Washington State
Energy Facility Site Evaluation Council
AGENDA

MONTHLY MEETING
Tuesday, May 16, 2017
1:30 PM

1300 S Evergreen Park Drive SW
Olympia, WA 98504
Hearing Room 206

1. Call to Order ..... Bill Lynch, EFSEC Chair

2. Roll Call ..... Tammy Mastro, EFSEC Staff

3. Proposed Agenda ..... Bill Lynch, EFSEC Chair

4. Minutes **Meeting Minutes**..... Bill Lynch, EFSEC Chair

- April 18, 2017
- May 2, 2017 Special meeting

5. Projects

a. **Kittitas Valley Wind Project**

- Operational Update..... Eric Melbardis, EDP Renewables

b. **Wild Horse Wind Power Project**

- Operational Update..... Jennifer Diaz, Puget Sound Energy

c. **Columbia Generating Station**

- Operational Update..... Shannon Khounnala, Energy Northwest

d. **WNP – 1/4**

- Non-Operational Update..... Shannon Khounnala, Energy Northwest

e. **Chehalis Generation Facility**

- Operational Update..... Mark Miller, Chehalis Generation Staff

f. **Grays Harbor Energy Center**

- Operational Update..... Rich Downen, Grays Harbor Energy

g. **Tesoro/Savage Vancouver Energy Distribution Terminal**

- Project Update..... Sonia Bumpus, EFSEC Staff
- NPDES Industrial Stormwater Permit..... Sonia Bumpus, EFSEC Staff

The Council may consider and take **FINAL ACTION** *on issuing the Draft Industrial Stormwater Permit for public comment.*

6. Adjourn..... Bill Lynch, EFSEC Chair

Note: "**FINAL ACTION**" means a collective positive or negative decision, or an actual vote by a majority of the members of a governing body when sitting as a body or entity, upon a motion, proposal, resolution, order, or ordinance. RCW 42.30.02

Verbatim Transcript of Monthly Council Meeting

Washington State Energy Facility Site Evaluation Council

April 18, 2017

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WASHINGTON STATE
ENERGY FACILITY SITE EVALUATION COUNCIL
Richard Hemstad Building
1300 South Evergreen Park Drive Southwest
Conference Room 206
Olympia, Washington
April 18, 2017
1:30 p.m.

MONTHLY COUNCIL MEETING
Verbatim Transcript of Proceeding

REPORTED BY: ANITA W. SELF, RPR, CCR #3032

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APPEARANCES

Councilmembers Present:

Bill Lynch, Chair
Jaime Rossman, Department of Commerce
Joe Stohr, Department of Fish and Wildlife (via phone)
Dennis Moss, Utilities and Transportation Commission

Local Government and Optional State Agencies:

Larry Paulson, Port of Vancouver (via phone)
Ken Stone, Department of Transportation
Bryan Snodgrass, City of Vancouver (via phone)
Greg Shafer, Clark County (via phone)

Assistant Attorney General:

Ann Essko, Senior Counsel

Staff in Attendance:

Stephen Posner
Jim LaSpina
Tammy Mastro
Sonia Bumpus
Joan Aitken
Ami Kidder

Guests in Attendance:

Rich Downen, Grays Harbor Energy
Mark Goodin, Orcca
Shannon Khounnala, Columbia Generating & WNP 1/4

Guests in Attendance via Phone:

Kristen Boyles, Earthjustice
Karen McGaffey, Perkins Coie
Jennifer Diaz, Puget Sound Energy
Eric Melbardis, EDP Renewables
Tim McMahan, Stoel Rives
Kyler Danielson, Schwabe, Williamson & Wyatt

* * * * *

OLYMPIA, WASHINGTON, APRIL 18, 2017
1:30 P.M.
--o0o--

CHAIR LYNCH: Good afternoon. Today is Tuesday, April 18th, the April monthly meeting of the Energy Facility Site Evaluation Council.

Could we please have the clerk call the roll?

THE CLERK: Department of Commerce?

MR. ROSSMAN: Jaime Rossman is here.

THE CLERK: Department of Ecology?

CHAIR LYNCH: Mr. Stephenson is excused.

THE CLERK: Fish and Wildlife?

MR. STOHR (via phone): Joe Stohr is on the phone.

THE CLERK: Department of Natural Resources?

CHAIR LYNCH: Councilmember Siemann is excused.

THE CLERK: Utilities and Transportation Commission?

MR. MOSS: Dennis Moss is here.

THE CLERK: Local Governments and Optional State Agencies, for the Tesoro project, Department of Transportation?

MR. STONE: Ken Stone is here.

THE CLERK: City of Vancouver?

MR. SNODGRASS (via phone): Brian Snodgrass is on the phone.

THE CLERK: Clark County?

Port of Vancouver?

MR. PAULSON (via phone): Larry Paulson's on the phone.

THE CLERK: Chair, there is a quorum for the regular Council and Tesoro project Council.

CHAIR LYNCH: Thank you.

And if we have people on the phone who wish to identify themselves at this time, though you're not required to do so, please go ahead. And then I think I'll hold off on having those people who represent our various facilities having to -- because you'll be speaking later, you don't need to identify yourself at this time.

MS. MCGAFFEY (via phone): Jennifer McGaffey from Perkins Coie.

MR. MCMAHAN (via phone): Tim McMahan, Stoel Rives.

MS. DANIELSON (via phone): Kyler Danielson, Schwabe, Williamson & Wyatt.

MS. BOYLES (via phone): Kristen Boyles,

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Earthjustice.
CHAIR LYNCH: Anybody else? Okay.
I'm going to have the councilmembers take a look at the proposed agenda for today. And you'll see that we do have one action item that we bumped from last month to this month's meeting. This has to do with the NOC for the Grays Harbor Energy Center installing a new drift eliminator. And that's the only action item that we'll be taking today.
Are there any suggested changes to the proposed agenda? Hearing none, we'll move on.
And we need approval of the March 21, 2017, minutes. And I looked them over, and I didn't see any edits, but I'll ask councilmembers if they have any suggested changes at this time. And if not, I'd entertain a motion for their approval.
MR. MOSS: Chair Lynch, I'd move the adoption of the minutes as transcribed for the meeting of March 21st, 2017.
CHAIR LYNCH: Do we have a second?
MR. ROSSMAN: I'll second.
CHAIR LYNCH: It's been moved and seconded that the Council minutes from the March 21st meeting be approved. All those in favor, say "Aye."
MULTIPLE SPEAKERS: "Aye."

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CHAIR LYNCH: Opposed? Motion carries.
Now, if we could just move ahead to the updates from our various facilities. And we'll start first with Mr. Melbardis of the Kittitas Valley Wind Project.
MR. MELBARDIS (via phone): Good afternoon, Chair Lynch, EFSEC Council. This is Eric Melbardis with EDP Renewables for the Kittitas Valley Wind Power Project.
For the reporting period, there was nothing nonroutine to report.
CHAIR LYNCH: I'm just taking a quick look at your handout, Mr. Melbardis, and no complaints, no complaints, no incidents, we like that.
Any questions for Mr. Melbardis? Thank you.
Let's go ahead and turn to Ms. Diaz with Puget Sound Energy and the Wild Horse Wind Power Project update.
MS. DIAZ (via phone): Yes. Thank you, Chair Lynch and Councilmembers. For the record, my name is Jennifer Diaz. I'm the project manager for Puget Sound Energy at the Wild Horse Wind and Solar Facility.
And I have one nonroutine update for the month of March. Pursuant to the Operations Stormwater Pollution Prevention Plan, a stormwater inspection was

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completed following spring snow melt --
CHAIR LYNCH: I'm sorry, Ms. -- excuse me, Ms. Khounnala [sic], I'm going to have to stop you and have you repeat that because you're a little too soft.
MS. DIAZ: I'm going to take off my headset and maybe that will help.
CHAIR LYNCH: That will probably help.
MS. DIAZ: Okay. Can you hear me now?
CHAIR LYNCH: Yes.
MS. DIAZ: Is that better?
CHAIR LYNCH: Yes.
MS. DIAZ: Okay. So I just have the one nonroutine update for March. Pursuant to the Operations Stormwater Pollution Prevention Plan, a stormwater inspection was completed following spring snow melt.
The site responded very well to the warming and melting conditions, which is a direct result of implementing an aggressive snow removal program during the winter, combined with the establishment of native grasses and vegetation over time.
Stormwater BMPs functioned as intended, and the site remains in compliance with the site certification agreement. And that's all I have.
CHAIR LYNCH: Very good.
Any questions for Ms. Diaz? No questions

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for Ms. Diaz. Thank you very much.
MS. DIAZ: Thank you.
CHAIR LYNCH: Now we'll turn next to Ms. Khounnala with Energy Northwest. Welcome.
MS. KHOUNNALA: Thank you. Now, last time I was here, there was quite the learning curve with this microphone. There we go. So thank you.
Good afternoon, Chair Lynch and the rest of the Council. It's a pleasure to be here today. It's been a little over a year since we've attended in person.
So beginning our operational update, starting with Columbia Generating Station, you'll notice in your packets that Columbia is operating in a reduced power state. There's two contributing factors to this; one, we're in our coastdown in preparation for our outage; additionally, we also have been working with BPA on power management and some planned down-powers due to high flows in the Columbia River.
So both of these contributing factors are contributing to our reduced power operations at this time. We expect that we will have to continue to work with BPA on helping them manage the flows of the Columbia River as we also prepare for our outage.
You'll also see that we provided a mount- --

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an outage update status. That does begin in 24 days, and it's scheduled for a duration of 40 days.

A couple of key points on that outage. We do plan to do some significant work on some cleaning as well as utilizing some newly installed equipment that will help us capture some additional power up-rate, in addition to the ongoing maintenance of a variety of facilities and refueling our reactor.

At the time that I prepared the operational update, I sent that before I had an opportunity to include an update on our radwaste shipping status. You may have seen that there were a couple of items in the paper documenting our radwaste shipping practices, and we did receive what I would call a conditional reinstatement of that ability to ship low-level radwaste to US Ecology. That provisional reinstatement was received Thursday of last week, so we will begin to put into place a couple of those conditions that they have in that -- in that approval, and prepare for our continued shipment to US Ecology.

Outside of those, there are no other safety incidents or other events to report for Columbia.

Any questions?

CHAIR LYNCH: Any questions for Ms. Khounnala regarding Columbia Generating Station? No

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questions.

Please proceed to WNP --

MS. KHOUNNALA: -- 1/4, yes.

In regard to WNP 1/4, we have completed all of the NEPA and federal reviews needed by the Department of Energy. With that completion that happened here in the January/February timeframe, it allowed us to finalize the lease that we have with the Department of Energy. We expect that that lease will be signed at the end of this month or beginning of May.

That lease will be effective as of July 2017. And once we're in an operating -- or in our new approved lease status, we will then put into practice the methods and some of the infrastructure needed to capitalize on the water rights that were provided by -- and approved by the Department of Ecology back in 2014, I believe. So that will begin after the July timeframe.

Any questions in regard to WNP 1/4?

