessment will be considered during the EPA and Ecology’s review of the draft RFI Report.

All documents in the repository are available for review, and following review the public may send the agencies their comments. Likewise, historical documents not in the repository may be requested, and

EPA and Ecology will accept and consider any comments the public provides.

Comment 62: All data should be immediately made public and placed on a website.

Response 62: EPA has included some documents on its Region 10 RCRA website, and will continue to post significant EPA-prepared documents there. In addition, the Agency will consider making non-confidential data in EPA's possession available on the website. Additionally, such data may always be requested pursuant to the Freedom of Information Act.

Comment 63: In Section VII.A.8.: the permit modification should be modified so that records are required to be maintained at the EPA Regional Office or a local library or another public building.

Response 63: EPA agrees with this comment and has changed Section VII.A.8. accordingly.

Comment 64: Section VII.B of the draft permit modification should be changed so that Philip is required to "publish raw data within 10 days of its receipt."

Response 64: EPA has not included this recommendation in the final permit modification. The need for raw data submissions is rare, and the Agency has other authorities for requesting data when such a need arises. Commonly, in approved Work Plans EPA is provided data so many days after it is validated.

In most cases data that EPA receives from PSC comes attached to reports or technical memoranda. Copies of these documents will continue to be sent to the repository for the public's information and can be obtained through the FOIA process. In addition, during finalization of the Community Relations Plan, EPA will discuss with the facility and the community various ways that the data may be made more available.

Comment 65: Section VII.D. should be revised so that the public is able to review and comment on draft measures, studies, and reports. It is "difficult to say what EPA is trying to get at in this section."

Response 65: EPA encourages public/stakeholder review of PSC documents. The public may comment upon any documents in the repository, as well as those that are releaseable in the agency files. A permit change is not needed to provide for this.

EPA and Ecology are also willing to discuss public reviews of individual Corrective Action documents with the community, and are currently evaluating the best avenues to learn about the public's concerns and views outside of the formal comment periods. Some options are: individual, or small group, interviews; informal meetings; establishment of local office hours; soliciting comments from local community groups; soliciting written public comments; holding open houses or *availability* sessions; encouraging the formation of a Citizen Advisory Group; and/or encouraging the designation of a community Technical Advisor person or group.

Comment 66: EPA's modification should make it clear in Section VII.D.3. that permit modifications "should be allowed after full public comment..." from the affected community.

Response 66: Section VII.D.3. states that the Administrator shall solicit public comment on the proposed modification in accordance with 40 CFR Part 124. This section provides for a 60-day public comment period and a public hearing if one is requested.

XII Agency Resources Devoted to Cleanup of Facility

Comment 67 (2/15/01, hearing): EPA's assignment of only one part-time employee to this site is foolish.

Response 67: Since last summer (2000) EPA has allocated approximately one half *full time employee* ("FTE") to manage the PSC facility's corrective action projects. EPA has also assigned support staff from the Agency's Offices of Regional Counsel, Environmental Assessment, and Community Involvement.

This level of EPA resource commitment is consistent with what the Agency would commonly put forth for a high priority RCRA or Superfund site.

Comment 68: EPA needs to place a higher priority on the site so that faster cleanup results are assured.

Response 68: The PSC facility has been ranked as a high priority cleanup by EPA. See response to comments number 4 and 67.

XIII Transfer of Corrective Action Oversight from EPA to Ecology

Comment 69: "It is probable that the transfer of corrective action activity oversight from EPA to Ecology will cause additional delays..." EPA should "retain authority and oversight" of Section VII of the facility's permit.

Response 69: EPA does not believe that the transfer of Corrective Action oversight from the Agency to Ecology will "cause additional delays." The two agencies have been planning for over a year to make this transition proceed as smoothly as possible.

Ecology is fully authorized for corrective action, which means that it has the resources available to implement the program in a manner equivalent to EPA. In addition, EPA will retain its independent oversight and enforcement authorities under section 3008 of RCRA and 40 CFR §271.19.

XIV Submittal Dates for Corrective Action Documents

Comment 70: One commenter requested that the submittal date for the RFI report be linked to

collection and receipt of data that is crucial to development of the Comprehensive RFI Report, and to EPA approval of work plans and other documents that describe work to be incorporated into the report, such as the Final Risk Assessment Work Plan. The commenter stated that a submittal date of June 1, 2001, is “not achievable, nor does it make any sense. Based on the currently planned data collection activities, we will have less than 45 days to validate the data, incorporate the data into the required figures and tables, and to assimilate the information meaningfully into the Risk Assessment and into the conclusions and findings of the RFI Report.”