CHAIR LYNCH: Any questions for Ms. Khounnala, WNP 1/4? No questions.

MS. KHOUNNALA: Okay.

CHAIR LYNCH: Thank you. Always good to see you.

MS. KHOUNNALA: Thank you. Thank you for having us.

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CHAIR LYNCH: Yes, thanks.

And Mr. Miller is not here today for the -- to give us an update about the Chehalis Generation Facility, but as you can see by their report, they have nothing to report.

Oh, and here we have Mr. Downen from the Grays Harbor Energy Center.

MR. DOWNEN: Good afternoon, Chair Lynch, Councilmembers. My name is Rich Downen. I'm the acting plant manager at Grays Harbor Energy.

To cover our monthly report, there are only two things that, I guess, these days they're -- one of them has become pretty normal, is the cooling tower work. That work is just about complete. I'd say all of the wood is now out of the tower, so it's just finishing up some of the -- some of the reinstall of wind walls and putting in some bracing in the cooling tower basin. So that -- that work will be done this month. I think next week we'll be doing a walk down with the contractor to just look at punch list items.

And then at the bottom of our sheet, item 6.2, is the plant is shut down this month. We're about halfway through our annual spring outage. This year it's a full month rather than the typical two weeks. A

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lot of work on the -- on finishing up the cooling tower, and then a steam turbine minor inspection.

And we wound up needing to replace the steam turbine generator field. That's the rotary part of the generator. So we just had some vibrations in there that we had to pull the field and put in a new one, so it's a big job. I think that's it for my report.

CHAIR LYNCH: Any questions for Mr. Downen regarding the operational update report for the Grays Harbor facility? No questions. Thank you.

And at this point in time, I guess I'll just turn it over to Mr. LaSpina who can talk to the Council about the Notice of Construction Air Permit. He's got some materials for you, and we also have the permit writer available with us here today.

Mr. LaSpina?

MR. LASPINA: Thank you, Chair Lynch, good afternoon. And good afternoon, Councilmembers.

EFSEC staff requests your approval to issue a Notice of Construction permit to Grays Harbor Energy for its replacement of the cooling tower drift eliminators. I'll give you just a little bit of background, sort of an abridged memo that I believe you all received.

During an early phase of construction to

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replace the drift -- to replace the cooling tower wood, the contractors determined that an important air pollution control device, the drift eliminators, needed to be replaced due to degradation. Drift eliminators are the primary component in cooling towers used to prevent emissions of water vapor and air pollutants such as particulate matter, VOCs and chlorine compounds.

The replacement of the drift eliminators, which were not originally required, prompted the need for an NOC permit. Based on the recommendations of the Olympic Region Clean Air Agency, which is EFSEC's compliance contractor, and the Department of Ecology, and with concurrence from the attorney general's office, an NOC permit application and SEPA checklist were submitted to EFSEC.

Based on ORCAA's assessment that the performance of the replacement drift eliminators will be more protective of the environment than the existing equipment, a SEPA Determination of Nonsignificance was issued on February 28th, 2017.

Information from the NOC application was used by ORCAA to draft the NOC, which has been developed in compliance with appropriate regulations. EFSEC staff, therefore, recommends the Council approve issuance of the NOC.

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And to answer any questions you may have, the Clean Air Agency permit writer, Mark Goodin, is sitting here, and so if you want to ask any questions, he's available.

CHAIR LYNCH: I think we'll have Mr. Goodin -- why don't we just have you come up and sit next to Mr. Downen up here. You can pull up another chair.

And there might be some questions regarding the NOC. So I'll ask, are there any Council questions at this time?

Yes, Councilmember Rossman?

MR. ROSSMAN: Yes, thank you. And I'm sorry. Your name again, sir?

MR. GOODIN: Good afternoon. My name is Mark Goodin.

MR. ROSSMAN: Mr. Goodin, thank you for joining us.

I have a question, and I had talked with Mr. LaSpina before the meeting, and I'm trying to understand the relationship between the drift loss rate and the total emission limit of PM10 in this NOC.

Can you tell me how those two are related?

MR. GOODIN: Well, the drift loss rate is one of the variables in the equation used to compute the

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overall mass rate. So the drift loss rate is the -- essentially the efficiency of the drift eliminators.

And one of the requirements, under the Washington Clean Air Act, is that any new construction utilize what's referred to as best available control technology. Well, over the ten years or so since the original cooling tower was installed, the efficiency of drift eliminators that are suitable for this cooling tower have improved, and that's why EFSEC came in the door with an application for higher efficiency drift eliminators, and that meets the requirement for best available control technology, or BACT, and that's what we require.

Though the drift elimination efficiency is related to pollutant mass rate, we didn't see a need, and we didn't recommend to EFSEC staff to change the pollutant mass rate because there was no regulatory basis via the Clean Air Act to do so, because the overall pollutant mass rate has already been modeled and already shown to meet -- to not cause or contribute to ambient violations.

So we did not touch the pollutant mass rate, or we recommended EFSEC staff not change that condition, but we did update the drift elimination efficiency in condition 3, I believe.

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MR. ROSSMAN: And so the pollutant mass rate, is that that 4,062 kilograms of -- is that the 4,662 kilograms of PM10?

MR. GOODIN: Yes. That's the annual mass rate, and that's determined by the equation in condition 3.

MR. ROSSMAN: And where have actuals been -- do you know off the top of your head what the actual levels have been?

MR. GOODIN: I don't.

MR. ROSSMAN: All right.

So we would expect to see a reduction in that, all things being equal; is that the case?

MR. GOODIN: Yes. There's going to be less emissions from the cooling tower, yet, you know, the amount of particulate matter or emissions is going to be dependent also on the dissolved solids and the solids in the water and the flow rate. So there's other variables in that equation. They are variables and they're not -- they're not explicitly limited.

What was of main concern here, and what -- an authority under the Clean Air Act is that you continuously keep up with the latest, greatest technology, and that's the requirement referred to as best available control technology.

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MR. ROSSMAN: I guess that's what I'm wondering about, because it would have intuitively seemed that the total emissions would also be reduced by that factor of 50 percent synthesis, 50 percent more efficient.

And I guess, is there any concern that that would allow a higher concentration of dissolved solids, or a higher flow rate, or any unintended consequences of keeping that limit the same.

MR. GOODIN: No, no unintended consequences. Emissions will be reduced, with all other things stable, meaning the dissolved solids in the water and the flow rate through the cooling tower remain stable, but that's not the case. Those are variables in that equation in condition 3. They're intended as variables, and there was no need through the permit to place limits on those variables.

So for this permitting action, the concern was that Grays Harbor Energy install the most state-of-the-art, most efficient drift eliminators, which they came in the door with that proposal, and that's what rolls down there in condition 2. And that was basically the only change to the set of conditions that were established originally in the PSD permit.

MR. ROSSMAN: Got it. Thank you.

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CHAIR LYNCH: Any other questions?

At this point in time, I'd entertain a motion for the Council -- for the core Council, I guess I'll call it, to vote on the Notice of Construction Air Permit as submitted.

MR. ROSSMAN: Mr. Chair, I'll move that we approve the Notice of Construction as submitted.

CHAIR LYNCH: Do we have a second?

MR. MOSS: I'll second that.

CHAIR LYNCH: It's been moved and seconded that the NOC Air Permit be approved by the Council as submitted.

All those in favor, say "Aye."

MULTIPLE SPEAKERS: "Aye."

CHAIR LYNCH: Opposed? Motion carries. Very good.

And let's see. And would all councilmembers who believe in telekinetics please raise my right hand? Sorry. That's a shout out to Kurt Vonnegut who -- the anniversary of his death was not too long ago, and I read that in the newspaper as one of his great quotes. And that's always a good reason why we should continue to read newspapers, I think.

So if we could turn, then, to the Tesoro/Savage Vancouver Energy Distribution Terminal

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update.

Thank you for coming.

MR. GOODIN: Thank you. Good afternoon.

MS. BUMPUS: Good afternoon, Chair Lynch and Councilmembers.

Just a couple of updates for SEPA. Work to address the issues identified in the Draft FEIS are underway. EFSEC staff are coordinating closely with our consultants, and each week we are having regularly scheduled calls to track our progress with them.

Myself, Ms. Kidder and Patty Betts are meeting as a group multiple days each week where we're having work sessions to focus on these issues as a team and tackle the issues in discussion. We're planning several more of these as we receive deliverables from the consultant and review the sections.

I'm going to now give you an update on permits if there aren't any questions on the SEPA update.

CHAIR LYNCH: Any questions on the SEPA update? Please proceed.

MS. BUMPUS: For the Construction Stormwater NPDES permit, I don't have any new updates since last council meeting. We're still working with our contractors to address comments.

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For the NPDES Industrial Stormwater Permit, EFSEC staff have received draft permit documents from our Ecology contractor, and we're currently working on those and preparing those for a comprehensive legal review. So that will be happening soon. We're working on them and hope to finish them this week.

For the Notice of Construction, this week I'm working to prepare the draft documents to get them ready to send to the councilmembers this Friday.

I did want to note that the Southwest Clean Air Agency permit contractor had some additional questions. They're more points of clarification and getting confirmation from the applicant about some things, so we've sent that request on to the applicant, and Jared and I spoke just before the meeting, and it sounds like they're planning to submit that to us today by the end of the day.

CHAIR LYNCH: Good.

MS. BUMPUS: So that will be forwarded on to the SWCAA contractor to review.

And I think -- I just wanted to note that we're planning to have an executive session and special council meeting on May 2nd, and that's just given that we get the permit to councilmembers to review by this Friday and that all goes as scheduled.

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So I think you received an email letting you know about that tentative date. And we would, I think, at this time plan to ask for a tentative approval for the NOC if all goes well there.

CHAIR LYNCH: And that meeting would most likely be starting early afternoon right after lunchtime?

MS. BUMPUS: I think that's right. Based off room availability, I think we're starting at 1:00 or so.

Is that correct, Stephen?

MR. POSNER: Yes.

MS. BUMPUS: Yeah, 1:00.

CHAIR LYNCH: And the -- does it still look like we would be able to do that Industrial Stormwater Permit around the same time -- or excuse me -- I'm stuck between construction stormwater and industrial stormwater, but the --

MS. BUMPUS: I think I know what you're asking --

CHAIR LYNCH: Yeah.

MS. BUMPUS: -- Chair Lynch.

The NPDES Industrial Permit needs to undergo the final legal review. If there aren't any major issues that come up as part of that review, it's

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possible that we could do them at the same time or very close to that time. And I'd still like to try to do that. I'm just not able to say for sure until Phyllis reviews the draft document, and I haven't sent it to her yet as of today, so --

CHAIR LYNCH: Okay.

MS. BUMPUS: So we'll try to do that. We'll have to see. We're not sure yet.

CHAIR LYNCH: I'm very pleased that we're getting there on both of those permits. It's good work by all of you. Thank you.

MS. BUMPUS: Thank you.

CHAIR LYNCH: Any questions regarding the permits?

Ms. Bumpus, do you have anything else?

MS. BUMPUS: That's all I have.

CHAIR LYNCH: Any questions regarding the Tesoro/Savage Vancouver Energy Distribution Terminal for Ms. Bumpus? Okay. We'll move on.

And this is always the most exciting part of our council meetings when Mr. Posner goes over the quarterly cost allocations.

Mr. Posner?

MR. POSNER: Good afternoon, Chair Lynch, Councilmembers. And as we do every quarter at the

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beginning of the quarter, we do a recalculation of our non-direct costs and cost allocation. And there's a green sheet in your councilmember packets, and it has a breakdown of the numbers for the fourth quarter, which will run from April 1st through June 30th of this year.

I'll go ahead and read the breakdown for the benefit of those folks who are on the phone. For the Kittitas Valley Wind Project, the percentage is 6 percent; for Wild Horse, it's 8 percent; Columbia Generating Station, 18 percent; WNP 1/4, 3 percent; Whistling Ridge Energy Project, 3 percent; Grays Harbor 1 and 2, 9 percent; Chehalis Generation, 9 percent; desert Claim, 3 percent; Grays Harbor Energy 3 and 4, 3 percent; and Tesoro/Savage, 38 percent.

And that's all I have on that subject. If there's any questions, I'll be happy to answer them.

CHAIR LYNCH: Any questions for Mr. Posner?

Anything for the good of the order?

MR. SHAFER (via phone): Chair Lynch, Greg Shafer. And I apologize for my five-minute tardiness, but I was able to join the agenda by phone today.

CHAIR LYNCH: Thank you, Mr. Shafer. We know that you are very attentive to council business, so we appreciate you being on the line again.

MR. SHAFER: Just running from another

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meeting.

CHAIR LYNCH: Anything else for the good of the order? Hearing none, we're adjourned.

(Meeting concluded at 1:59 p.m.)

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CERTIFICATE

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I, ANITA W. SELF, a Certified Shorthand Reporter in and for the State of Washington, do hereby certify that the foregoing transcript is true and accurate to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 28th day of April, 2017.

_____

ANITA W. SELF, RPR, CCR #3032

Verbatim Transcript of Special Council Meeting

Washington State Energy Facility Site Evaluation Council

May 2, 2017

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WASHINGTON STATE
ENERGY FACILITY SITE EVALUATION COUNCIL
Richard Hemstad Building
1300 South Evergreen Park Drive Southwest
Conference Room 139
Olympia, Washington
May 2, 2017
2:35 P.M.

SPECIAL COUNCIL MEETING REGARDING
TESORO/SAVAGE VANCOUVER ENERGY DISTRIBUTION TERMINAL - CONSTRUCTION AIR PERMIT
Verbatim Transcript of Proceedings

REPORTED BY: TAYLER RUSSELL, CCR #3358

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APPEARANCES

Councilmembers present:

Bill Lynch, Chair
Jaime Rossman, Department of Commerce (via phone)
Cullen Stephenson, Department of Ecology
Joe Stohr, Department of Fish & Wildlife
Dan Siemann, Department of Natural Resources (via phone)
Dennis Moss, Utilities and Transportation Commission

Local Government and Optional State Agency:

Bryan Snodgrass, City of Vancouver
Greg Shafer, Clark County (via phone)

Assistant Attorney General:

Ann Essko

Council Staff:

Stephen Posner
Tammy Mastro
Sonia Bumpus
Joan Aitken
Ami Kidder

Also present:

Wes Safford, Southwest Clean Air Agency
Kay Shirey Ago
Jared Larabee, Tesoro

OLYMPIA, WASHINGTON; MAY 2, 2017
2:35 P.M.
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PROCEEDINGS

CHAIRMAN LYNCH: Okay. We're back on the record. We are through with our executive session, so this is a continuation of the special meeting for the purpose of issuing the -- the notice of Construction Air Permit.

At this point in time, I think I will call on Ms. Bumpus to give us a quick overview of where we are.

MR. POSNER: We're just wondering, we're missing a couple Councilmembers. Have they been excused or...

CHAIRMAN LYNCH: Just for purposes of the record, Councilmember Stephenson is here and -- but Councilmember Stone and Councilmember Paulson had to leave, but you might remember Councilmember Paulson doesn't actually vote anyway. So we're switching one member in for another, then. We still have a majority of the Council to take action.

And so, Ms. Bumpus.

MS. BUMPUS: Yeah, thank you, Chair Lynch.

Good afternoon, Councilmembers. As you know, EFSEC Staff has been coordinating with the applicant and our air permit engineer at Southwest Clean Air Agency to prepare a permit for the application for site certification submitted by Tesoro/Savage for the Vancouver Energy Distribution Terminal project.

We've worked closely the last couple of weeks to address some issues that have come up. Based off some legal review and internal Staff review, we prepared a draft permit which included the permit itself, the technical support documents, and a testing protocol for marine vapor combustion capture and that -- those drafts were sent to Council by email April 21st for your review.

At this time, EFSEC Staff would like to request the Council make a preliminary determination to approve the permit contingent upon the following changes being made, and I will go ahead and itemize those changes.

CHAIRMAN LYNCH: If you could itemize the changes for both the permit and the technical support document, please.

MS. BUMPUS: Yes, I will. So starting with the technical support document for Section 10 of the

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technical support document, we are going to add some language to cite the TCEQ guidance, which would explain the 99.89 percent presumption used for the capture efficiency rate that is identified now in the permit.

For Section 7, we're going to add some generic reference that would acknowledge EFSEC's adoption of Ecology rules that are already listed in the permit -- or sorry, they're in the technical support document, listed in the technical support document now. So this will be a reference to EFSEC's adoption pursuant to 463.78.005 WAC.

And then for Section 14(A) of the technical support document, there's a typo that needs to be corrected there at the end of 14(A).

For the permit, Section 2.2, we're going to add some language to require 40 CFR Part 60, quad I compliant engines.

And then also Section 2.2, we're going to add a prohibitory limit for storing oil that's going to be in the heated tanks that is in the proposal now.

So those are a summary of the changes that we would make prior to putting this -- these documents out for public comment.

CHAIRMAN LYNCH: And I would echo the support of the Staff in making these changes even though

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we are not adopting the permit, it's not a final approval today. We're just putting this out for public notice. It will make it easier for the public to understand what some of these changes are.

Ms. Bumpus, do you have anything else?

MS. BUMPUS: That's all I have.

CHAIRMAN LYNCH: And do you want to introduce Wes?

MS. BUMPUS: Yes, this is Wes Safford from the Southwest Clean Air Agency, and I should -- actually I should add that if there are any questions from the Councilmembers, Wes is here to answer any technical questions you have about these documents.

CHAIRMAN LYNCH: And he's been working closely with you and the applicant all along?

MS. BUMPUS: Correct.

CHAIRMAN LYNCH: Do we have any questions for Mr. Safford or Ms. Bumpus?

MR. ROSSMAN: Yes, Chair Lynch. This is Councilmember Rossman.

I have a question. I just want to clarify that I'm understanding that the 99.89 percent capture efficiency rate, that's based on a guidance document from Texas but was recently released in September and that's the citation you're going to add to part 10 of

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the technical document?

MR. SAFFORD: That is correct. We plan on adding a paragraph or two to that section to explain the migra -- a general summary of some of the applicable capture efficiency estimates and then explain how the determination came to use the Texas CEQ guidelines.

CHAIRMAN LYNCH: And these materials were actually submitted as part of the package for the permit, but we -- we just think it would be easier for people to understand what the source is for this information if we include this information as opposed to just relying on the record itself.

Any questions from Councilmembers? Councilmember Stephenson.

MR. STEPHENSON: Thank you, Chair Lynch.

Wes, scheduling snafu so I wasn't able to be in the executive session. Are you okay -- I just want to hear from -- because I've heard Ecology, engineer there is okay with the permit. I want to hear that you're good with the changes that have been made to both the permit and the technical support document.

MR. SAFFORD: Yes, I have been working with Ms. Bumpus on most of those items and also working with Ms. Shirey on the legal review.

MR. STEPHENSON: Thank you.

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CHAIRMAN LYNCH: I think it's fair to characterize almost all those changes as clarifications.

Any other Councilmembers questions or comments?

At this point in time, I would entertain a motion that the coun -- that the Council authorize the Staff to notice this permit on the condition that they make those modifications to the permit and technical support document.

MR. MOSS: So moved.

CHAIRMAN LYNCH: Do we have a second?

MR. STEPHENSON: I will second.

CHAIRMAN LYNCH: It's been moved and seconded that the Staff issued the notice, this -- notice of construction permit for the Tesoro/Savage Marine Terminal. Contingent upon those modifications being made to the permit and technical support document, all those in favor say "aye."

COUNCILMEMBERS: Aye.

CHAIRMAN LYNCH: Opposed? Motion carries.

And is there any other business in front of us today? I don't believe so.

MR. ROSSMAN: Speaking for opposed to judgments at issuing for public comment.

CHAIRMAN LYNCH: Yes, this was not final

adoption today. This was just for the -- to send it out for public comment.

MR. ROSSMAN: Great. Thank you.

CHAIRMAN LYNCH: Thank you.

And with that, we are adjourned. Thank you.

(Adjourned at 2:43 p.m.)

CERTIFICATE

STATE OF WASHINGTON
COUNTY OF THURSTON

I, Tayler Russell, a Certified Shorthand Reporter in and for the State of Washington, do hereby certify that the foregoing transcript is true and accurate to the best of my knowledge, skill and ability.

Tayler Russell, CCR 3358

Kittitas Valley Wind Power Project
Monthly Project Update

May 16, 2017

Project Status Update

April Production Summary:

Power generated:	17,621 MWh
Wind speed:	6.8 m/s
Capacity Factor:	24.3%

Safety:
No incidents

Compliance:
Project is in compliance as of May 11, 2017

Sound:
No complaints

Shadow Flicker:
No complaints

Environmental:
No incidents

Wild Horse

Safety

No lost-time accidents or safety injuries/illnesses to report for April.

Compliance/Environmental

Nothing to report.

Operations/Maintenance

At the request of EFSEC staff, PSE sent a letter to staff on April 21st listing all operational plans required by the SCA. All operational plans are reviewed annually by PSE and updated, as needed. These plans will be shared with, and reviewed by, EFSEC staff during the next compliance inspection scheduled on May 31st.

Wind Production

April wind generation totaled 77,081 MWh for an average capacity factor of 39.27%.

Energy Northwest
EFSEC Council Meeting
May 16, 2017
Shannon Khounnala

I. Columbia Generating Station Operational Status

Columbia is offline for the 2017 refueling outage. The plant has been offline for 4 days. The outage is expected to last through June 16, 2017.

There are no other events, safety incidents, or regulatory issues to report.

II. WNP 1/4 Water Rights

NEPA/Leasing

Energy Northwest has finalized and signed lease agreement with the Department of Energy. Under the new lease Energy Northwest will organize funding strategies to begin work on the water distribution system, which will eventually utilize the Water Rights permit granted by the Department of Ecology.

PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

Chehalis Generation Facility
1813 Bishop Road
Chehalis, Washington 98532
Phone: 360-748-1300

Chehalis Generation Facility----Monthly Plant Report – April 2017
Washington Energy Facility Site Evaluation Council

05-16-2017

Safety:

- There were no recordable incidents this reporting period and the plant staff has achieved 641 days without a Lost Time Accident.

Environment:

- There were no air emissions or stormwater deviations or spills during the month of April 2017.
- Wastewater and Stormwater monitoring results were in compliance with the permit limits for the month of April 2017.

Personnel:

- The Chehalis plant staffing level is currently 19 of 19 approved positions filled.

Operations and Maintenance Activities:

- The Plant generated 92,291 MW-hours in April for a 2017 YTD generation total of 415,881 MW-hours and a capacity factor of 26.3%.

Regulatory/Compliance:

- The Washington State Department of Labor and Industries conducted the annual inspection of the heat recovery steam generators and other pressure vessels. All inspection results were found to be in compliance and the annual permits were renewed.

Sound monitoring:

- There were no noise complaints to report.

PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

Carbon Offset Mitigation:

- No update to provide this reporting period.

Respectfully,

Mark A. Miller
Manager, Gas Plant
Chehalis Generation Facility

EFSEC Monthly Operational Report

April, 2017

1. Safety and Training

   1.1. There were no accidents or injuries during the month of April.
   1.2. Conducted scheduled and required monthly training.
   1.3. Conducted the scheduled safety committee meeting.

2. Environmental

   2.1. Submitted the March Outfall Discharge Monitor Report (DMR) to Ecology.
   2.2. Submitted the Quarterly Emissions Summary to EFSEC, EPA, and ORCAA.
   2.3. An April 5 storm water test measured 32 NTU. As this exceeded our 25 NTU benchmark, a site inspection was completed that led to a variety of corrective actions in the East yard. This included the addition of 60 yards of 1" washed gravel to its highest traffic areas and improvements to the local swale.
   2.4. The structural lumber in all 9 cooling tower cells has been replaced with fiber reinforced plastic (FRP). A temporary Adler tank was used to store the basin and sump waste from cleaning operations via a contract with Certified Cleaning Services (awaiting waste characterization for proper disposal).

3. Operations & Maintenance

   3.1. Grays Harbor Energy (GHE) operated 0 days and generated 0 MWh during the month of April due to a month long maintenance outage.

4. Noise and/or Odor

   4.1. There were no complaints made to the site during the month of April.

5. Site Visits

   5.1. There were no site visits during the month of April.

6. Other

   6.1. Grays Harbor is staffed with 21 personnel.

Fact Sheet for NPDES Permit WA0XXXXXX

Vancouver Energy Distribution Terminal

May 17, 2017?

Purpose of this fact sheet

This fact sheet explains and documents the decisions the Washington State Energy Facility Site Evaluation Council (EFSEC) made in drafting the proposed National Pollutant Discharge Elimination System (NPDES) permit for the Tesoro Savage Vancouver Energy Distribution Terminal.

This fact sheet complies with Section 463-76-034 of the Washington Administrative Code (WAC), which requires EFSEC to prepare a draft permit and accompanying fact sheet for public evaluation before issuing an NPDES permit.

EFSEC makes the draft permit and fact sheet available for public review and comment at least thirty (30) days before issuing the final permit. Copies of the fact sheet and draft permit for Vancouver Energy Terminal, NPDES permit WAXXXXX , are available for public review and comment from May XX, XXXX until June XX, XXXX. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement Information**.

After the public comment period closes, EFSEC will summarize substantive comments and provide responses to them. EFSEC will include the summary and responses to comments in this fact sheet as **Appendix E - Response to Comments**, and publish it when issuing the final NPDES permit. EFSEC generally will not revise the rest of the fact sheet. The full document will become part of the legal history contained in the facility's permit file.

Summary

Vancouver Energy is proposing to build an Energy Distribution Terminal Facility at the Port of Vancouver in Vancouver, WA. The primary operations of the proposed Terminal include receiving and offloading crude oil by rail, storing oil in aboveground storage tanks and transferring oil from the tanks via pipeline to marine vessels including tankers and tank barges. Crude oil would be delivered to the proposed Terminal by unit train composed of up to 120 crude oil tank cars each. Oil loaded onto marine vessels is primarily for delivery to refineries located on the West Coast of North America.

Effluent limits are established to regulate the discharge of stormwater discharged from the facility to the Columbia River via the existing Port of Vancouver stormwater outfalls. The limits established in the permit include: Total Suspended Solids (TSS), Oil and Grease, copper, zinc, benzene and BETX (total quantity of benzene, toluene, ethylbenzene and the m,o,p mixed isomers of xylene).

Table of Contents

I. Introduction

The Federal Clean Water Act (FCWA, 1972, and later amendments in 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES), administered by the federal Environmental Protection Agency (EPA). The EPA authorized the state of Washington to manage the NPDES permit program in our state. Our state legislature accepted the delegation and assigned the power and duty for conducting NPDES permitting and enforcement for energy facilities to EFSEC (Revised Code of Washington (RCW) 90.48.262(2)). The Legislature defined EFSEC's authority and obligations for the wastewater discharge permit program in RCW 80.50 and RCW 90.48.

The following regulations apply to industrial NPDES permits:

- Procedures EFSEC follows for issuing NPDES permits (chapter 463-76 WAC)
- Water quality criteria for surface waters (chapter 173-201A WAC)
- Water quality criteria for ground waters (chapter 173-200 WAC)
- Whole effluent toxicity testing and limits (chapter 173-205 WAC)
- Sediment management standards (chapter 173-204 WAC)
- Submission of plans and reports for construction of wastewater facilities (chapter 173-240 WAC)

These rules require any applicable industrial facility owner/operator to obtain an NPDES permit before discharging wastewater to state waters. They also help define the basis for limits on each discharge and for performance requirements imposed by the permit.

Under the NPDES permit program and in response to a complete and accepted permit application, EFSEC must prepare a draft permit and accompanying fact sheet, and make them available for public review before final issuance. EFSEC must also publish an announcement (public notice) telling people where they can read the draft permit, and where to send their comments, during a period of thirty days (WAC 463-76-041). (See **Appendix A-Public Involvement Information** for more detail about the public notice and comment procedures). After the public comment period ends, EFSEC may make changes to the draft NPDES permit in response to comment(s). EFSEC will summarize the responses to comments and any changes to the permit in **Appendix E**.

II. Background Information

Table 1 General Facility Information

Facility Information	
Applicant:	Tesoro Savage Petroleum Terminal, LLC
Facility Name and Address	Vancouver Energy Distribution Terminal 5501 Northwest Lower River Road, Vancouver, WA 98660
Contact at Facility	Name: Kelly Flint Telephone #: (801) 944-6600
Responsible Official	Name: Kelly Flint Title: Authorized Person Address: 6340 South 3000 East, Suite 600, Salt Lake City, UT 84121 Telephone #: (801) 944-6600 FAX # (801) 944-6554
Industry Type	Petroleum Bulk Terminal
Type of Treatment	GAC, Media Filtration
SIC Codes	5171
NAIC Codes	422710
Facility Location (NAD83/WGS84 reference datum)	Latitude: 45.651778° N Longitude: -122.731131° W
Discharge Waterbody Name and Location (NAD83/WGS84 reference datum)	Columbia River Terminal 4 (T4) Latitude: 45.6375° N Longitude: -122.7125° W Terminal 5 (T5) Latitude: 45.649722° N Longitude: -122.745833° W

Figure 1 Facility Location Map

A. Facility description

History

The proposed Facility is new. EFSEC has not previously issued any permits for the facility. Tesoro Savage Petroleum Terminal LLC (the Applicant) submitted an Application for Site Certification to EFSEC on August 29, 2013 to construct and operate the Vancouver Energy Distribution Terminal Facility at the Port of Vancouver in Vancouver, Washington.

The Port of Vancouver (the Port) is located 106 river miles from the Pacific Ocean on the Columbia River. The port currently has 13 deep draft vessel berths that can accommodate river and ocean-going vessels. The port is transited by BNSF Railway, Union Pacific Railroad, Canadian National Railroad and Canadian Pacific Railroad. The proposed project is located in Terminal 4 and Terminal 5 areas of the port. The rail receiving and offloading area for the proposed Terminal at Terminal 5 is connected to the BNSF railway into the Port. Marine oil transfer operations will occur at Port Berths 13 and 14 located at approximately Columbia River Mile 103.5 (RM 103.5).

The proposed Facility is a bulk oil terminal capable of receiving an average of 360,000 barrels (bbls) of crude oil per day by train for storing and transferring oil onto marine vessels

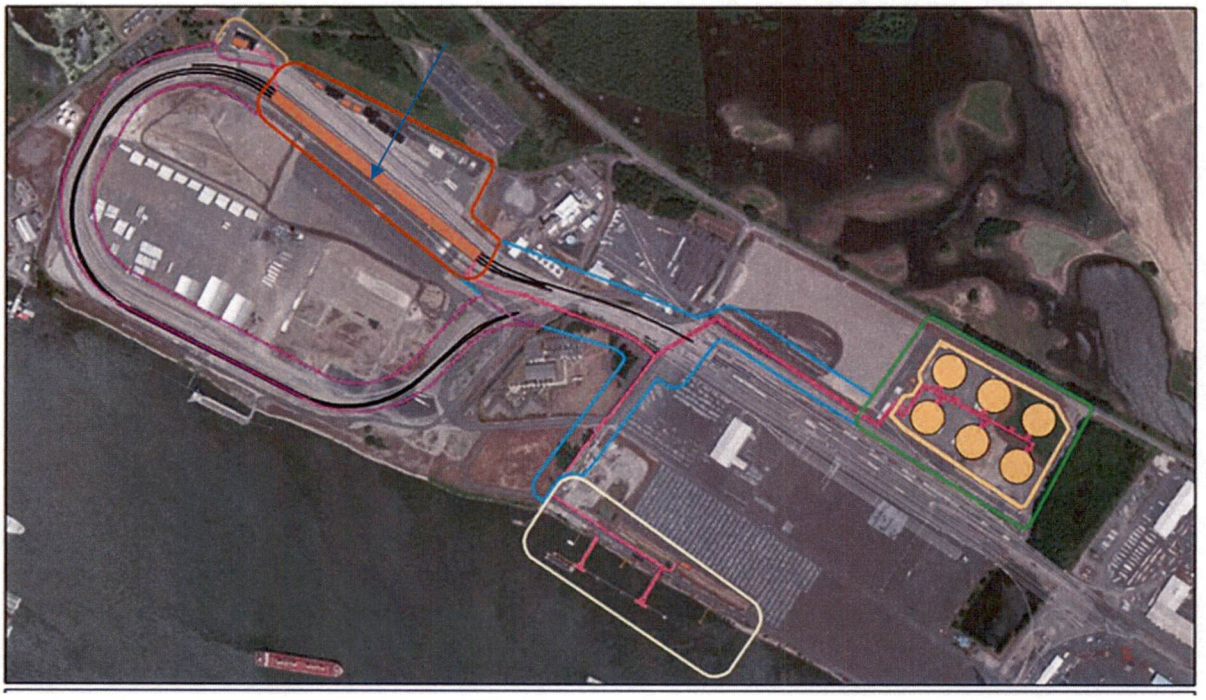
for delivery to refineries primarily located on the US West Coast. The Standard Industrial Classification (SIC) code for this facility is 5171. Crude oil would be delivered to the proposed Facility by trains composed of up to 120 crude oil tank cars each. The most likely sources of crude oil for this facility would be northern mid-continent crude oil produced in North Dakota, Montana, and western Canada. The oil would be shipped to customers/users primarily located on the U.S. west coast. An average of four unit trains per day would arrive at the proposed Facility. The facility would operate 24 hours a day, 7 days a week.