The commenter further stated that ninety days for “validation and data incorporation is reasonable.” The permit modification should state that the draft RFI report will be submitted “to EPA 90 days following receipt of the final data to be incorporated into the report, or within 90 days following EPA approval of the Final Risk Assessment Work Plan, whichever is later.”

Response 70: EPA agrees with the commenter’s statement that the draft RFI Report submittal date should be linked to “collection and receipt of data that is crucial to development of the Comprehensive RFI Report, and to EPA approval of work plans and other documents that describe work to be incorporated into the report, such as the Final Risk Assessment Work Plan.” However, since the early 1990s PSC and earlier owner/operators of the facility have had an obligation under their RCRA permit to complete the RFI and produce a Report sufficiently adequate to move the site forward into cleanup. This has not happened. Both the community and the agencies have exhausted their patience with the piecemeal nature, and at times technical inadequacy, of the facility’s RFI.

While it is true that the RFI Report could be postponed another 45 days to better allow PSC to incorporate and analyze important data, this argument has been used too many times in the past to extend the length of the RFI. And, while it is also true that PSC did not receive approval of its Risk Assessment Work Plan until April 16, 2001, it is also the case that PSC prolonged the approval of this document by submitting two inadequate drafts prior to the approved version, and changed authors of the document three times (in the process of moving from draft to final, approved) before submitting a satisfactory Work Plan.

EPA therefore, concluded that the due date for the draft Comprehensive RFI Report should be June 30, 2001. This gave PSC 30 additional days, and was deemed appropriate since: a) EPA’s review of PSC’s third Risk Assessment Work Plan was delayed at least two weeks, and b) EPA has asked PSC to design and implement interim measures.

PSC did submit a draft RFI Report on June 30, 2001. EPA is currently reviewing the draft RFI Report to ensure that the data and conclusions that are presented are accurate and complete.

Comment 71: Condition VII.K.1. of the draft modification gives the Permittee 5 days to respond to agency “comments, suggestions, proposals...” This is insufficient, especially for major documents. The period should be extended to 14 days.

Response 71: The Dispute Resolution process described in Section VII.K. proceeds as follows:

- the agencies identify the problem with a document;
- the agencies explain why the document must be changed;
- the agencies give PSC a date by which the facility must respond. This date can not be less than 30 days from the date PSC receives the agencies letter/comments.
- the agencies wait 5 days after PSC's response is due, and then if no response is submitted, finalize the document modification or disapproval.

PSC, therefore, is given 35 days to respond to agencies's letter/ comments before the agencies finalize the modification/ disapproval. EPA believes this is sufficient time for PSC to respond, and has not changed the permit modification as suggested.

Comment 72: Item "4" in Table VII-1 of the draft permit modification should have a RCRA Facility Investigation (RFI) Report due date which is "90 days following receipt of the data" collected the week of March 19, 2001, collected pursuant to proposals in Technical Memorandum V (of the Supplemental Off-site Characterization RFI effort), and collected as part of the groundwater use survey (which ended on March 31, 2001).

Response 72: EPA has changed the due date for the draft RFI Report from June 1, 2001 to June 30, 2001. PSC has since submitted the draft RFI Report prior to the June 30, 2001 due date, and the report is currently undergoing EPA review.

Comment 73: Item "13" in Table VII-1 of the draft modification would be improved by adding "Within 60 days" before the sentence "Following the Administrator's...Study."

Response 73: Draft item 13 (now item 11) is not a requirement that must be met by the Permittee. It is included in Table VII-1 so that it is clear to the reader that the schedule assumes this modification is agency-initiated, and that public comment will be solicited at this time. EPA has not accepted the commenter's suggestion because to do so would be to limit the amount of time the agencies have prior to beginning the permit modification process.

Comment 74: Item "14" in Table VII-1 of the draft modification would be improved by adding "pursuant to VII.D.3. after "Per the date...Final Permit Modification...". "See Item #13)" should be deleted.

Response 74: In the final permit modification EPA has modified this sentence to: "Per the date...Final Permit Modification, as required by VII.D.3." This is located at item 12 of Table VII-1.

Comment 75: Item "16" in Table VII-1 of the draft modification would be improved by adding "or no later than 180 days following the effective date of the permit modification (Item #13), whichever is sooner" after "Within 45 days...Scope of Work,..."

"PSC must have approval of the agency prior to moving forward with the project."

Response 75: This appears to be the same language EPA placed into the draft modification, and is the language contained in the final permit modification.

Comment 76: In Section VII.D.7. of the draft modification it is unclear how much time Philip is being given to complete remedial design and action plans.