Industrial Processes

The proposed facility is located on Terminal 4 and Terminal 5 areas of the Port of Vancouver property with a total area of approximately 47.4 acres. Marine operations will occur at Port Berth 13 and 14 at Columbia River mile 103.5 approximately. The marine terminal is designed to accommodate vessels from 46,000 and 165,000 deadweight ton vessels including tankers and articulated barges.

The Port of Vancouver stormwater system is segregated into three drainage areas, Terminal 4, Terminal 5 and the Marine Terminal. Each drainage area has its individual collection/conveyance, treatment system, and different discharge point. This permit regulates discharges routed to all of these discharge points.

Figure 2 Facility Layout



Wastewater Treatment processes

The stormwater/process wastewater streams, treatment processes employed, and discharge points with Terminal 4 and 5 drainage basin are listed as follows.

Terminal 4 Drainage Basin:

The current drainage system within Terminal 4 drainage basin comprises approximately 250 acres of industrial land. A system of inlets and conveyance pipelines collects and conveys stormwater within the drainage area to the Terminal 4 water quality pond, as shown in Figure 3. The water quality pond had been modified to increase detention time and to increase bio-uptake with a FTW (Floating Treatment Wetland) system. From the water quality pond, stormwater is routed to the southeast corner where it is discharged through an existing outfall to the Columbia River.

There are two stormwater sources (Area 300, Area 500) within the Terminal 4 drainage basin:

Area 300 (storage tank containment area, pump basin and support building)

The storage tank containment area contains 6 storage tanks, oil transfer piping systems and a stormwater collection/conveyance system located in a secondary containment area. The containment berms are approximately 6 feet in height. The containment area is sized to contain 110% of the volume of one tank plus precipitation. Stormwater within the containment is collected and conveyed to a treatment system consists of an API oil/water separator, granular activated carbon (GAC) units, and a ZPG system which also contains GAC in the filter media. The maximum flow rate of the treatment system is 1,100 gallon per minute. The point of compliance for the discharge is established at the end of the treatment train prior to mixing with stormwater flows from other areas of the facility.

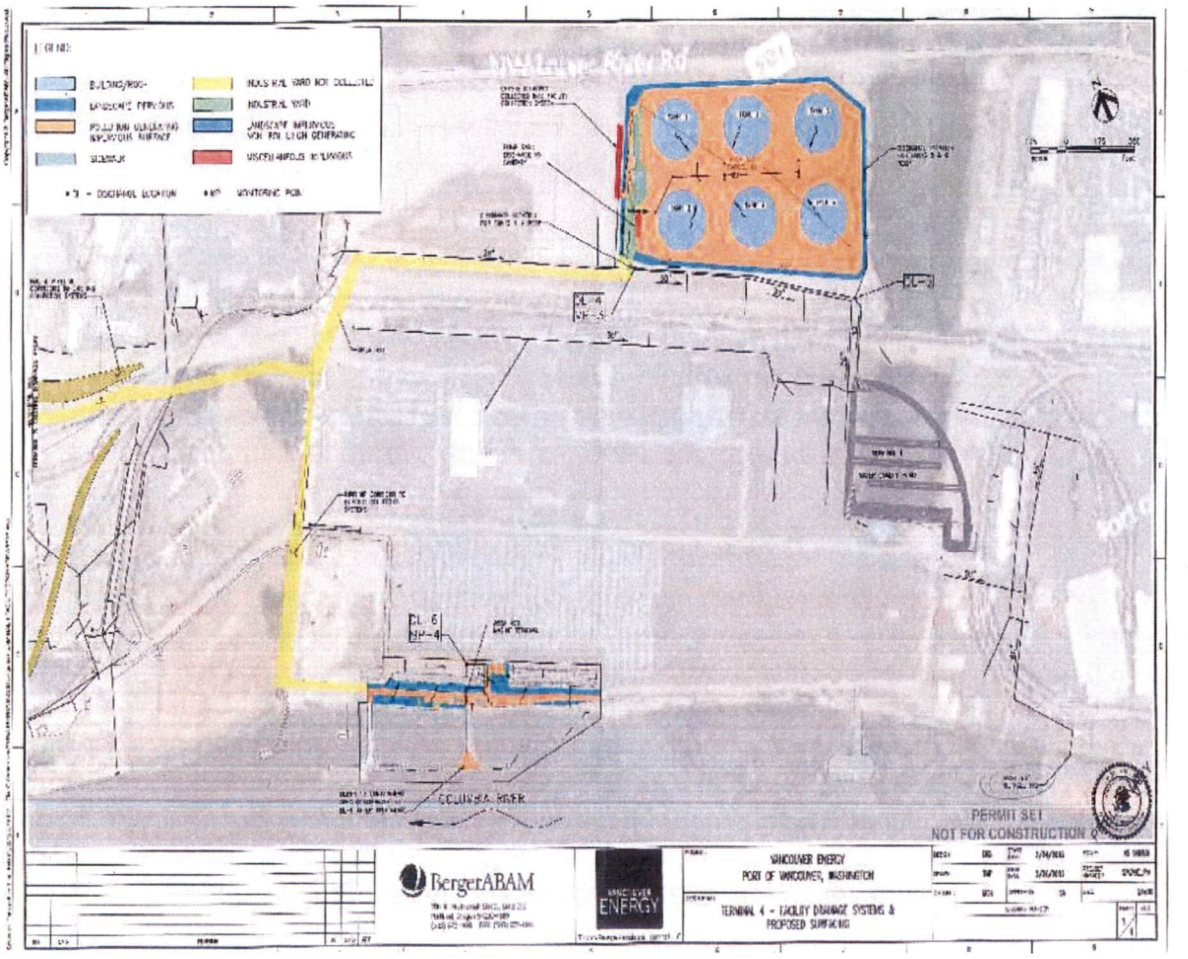
There is a 3,300 square feet pump basin in the tank farm containing crude oil transfer pumps for transferring product from storage tanks to the Marine Terminal. The pump basin is covered with a shed roof, runoff from the roof comingles with stormwater from the support areas and treated through a StormFilter water quality vault. Treated stormwater from Area 300 and stormwater from the former Farwest Steel site (an unrelated facility) is discharged to the Terminal 4 Northern pipeline that has been rerouted to bypass the Terminal 4 treatment pond and reconnect with the Port's Terminal 4 stormwater outfall and discharges to the Columbia River under this Permit, WAXXXXX.

Area 500 (Transfer Pipeline)

Stormwater from areas along the transfer pipeline is collected and conveyed via the port stormwater system to the Port stormwater quality pond for treatment. Discharge of stormwater from the water quality pond to the Columba River is regulated under an Industrial Stormwater General Permit issued to the Port by the Department of Ecology

(Ecology), not under this Permit (WAXXXXX).

Figure 3 Terminal 4 Drainage System



Terminal 5 Drainage Basin:

There are two stormwater/process wastewater sources (Area 200, Area 600) within the Terminal 5 drainage basin:

Area 200 (Unloading area and Administration Building)

The unloading facility is approximately 1,850 feet long and 91 feet wide with a maximum height of 50 feet. The facility receives crude oil from unit trains each consists of 100 to 120 cars with total capacities between 65,000 and 90,000 barrel of oil. The Permit regulates two different waste stream pathways in Area 200 as described below

1. Miscellaneous part and equipment washing would be conducted in a designated area located in Area 200 (Unloading and Office). Wash water is generated from a single 5-gpm

pressure washer and would be collected and conveyed to the containment tanks located by the administration/support building. Those tanks are double-walled tank with approximately 1,500 bbls of holding capacity.

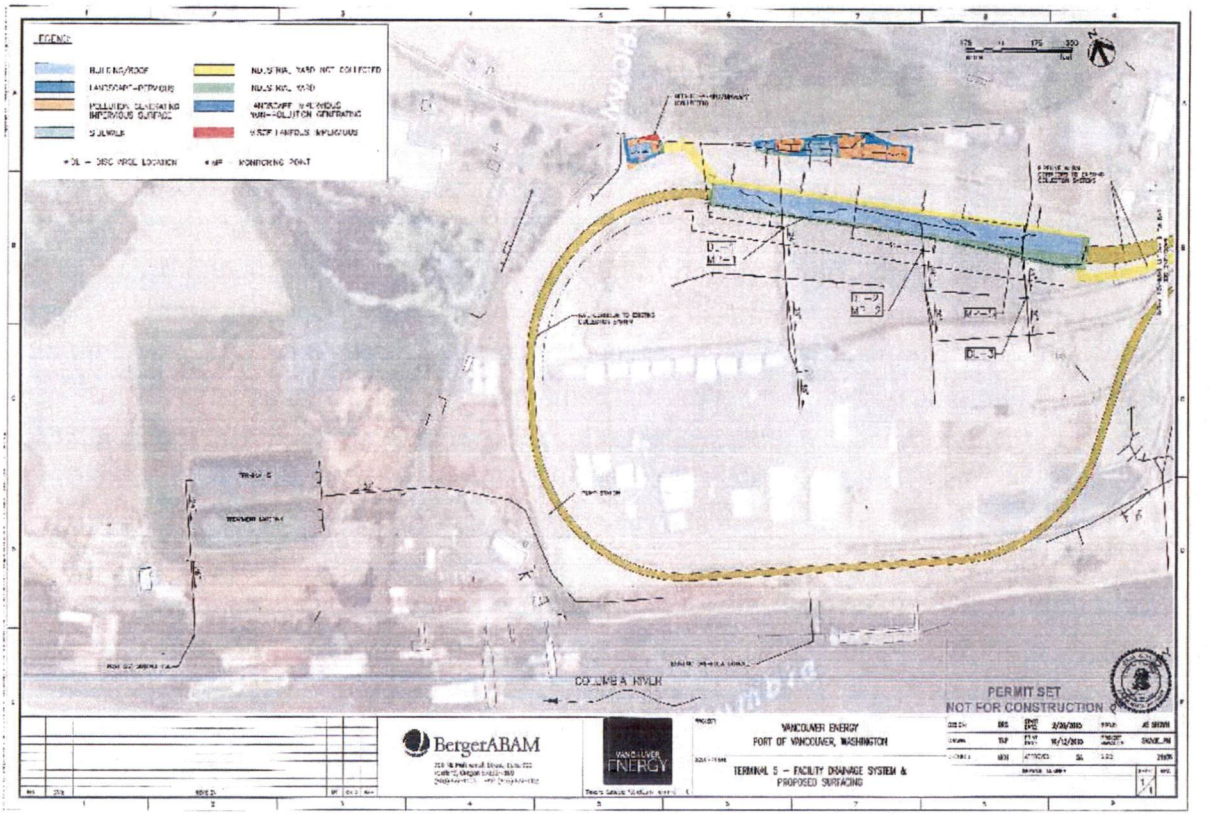
Rainwater that enters the structure via railcars or blown in from the sides, entry and exits, and fire retardant foam released by the fire suppression system during routine maintenance is also collected and conveyed to the containment tanks. Drip pans and secondary containment trenches are installed between, and adjacent to, the tracks of the railcar unloading structure to capture any rainwater, inadvertently released oil, and fire retardant would be directed to sump pumps installed at low points within each containment trench. All wastewater collected within the unloading facility is transferred to containment tanks via the sump pumping system. Content of the containment tanks are hauled off site by a licensed hauler for treatment and disposal. This permit requires Vancouver Energy to track and record the time, amount of process wastewater transferred and name of the receiving facility and the records must be made available for state agency inspectors to review.

2. Stormwater system on the south side of the unloading facility is divided into east and west system. Stormwater collected within each system is comingled with runoff from other areas of the facility and treated in StormFilter vaults. This treated stormwater is then mixed with roof runoff not exposed to industrial activity from the administration building, boiler house, and unloading facility prior to discharging to the Columbia River via the Port T5 outfall under this Permit, WAXXXXX.

Area 600 – Boiler Building
The boiler building is located west to the administration building with an area of approximately 6,000 square foot. The building will house two primary and one standby natural gas fired boilers to provide heating for tank car unloading operations. Potable water from the City is treated with an RO system and with chemicals as needed including scaling inhibitor similar to Nalco NextGuard 22310, corrosion inhibitor similar to Nalco Tri-Act 1820, oxygen scavenger similar to Nalco 1720 and pH adjustment using Nalco 8735.

Boiler blowdown is combined with RO reject water and miscellaneous maintenance drain water within the boiler plant and pumped to the gravity sewer installed on site at Area 200, passes through an oil-water separator, and is discharged to the sanitary sewer. The discharge of wastewater from the boiler building to sanitary sewer is regulated under a pretreatment permit issued by the City.

Figure 4 Terminal 5 Drainage System



Marine Terminal – **Area 400**

The marine terminal uses hoses for oil transfer operations. Transfer hoses and manifold are located in a containment area on the dock. Stormwater from the containment area is collected in a sump and gravity drained to an onshore treatment unit containing an oil/water separator, ZPG media and GAC units.

Stormwater from the remaining areas of the dock, causeway, and upland parking lot is collected at catch basins with StormFilter filters and discharged to the port's existing bio-swale with treated stormwater from the containment area.

Treated stormwater from the marine terminal containment area must meet the permit limits under this Permit, WAXXXXX prior to infiltrating to the ground.

Discharge outfall

The treated stormwater flows into the Columbia River through the Port's existing T4 and T5 stormwater outfalls under this Permit, WAXXXXX.

B. Description of the receiving water

Vancouver Energy Terminal discharges to the Columbia River via the existing Port of Vancouver T 4 and T 5 outfalls. Other nearby point source outfalls include City of Vancouver Westside Wastewater Treatment Plant and few industries located on the Port of Vancouver property. This section of the Columbia River is listed on the 303d list for temperature. No drinking water intakes appear to be nearby the proposed Facility. According the Applicant's preliminary draft Operations Facility Oil Spill Contingency Plan, dated June 2015, the closest drinking water intake is located in Rainer, Oregon at River Mile 68.

The ambient background data used for this permit includes the following from a facility upstream to Vancouver Energy around River mile 120:

Table 2 Ambient Background Data

Parameter	**Value Used**
Temperature (highest annual 1-DADMax)	21.8° C
Temperature (highest annual 7-DADMax)	21.5° C
pH (Maximum / Minimum)	7.12/ 7.99 standard units
Dissolved Oxygen	11.2 mg/L
Total Ammonia-N	0.06 mg/L
Fecal Coliform	3.68/100 mL dry weather
Turbidity	3.5 NTU
Hardness	61.6 mg/L as CaCO3
Lead	0.02 µg/L
Copper	1.27 µg/L
Zinc	0.88 µg/L

C. Wastewater characterization

Vancouver Energy reported the concentration of pollutants in the discharge in the permit application based on data from the Tesoro Anacortes Refinery. The tabulated data represents the quality of the stormwater effluent discharged from processes with similar operating characteristics. The wastewater effluent is characterized as follows:

Table 3 Predicted Treated Stormwater Characteristics

Parameter	Units	Value
Biochemical Oxygen Demand (BOD_5)	mg/L	3.7
Total Suspended Solids (TSS)	mg/L	10.3
Oil and Grease	µg/L	737.8
Chemical Oxygen Demand	mg/L	9.1
Nitrate + Nitrite Nitrogen (as N)	µg/L	6.4
Nitrogen, Total Kjeldahl (as N)	µg/L	106.5
Phosphorus	µg/L	1.7
Sulfide	mg/L	0.002
BETX	µg/L	<100
Antinomy, Total	µg/L	6.2
Arsenic, Total	µg/L	0.3
Cadmium, Total	µg/L	0.3
Chromium, Total	µg/L	0.3
Copper, Total	µg/L	2.7
Lead, Total	µg/L	2.2
Mercury, Total	µg/L	0.0092
Nickle, Total	µg/L	0.4
Selenium	µg/L	0.1
Thallium, Total	µg/L	0.023
Zinc, Total	µg/L	20.8
Benzene	µg/L	0.1
Ethylbenzene	µg/L	0.1
Toluene	µg/L	0.1

Parameter	Units	Value
Acenapthene	µg/L	0.2
Anthracene	µg/L	0.1
Fluoranthene	µg/L	0.2
Fluorene	µg/L	0.1
Naphththalene	µg/L	0.1
Phenanthrene	µg/L	0.3
Pyrnee	µg/L	0.09

Parameter	Units	Maximum Monthly Geometric Mean
Fecal Coliforms	Col/100 mL	0.6

Parameter	Units	Minimum Value	Maximum Value
pH	standard units	**6**	

D. Summary of compliance with previous permit Issued

NA

E. State environmental policy act (SEPA) compliance

To meet the intent of SEPA, new discharges must undergo SEPA review during the permitting process. EFSEC is the lead agency under SEPA for the Vancouver Energy project and, under RCW 80.50, for all associated permitting, including this permit (WAC 197-11-938). EFSEC made a SEPA threshold determination of significance for the project in October 2013. EFSEC published a Draft Environmental Impact Statement (DEIS) on November 24, 2015, that discusses this Permit's role in managing stormwater discharges from the facility. EFSEC hereby adopts Appendix A, § A.2.3.2 of the DEIS issued on November 24, 2015 for the Vancouver Energy Project, specifically the section regarding the NPDES Industrial Stormwater Permit, as being appropriate for the SEPA analysis required for issuance of this Permit. No determination different than the determination made for the entire Vancouver Energy Project is required.

III. Proposed Permit Limits

Federal and state regulations require that effluent limits in an NPDES permit must be either technology- or water quality-based.

- Technology-based limits are based upon the treatment methods available to treat specific pollutants. Technology-based limits are set by the EPA and published as a regulation, or EFSEC develops the limit on a case-by-case basis (40 CFR 125.3, and WAC 463-76-053).
- Water quality-based limits are calculated so that the effluent will comply with the Surface Water Quality Standards (chapter 173-201A WAC), Ground Water Standards (chapter 173-200 WAC), Sediment Quality Standards (chapter 173-204 WAC), the National Toxics Rule (40 CFR 131.36), or the revised federal water quality criteria for Washington (40 CFR 131.45).
- EFSEC must apply the most stringent of these limits to each parameter of concern. These limits are described below.

The limits in this permit reflect information received in the application and from supporting reports (engineering, hydrogeology, etc.). EFSEC evaluated the permit application and determined the limits needed to comply with the rules adopted by the state of Washington. EFSEC does not develop effluent limits for all reported pollutants. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation.

EFSEC does not usually develop limits for pollutants not reported in the permit application but may be present in the discharge. The permit does not authorize discharge of the non-reported pollutants. During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application. The facility must notify EFSEC if significant changes occur in any constituent [40 CFR 122.42(a)]. Until EFSEC modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

A. Design criteria

Under WAC 173-220-150 (1)(g), flows and waste loadings must not exceed approved design criteria. EFSEC approved design criteria for this facility's treatment plant in the engineering report/facility plan/plans and specifications dated October 2015, revised August 2016 and prepared by Berger ABAM. The table below includes design criteria from the referenced report.

Storm events that exceed the hydraulic design criteria of stormwater treatment systems may bypass the treatment system when EFSEC has determined the system meets AKART requirements. EFSEC would not consider this a violation of the conditions of the permit, if the bypass can meet water quality criteria. AKART for stormwater is constantly progressing and, as technology advances, facilities will have more cost effective, more efficient, and higher capacity treatment system options available. EFSEC expects the facility to meet

AKART and make the necessary improvements to its treatment system as the treatment technology evolves.

Stormwater from each areas of the facility is collected, conveyed and treated prior to discharging to the Columbia River via the Port's outfalls. Flow rate for each area varies due to size and surface conditions as listed in Table 4.

Table 4 Flow rate for each of the operating area within the facility

Area	Location	25-year flow rate (cfs)
200	West –Rail Unloading Facility and Admin Support	0.99
200	Eat – Rail Facility	1.07
300	Containment Area	2.45*
300	Support Building and parking lot10.33	10.33
300	Tank Roof	5.21
400	Dock Containment Area	0.02

* Flow rate form the containment area is restricted to match the oil/water separator peak capacity

B. Technology-based effluent limits

EFSEC must ensure that facilities provide all known, available, and reasonable methods of prevention, control, and treatment (AKART) when it issues a permit. Technology-based limitations are set by regulation in the federal effluent guidelines or on a case-by-case basis using Best Professional Judgment (BPJ) when no effluent guidelines exist for an industrial category. Technology-based limits represent the best treatment a facility can achieve consistent with the economic means of the industry as a whole (in the case of effluent guidelines) or of the specific facility being permitted (in the case of BPJ). Technology-based effluent limits are process control parameters or numbers which indicate that a process, which in this case is wastewater treatment, is not functioning properly. The technology-based limits are listed in Table 5 are based on either treatment capability of equipment employed or by BPJ. The limit for Benzene is based on the United States Environmental Protection Agency drinking water standards and treatability database.

Table 5 Technology-based Limits

Parameter	Average Monthly Limit	Maximum Daily Limit
Oil & Grease (mg/L)	10	15
Total Suspended Solids (TSS) (mg/L)	30	45
Benzene (µg/L)	NA	5
BETX	NA	100

Parameter	Daily Minimum	Daily Maximum
pH	6.0 standard units	9.0 standard units

C. Surface water quality-based effluent limits

The Washington State surface water quality standards (chapter 173-201A WAC) are designed to protect existing water quality and preserve the beneficial uses of Washington's surface waters. Waste discharge permits must include conditions that ensure the discharge will meet the surface water quality standards (WAC 173-201A-510). Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load study (TMDL).