Response 76: Timeframes for completion and submittal of design and implementation plans are spelled out in Table VII-1 of the permit modification. These dates are triggered by the Administrator's approval of the final CMS Report which is documented by a permit modification and subject to public comment. The final CMS Report is the report that proposes the Corrective Measure. Final cleanup standards and points of compliance will also be proposed in this permit modification.

In addition, PSC is being required to implement an interim measure. Timeframes for submittals of work plans and implementation of the interim measure are spelled out in permit conditions VII.C.1., VII.C.2. and VII.C.3.

XV Financial Assurance for Corrective Action

Comment 77: Draft modification requirement VII.A.4.a(15) should be deleted. Cost estimates for remedial design and implementation at this point in the process "will have no factual basis" and the CMS will be completed relatively quickly after the RFI is finalized.

Response 77: Requirement VII.A.4.a(15) was incorporated in permit condition VII.J. which contains the requirements for PSC to provide financial assurance that the corrective actions will be completed. EPA believes that it is necessary and appropriate for PSC to provide cost estimates at this time. As the RFI has been nearly completed, sufficient information regarding the nature and extent of contamination is available to enable PSC to estimate the costs of completing a cleanup. Under section 3004(u) of RCRA, permits must require financial assurance for the completion of Corrective Action.

Comment 78: In Section VII.J.1. of the draft modification EPA requires PSC to estimate remedial costs prior to conducting a CMS. This "has little merit." The commenter suggested that condition VII.J.1. be deleted.

Response 78: See response to comment number 77.

Comment 79: Philip may not have "adequate financial capability to clean up the site and to close the facility." Though we (the commenters) agree with EPA's requiring the facility to "estimate the cost of closure at multiple stages in the process..." and to fund these estimates according to "RCRA mandated mechanisms," it must be acknowledged that Philip Services has recently filed for and emerged from Chapter 11 bankruptcy.

Response 79: Section VII.J. of the permit was modified to more clearly specify when cost estimates and documentation of financial assurance for completion of corrective action must be provided. Failure

to maintain such financial assurance will constitute a violation of the permit, and could subject PSC to enforcement actions.

Comment 80: EPA should require PSC to “bear the costs of installation and long-term compliance monitoring” and to provide the commenter with copies of monitoring reports submitted to EPA.

Response 80: PSC is financially responsible for monitoring costs associated with Corrective Action at their Georgetown facility. To ensure that this is the case, the permit requires financial assurance (section VII.J).

EPA agrees that final PSC documents, including any monitoring reports, should be made available. Section VII.A.8. of the permit requires that PSC place monitoring reports in the repository. Copies of monitoring reports that are not available in the repository can be requested from EPA by a request under the Freedom of Information Act.

XVI Construction Completion and Effectiveness of Corrective Measure

Comment 81: In Section VII.D.7. of the draft modification it is unclear how much time Philip is being given to complete remedial design and action plans.

Response 85: Timeframes for completion and submittal of design and implementation plans are spelled out in Table VII-1 of the permit modification. These dates are triggered by the Administrator’s approval of the final CMS Report which is documented by a permit modification and subject to public comment. The final CMS Report is the report that documents that proposes the Corrective Measure.

In addition, PSC is being required to implement an interim measure. Timeframes for submittals of work plans and implementation of the interim measure are spelled out in permit conditions VII.C.1., VII.C.2. and VII.C.3.

Comment 82: Though the commenters agree with EPA that a third party specialist should be required to certify the construction of the Corrective Measure, the required specialist should be further described as an independent registered professional engineer.

Response 82: EPA agrees that many Corrective Measures should be certified by an independent registered professional engineer. In some cases, however it may be more appropriate to have the corrective measure certified by a specialist with a different expertise such as a hydrogeologist (in the case of groundwater cleanups, for instance). Therefore, the final permit modification (at condition VII.D.9.) states that certifications shall be obtained from an independent registered professional engineer, unless PSC is granted prior agency approval for a certification by a specialist with a different expertise.

Comment 83: Draft modification condition VII.D.11. allows PSC to attempt to demonstrate the effectiveness of the Corrective Measure after 4 consecutive quarters of monitoring, and then

discontinue remedial measures if no further action is deemed necessary. This is a “walk away” scenario and “directly contrary to TSD requirements at 40 CFR 270.42.”

Response 83: The monitoring required by permit condition VII.D.11 is to demonstrate the effectiveness of a corrective measure. There are several options that PSC can take (as directed under permit condition VII.D.11) including compliance monitoring to assure continued attainment of cleanup levels. In addition to monitoring showing compliance with the clean up levels in the permit, the facility must demonstrate that it has met the remedial action objectives. PSC will not be released from corrective action obligations until the Agencies have determined that no further action is required and public comment has been solicited regarding that determination.