Numerical criteria for the protection of aquatic life and recreation

Numerical water quality criteria are listed in the water quality standards for surface waters (chapter 173-201A WAC). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. EFSEC uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits. The state standards were updated in August 2016.

Numerical criteria for the protection of human health

EPA published final updated ambient water quality criteria for the protection of human health for 94 chemical pollutants. These updated recommendations reflect the latest scientific information and EPA policies, including updated body weight, drinking water consumption rate, fish consumption rate, bioaccumulation factors, health toxicity values, and relative source contributions.

Narrative criteria

Narrative water quality criteria (e.g., WAC 173-201A-240(1) (2006)) limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge to levels below those which have the potential to:

- Adversely affect designated water uses.
- Cause acute or chronic toxicity to biota.
- Impair aesthetic values.
- Adversely affect human health.

Narrative criteria protect the specific designated uses of all fresh waters (WAC 173-201A-200 (2006)) and of all marine waters (WAC 173-201A-210 (2006)) in the state of Washington.

Antidegradation

Description--The purpose of Washington's Antidegradation Policy (WAC 173-201A-300-330 (2006)) is to:

- Restore and maintain the highest possible quality of the surface waters of Washington.
- Describe situations under which water quality may be lowered from its current condition.
- Apply to human activities that are likely to have an impact on the water quality of surface water.
- Ensure that all human activities likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART).
- Apply three tiers of protection (described below) for surface waters of the state.

Tier I ensures existing and designated uses are maintained and protected and applies to all waters and all sources of pollutions. Tier II ensures that waters of a higher quality than the criteria assigned are not degraded unless such lowering of water quality is necessary and in the overriding public interest. Tier II applies only to a specific list of polluting activities. Tier III prevents the degradation of waters formally listed as "outstanding resource waters," and applies to all sources of pollution.

A facility must prepare a Tier II analysis when all three of the following conditions are met:

- The facility is planning a new or expanded action.
- EFSEC regulates or authorizes the action.
- The action has the potential to cause measurable degradation to existing water quality at the edge of a chronic mixing zone.

Facility Specific Requirements--EFSEC determined that this facility must meet Tier II requirements. A Tier II analysis focuses on evaluating feasible alternatives that would eliminate or significantly reduce the level of degradation. The analysis also includes a review of the benefits and costs associated with the lowering of water quality. New discharges and

facility expansions are prohibited from lowering water quality without providing overriding public benefits.

Mixing zones

A mixing zone is the defined area in the receiving water surrounding the discharge port(s), where wastewater mixes with receiving water. Within mixing zones the pollutant concentrations may exceed water quality numeric standards, so long as the discharge doesn't interfere with designated uses of the receiving water body (for example, recreation, water supply, and aquatic life and wildlife habitat, etc.) The pollutant concentrations outside of the mixing zones must meet water quality numeric standards.

State and federal rules allow mixing zones because the concentrations and effects of most pollutants diminish rapidly after discharge, due to dilution. EFSEC defines mixing zone sizes to limit the amount of time any exposure to the end-of-pipe discharge could harm water quality, plants, or fish.

The state's water quality standards allow EFSEC to authorize mixing zones for the facility's permitted wastewater discharges only if those discharges already receive all known, available, and reasonable methods of prevention, control, and treatment (AKART). Mixing zones typically require compliance with water quality criteria within a specified distance from the point of discharge and must not use more than 25% of the available width of the water body for dilution (WAC 173-201A-400 (7)(a)(ii-iii)).

D. Designated uses and surface water quality criteria

Applicable designated uses and surface water quality criteria are defined in chapter 173-201A WAC. In addition, the U.S. EPA has set human health criteria for toxic pollutants for Washington state (EPA 1992 and EPA 2016). The table included below summarizes the criteria applicable to this facility's discharge.

- Aquatic Life Uses are designated based on the presence of, or the intent to provide protection for the key uses. All indigenous fish and non-fish aquatic species must be protected in waters of the state in addition to the key species. The Aquatic Life Uses for this receiving water are identified below.

Table 6 Freshwater Aquatic Life Uses and Associated Criteria

Salmonid Spawning, Rearing, and Migration	
Temperature Criteria – Highest 7-DAD MAX	17.5°C (63.5°F)
Dissolved Oxygen Criteria – Lowest 1-Day Minimum	8.0 mg/L
Turbidity Criteria	• 5 NTU over background when the background is 50 NTU or less; or • A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
Total Dissolved Gas Criteria	Total dissolved gas must not exceed 110 percent of saturation at any point of sample collection.

Salmonid Spawning, Rearing, and Migration	
pH Criteria	The pH must measure within the range of 6.5 to 8.5 with a human-caused variation within the above range of less than 0.5 units.

- The recreational uses are extraordinary primary contact recreation, primary contact recreation, and secondary contact recreation. The recreational uses for this receiving water are identified below.

Table 7 Recreational Uses and Associated Criteria

Recreational Use	Criteria
Primary Contact Recreation	Fecal coliform organism levels must not exceed a geometric mean value of 100 colonies /100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 200 colonies /100 mL.

- The *water supply uses* are domestic, agricultural, industrial, and stock watering.
- The *miscellaneous freshwater uses* are wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics.

E. Water quality impairments

EFSEC has not documented temperature impairment in the receiving water in the vicinity of the outfall. However, the entire Columbia River is impaired for temperature. EPA has prepared a draft TMDL for temperature however has delayed issuance pending discussion and information exchanges.

F. Evaluation of surface water quality-based effluent limits for narrative criteria

EFSEC must consider the narrative criteria described in WAC 173-201A-260 when it determines permit limits and conditions. Narrative water quality criteria limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge which have the potential to adversely affect designated uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health.

EFSEC considers narrative criteria when it evaluates the characteristics of the wastewater and when it implements all known, available, and reasonable methods of treatment and prevention (AKART) as described above in the technology-based limits section. When EFSEC determines if a facility is meeting AKART it considers the pollutants in the wastewater and the adequacy of the treatment to prevent the violation of narrative criteria.

In addition, EFSEC considers the toxicity of the wastewater discharge by requiring whole effluent toxicity (WET) testing when there is a reasonable potential for the discharge to contain toxics. EFSEC's analysis of the need for WET testing for this discharge is described later in the fact sheet.

G. Evaluation of surface water quality-based effluent limits for numeric criteria

EFSEC has not authorized a mixing zone in the permit.

Toxic Pollutants--Federal regulations (40 CFR 122.44) require EFSEC to place limits in NPDES permits on toxic chemicals in an effluent whenever there is a reasonable potential for those chemicals to exceed the surface water quality criteria. EFSEC does not exempt facilities with technology-based effluent limits from meeting the surface water quality standards.

The permittee predicted that following toxic pollutants are present in the discharge based on wastewater information from a facility with similar operations: arsenic, copper, zinc, benzene, ethylbenzene and toluene. Based on water quality criteria listed in Section 173-201A WAC and effluent monitoring data from facilities with similar operations, EFSEC determined copper, zinc, benzene and BETX have the potential to cause violation of water quality and it is necessary to establish effluent limits to protect the receiving water quality. The benzene and BETX limits in the permit are technology-based limits, as described in the previous section. The water quality based limits for copper and zinc are calculated using an Excel spreadsheet (PermitCalcMarch9-2015) developed by Ecology based on criteria listed in Chapter 173-201A WAC.

The resultant water quality-based effluent limits are as follows:

Table 8 Water quality-based limits (Hardness: 61.6)

Parameter	Units	Daily Maximum
Copper	µg/L	10.78
Zinc	µg/L	75.91

Vancouver Energy discharges only treated stormwater to the Columbia River. EFSEC determined that temperature is not a significant stormwater pollutant parameter. Therefore, the proposed permit does not include a temperature limit and it does not require the facility to monitor temperature in the stormwater discharges. EFSEC may elect to develop procedures and guidance for regulating the effects of stormwater to comply with temperature water quality criteria in the future.

H. Human health

Washington's water quality standards include numeric human health-based criteria that EFSEC must consider when writing NPDES permits. These criteria were first established in 1992 by the U.S. EPA in its National Toxics Rule (40 CFR 131.36), then revised again for Washington state in 2016 (40 CFR 131.45). The National Toxics Rule allows states to use mixing zones to evaluate whether discharges comply with human health criteria.

Stormwater discharges are highly intermittent and highly variable in discharge volumes, durations, and pollutant concentrations, both between storms and during a single storm event. Therefore, deriving numeric effluent limits for human health criteria is infeasible. Based on the authority of 40 CFR 122.44(k)(3), this permit should require the implementation of best

management practices (BMPs) to control or abate human health pollutants from these discharges. The draft permit will not establish effluent limits based on human health criteria. The permit instead will require will require implementation of BMPs as specified in Special Condition S7.

L. Effluent limits:

Table 9 Propsed Effluent Limits

	Proposed Effluent Limits: Outfall T4 & T5			
Parameter	**Basis of Limit**	**Unit**	**Monthly Average**	**Daily Maximum**
Total Suspended Solids	Technology	mg/L	30	45
Oil and Grease	Technology	mg/L	10	15
Benzene	Technology	µg/L	NA	5
BETX	Technology	µg/L	NA	<100
Copper	Water Quality	µg/L	NA	10.78
Zinc	Water Quality	µg/L	NA	75.91

Parameter	**Basis of Limit**	**Limit**
pH	Technology	Between 6 and 9

IV. Monitoring Requirements

EFSEC requires monitoring, recording, and reporting (WAC 463-76-065 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and that the discharge complies with the permit's effluent limits.

If a facility uses a contract laboratory to monitor wastewater, it must ensure that the laboratory uses the methods and meets or exceeds the method detection levels required by the permit. The permit describes when facilities may use alternative methods. It also describes what to do in certain situations when the laboratory encounters matrix effects. When a facility uses an alternative method as allowed by the permit, it must report the test method, detection level (DL), and quantitation level (QL) on the discharge monitoring report or in the required report.

A. Wastewater monitoring

The monitoring schedule is detailed in the proposed permit under Special Condition S.2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

B. Lab accreditation

EFSEC requires that facilities must use a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories, to prepare all monitoring data (with the exception of certain parameters).

V. Other Permit Conditions

A. Reporting and record keeping

EFSEC based Special Condition S3 on its authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges (WAC 463-76-065).

B. Non routine and unanticipated wastewater

Occasionally, this facility may generate wastewater which was not characterized in the permit application because it is not a routine discharge and was not anticipated at the time of application. These wastes typically consist of waters used to pressure-test storage tanks or fire water systems or of leaks from drinking water systems.

The permit authorizes the discharge of non-routine and unanticipated wastewater under certain conditions. The facility must characterize these waste waters for pollutants and examine the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and on any opportunities for reuse, EFSEC may:

- Authorize the facility to discharge the wastewater.
- Require the facility to treat the wastewater.
- Require the facility to reuse the wastewater.