Comment 84: Draft condition VII.F.1. provides PSC a “walk away” scenario and minimal monitoring requirements. Significant contamination could be left in place and this permit condition does not adequately protect public health and safety.

Response 84: See the response to comment number 83. EPA disagrees that monitoring requirements will be “minimal”. Prior to implementation of the monitoring requirements corrective action will be conducted to ensure that any contamination left in place is not an endangerment to human health or the environment.

Groundwater monitoring as directed by permit condition VII.F.1 will be designed to look for contaminants of concern and compare the detected levels of these contaminants with concentrations that are protective of human health and the environment. Corrective action will be re-initiated as needed if concentrations of contaminants do not remain in compliance with the cleanup standards.

Comment 85: Draft condition VII.F.5. provides a “walk away” scenario for PSC that is not protective of public health and safety.

Response 85: EPA disagrees. Condition VII.F.5. sets out the conditions and actions necessary to terminate part or all of the active cleanup system. This condition states that a demonstration must be approved which shows that remedial action levels and objectives have been met, and will continue to be met over time without operation of the active system. In addition, this provision requires a permit modification, which will be subject to public comment.

XVII Miscellaneous Comments

Comment 86: The official name of the current Permittee is Philip Services Corporation (PSC), not Philip Services Corp., or Philip.

Response 86: Comment noted. The change was made to the permit. Thank you.

Comment 87: Language should be added to Section VII.A.1. of the permit stating that once this permit modification is finalized, the facility’s 1988 RCRA 3008(h) Order will be terminated.

Response 87: EPA will initiate action with PSC to retire the 1988 Order once the permit modification becomes effective. EPA will notify PSC of this action in writing, but has not included language in the final permit modification as suggested.

Comment 88: All references to “magnetic media” in Section VII of the permit (in particular, VII.B.1., E.4., and F.7.) should be changed to “electronic media.”

Response 88: This change has been made in the permit.

Comment 89: In Section VII.A.4.a(7) of the draft modification the second sentence should be changed to include “Safe Drinking Water Act” in front of the Maximum Contaminant levels.

Response 89: This change has been made.

Comment 90: In Section VII.A.4.a(14) of the draft modification we (the commenter) feel that the CMS Scope of Work Technical Memorandum should be submitted to the Administrator following the receipt of the Agency’s comments on the draft RFI Report.

Response 90: EPA agrees with the comment. New language is contained at Section VII.A.4.b. of the permit.

Comment 91: The operating record for Corrective Action should be kept at the Renton Corporate Office, not at the facility. Staff at the Renton office need access to these records, and there is insufficient space at the facility to store so many records. Condition VII.A.9. should be changed accordingly.

Response 91: EPA agrees that there are good reasons for keeping the Corrective Action operating record in Renton. However, agency inspectors must have access to the Record during *facility* inspections. Therefore, the permit condition was not changed.

Comment 92: Sections VII.C.5. and 6. of the draft modification describe the requirements for submittal of semi-annual progress reports and annual evaluations. It appears that the two reports could be put together to form a single yearly evaluation and progress report.

Response 92: EPA agrees that it is not necessary to submit both semi-annual reports and annual evaluations. However, the Agency does not agree that a single yearly report is adequate. Therefore, sections VII.C.5. and 6 in the final permit have been changed to require submittal of a progress report at six months and an annual evaluation at one year.

Comment 93: Section VII.C.4. of the draft permit modification should be changed so that in the first paragraph: *and* is deleted from between *Soil* and *Extraction*; “organic” is inserted between *volatile* and *hazardous*; and, *below the surface of the facility property* is replaced by “the vadose zone beneath the facility.”

The second paragraph of Section VII.C.4. should be modified to insert “a permit modification request, pursuant to the requirements in”: between *per* and *40 CFR 270 Subpart D*.

Response 93: EPA agrees with this comment. Section VII.C.4 requires PSC to continue operation of a soil vapor extraction system at the PSC facility in accordance with a previous 1993 interim measure work plan. EPA has changed the language in the second paragraph of Section VII.C.4. of the final modification to: “The July 2, 1993, Interim Measure..., or the Work Plan is modified through a permit modification processed in accordance with 40 CFR 270 Subpart D.”

Comment 94: Once Corrective Action is triggered all solid waste management units (SWMUs) must be addressed.

Response 94: EPA agrees with the comment. The permit requires corrective actions for all releases from the facility.

Comment 95: Though the commenter agrees with EPA’s requirements for additional reports and evaluations regarding cleanup progress, the permit modification should state that all submissions of reports and other work products are required to be certified (in accordance with 40 CFR 270.11(d)(1)).

Response 95: EPA agrees. Permit condition VII.A.13 has been placed into the final modification to require certification for all workplans, reports, and other submittals.