C. Spill plan

This facility stores a quantity of chemicals on-site that have the potential to cause water pollution if accidentally released. EFSEC can require a facility to develop best management plans to prevent this accidental release under Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and WAC 463-76-053.

The proposed permit requires this facility to develop and implement a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

D. Operation and maintenance manual

EFSEC requires industries to take all reasonable steps to properly operate and maintain their wastewater treatment system in accordance with state and federal regulations [40 CFR 122.41(e) and WAC 463-76-053]. The facility will prepare and submit an operation and maintenance manual as required by the Permit. Implementation of the procedures in the operation and maintenance manual ensures the facility's compliance with the terms and limits in the permit.

E. Stormwater pollution prevention plan

In accordance with 40 CFR 122.44(k) and 40 CFR 122.44(s), the proposed permit includes requirements for the development and implementation of a SWPPP along with BMPs to minimize or prevent the discharge of pollutants to waters of the state. BMPs constitute Best Conventional Pollutant Control Technology (BCT) and Best Available Technology Economically Achievable (BAT) for stormwater discharges. EFSEC has determined that Vancouver Energy must develop a SWPPP and implement adequate BMPs in order to meet the requirements of "all known, available, and reasonable methods of prevention, control, and treatment" (AKART). A SWPPP requires a facility to implement actions necessary to manage stormwater to comply with the state's requirement under chapter 90.48 RCW to protect the beneficial uses of waters of the state.

The SWPPP must identify potential sources of stormwater contamination from industrial activities, establish appropriate BMPs and identify how it plans to manage those sources of contamination to prevent or minimize contamination of stormwater. Vancouver Energy must continuously review and revise the SWPPP as necessary to assure that stormwater discharges do not degrade water quality. It must retain the SWPPP on-site or within reasonable access to the site and available for review by EFSEC.

BMPs are the actions identified in the SWPPP to manage, prevent contamination of, and treat stormwater. BMPs include schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment systems, operating procedures, and practices used to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage. Vancouver Energy must ensure that its SWPPP includes the operational and structural source control BMPs listed as "applicable" in Ecology's stormwater management manuals. Many of these "applicable" BMPs are sector-specific or activity-specific, and are not required at facilities engaged in other industrial sectors or activities.

Ecology-Approved Stormwater Management Manuals

The proposed permit requires the facility to implement BMPs contained in the Stormwater Management Manual for Western Washington (*2005* edition), or any revisions thereof, or practices that are demonstrably equivalent to practices contained in stormwater technical manuals approved by Ecology. This should ensure that BMPs will prevent violations of state water quality standards, and satisfy the state AKART requirements and the federal technology-based treatment requirements under 40 CFR part 125.3. The SWPPP must document that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable Stormwater Management Manuals, including: The technical basis for the selection for all stormwater BMPs (scientific, technical studies, and/or modeling) which support the performance claims for the BMPs selected.

An assessment of how the BMPs will satisfy AKART requirements and the applicable technology-based treatment requirements under 40 CFR part 125.3.

Operational Source Control BMPs

Operational source control BMPs include a schedule of activities, prohibition of practices, maintenance procedures, employee training, good housekeeping, and other managerial practices to prevent or reduce the pollution of waters of the state. These activities do not require construction of pollution control devices but are very important components of a successful SWPPP. Employee training, for instance, is critical to achieving timely and consistent spill response. Pollution prevention is likely to fail if the employees do not understand the importance and objectives of BMPs. Prohibitions might include eliminating outdoor repair work on equipment and certainly would include the elimination of intentional draining of crankcase oil on the ground. Good housekeeping and maintenance schedules help prevent incidents that could result in the release of pollutants. Operational BMPs represent a cost-effective way to control pollutants and protect the environment. The SWPPP must identify all the operational BMPs and how and where they are implemented. For example, the SWPPP must identify what training will consist of, when training will take place, and who is responsible to assure that employee training happens.

Structural Source Control BMPs

Structural source control BMPs include physical, structural, or mechanical devices or facilities intended to prevent pollutants from entering stormwater. Examples of source control BMPs include erosion control practices, maintenance of stormwater facilities (e.g., cleaning out sediment traps), construction of roofs over storage and working areas, and direction of equipment wash water and similar discharges to the sanitary sewer or a dead end sump. Structural source control BMPs likely include a capital investment but are cost effective compared to cleaning up pollutants after they have entered stormwater.

Treatment BMPs

Operational and structural source control BMPs are designed to prevent pollutants from entering stormwater. However, even with an aggressive and successful program, stormwater may still require treatment to achieve compliance with water quality standards. Treatment BMPs remove pollutants from stormwater. Examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

Volume/Flow Control BMPs

EFSEC recognizes the need to include specific BMP requirements for stormwater runoff quantity control to protect beneficial water uses, including fish habitat. New facilities and existing facilities undergoing redevelopment must implement the requirements for peak runoff rate and volume control identified by volume 1 of the *Western Washington SWMM* and chapter 2 in the *Eastern Washington SWMM* as applicable to their development. Chapter 3 of volume 3 *Western Washington SWMM* and chapter 6 in the *Eastern Washington SWMM* lists BMPs to accomplish rate and volume control. Existing facilities in western Washington should also review the requirements of volumes 1 (Minimum Technical Requirements) and chapter 3 of volume 3 in the *Western Washington SWMM.* Chapter 2 (Core Elements for New Development and Redevelopment) in the *Eastern Washington SWMM* contains the minimum technical requirements for facilities east of the Cascades. Although not required to implement these BMPs, controlling rate and volume of stormwater discharge maintains the

health of the watershed. Existing facilities should identify control measures that they can implement over time to reduce the impact of uncontrolled release of stormwater.

F. Off-site Wastewater Disposal Reporting Requirements

The Permittee is authorized to dispose of wastewater generated onsite at an approved wastewater treatment facility. The draft permit establishes reporting requirements to ensure all the wastewater generated has been properly disposed of at the approved facility.

G. General conditions

EFSEC bases the standardized General Conditions on state and federal law and regulations. They are included in all individual industrial NPDES permits issued by EFSEC.

VI. Permit Issuance Procedures

A. Permit modifications

EFSEC may modify this permit to impose numerical limits, if necessary to comply with water quality standards for surface waters, with sediment quality standards, or with water quality standards for groundwaters, after obtaining new information from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

EFSEC may also modify this permit to comply with new or amended state or federal regulations.

B. Proposed permit Issuance

This proposed permit includes all statutory requirements for EFSEC to authorize a wastewater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the state of Washington. EFSEC proposes to issue this permit for a term of 5 years.

VII. REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA)

2016. Revision of certain Federal Water Quality Criteria Applicable to Washington. Federal Register, V. 81, No. 228, Monday, November 28, 2016.

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991. *Technical Support Document for Water Quality-based Toxics Control*. EPA/505/2-90-001.

1988. *Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling*. USEPA Office of Water, Washington, D.C.

1985. *Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water*. EPA/600/6-85/002a.

1983. *Water Quality Standards Handbook*. USEPA Office of Water, Washington, D.C.

Tsivoglou, E.C., and J.R. Wallace.

1972. *Characterization of Stream Reaeration Capacity*. EPA-R3-72-012. (Cited in EPA 1985 op.cit.)

Washington State Department of Ecology.

December 2011. *Permit Writer's Manual*. Publication Number 92-109 (https://fortress.wa.gov/ecy/publications/SummaryPages/92109.html)

September 2011. *Water Quality Program Guidance Manual – Supplemental Guidance on Implementing Tier II Antidegradation*. Publication Number 11-10-073 (https://fortress.wa.gov/ecy/publications/summarypages/1110073.html)

October 2010 (revised). *Water Quality Program Guidance Manual – Procedures to Implement the State's Temperature Standards through NPDES Permits*. Publication Number 06-10-100 (https://fortress.wa.gov/ecy/publications/summarypages/0610100.html)

Laws and Regulations(http://www.ecy.wa.gov/laws-rules/index.html)

Permit and Wastewater Related Information (http://www.ecy.wa.gov/programs/wq/permits/guidance.html)

February 2007. *Focus Sheet on Solid Waste Control Plan, Developing a Solid Waste Control Plan for Industrial Wastewater Discharge Permittees*, Publication Number 07-10-024. http://www.ecy.wa.gov/pubs/0710024.pdf

Wright, R.M., and A.J. McDonnell.

1979. *In-stream Deoxygenation Rate Prediction*. Journal Environmental Engineering Division, ASCE. 105(EE2). (Cited in EPA 1985 op.cit.)

Appendix A--Public Involvement Information

The EFSEC tentatively plans to issue a permit to Vancouver Energy. The permit contains conditions and effluent limitations, which are described in this Fact Sheet.

The EFSEC will publish a Public Notice of Draft (PNOD) on May XX, 2017 in the Columbian newspaper to inform the public that a draft permit and fact sheet are available for review. Interested parties were mailed the notice on May XX, 2017 and are invited to submit written comments regarding the draft permit. The draft permit and fact sheet are available for viewing at the EFSEC website: http://www.efsec.wa.gov. The draft permit, fact sheet, and related documents are also available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at EFSEC's office listed below,. Written comments should be mailed to:

Sonia Bumpus
Energy Facility Site Evaluation Council
PO Box 43172
Olympia, Washington 98504-3172

Any interested party may comment on the draft permit within the 30-day comment period to the address above. EFSEC will hold a hearing on XX/XX/XXXX beginning at XX:XX am/pm at:

Clark College, Gaiser Hall
1933 Fort Vancouver Way
Vancouver, Washington

Comments should reference specific text in the permit followed by proposed modifications or concerns when possible. Comments may address technical issues, accuracy, and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit. If changes to this schedule are necessary EFSEC will notify the public as soon as possible.

The EFSEC will consider all comments received by midnight on XX/XX/XXXX in formulating a final determination to issue, revise, or deny the permit. EFSEC will provide a response to comments received at the time notice of the final permit decision is provided.

Further information may be obtained from EFSEC by telephone at (360) 664-1160, or at the EFSEC web site at www.efsec.wa.gov.

Questions regarding stormwater management may be directed to Sonia E. Bumpus of EFSEC at (360) 664-1363 or by email sbumpus@utc.wa.gov.

Appendix B--Your Right to Appeal

The terms and conditions of coverage under this permit, prepared as part of an application for site certification, are subject to judicial review pursuant to RCW 80.50.140. The EFSEC's reissuance, modification, or revocation of the permit is subject to judicial review pursuant to the provisions of RCW 34.05 (WAC 463-76-063).

Appendix C--Glossary

1-DMax or 1-day maximum temperature -- The highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

7-DADMax or 7-day average of the daily maximum temperatures -- The arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date.

Acute toxicity --The lethal effect of a compound on an organism that occurs in a short time period, usually 48 to 96 hours.

AKART -- The acronym for "all known, available, and reasonable methods of prevention, control and treatment." AKART is a technology-based approach to limiting pollutants from wastewater discharges, which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

Alternate point of compliance -- An alternative location in the groundwater from the point of compliance where compliance with the groundwater standards is measured. It may be established in the groundwater at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An "early warning value" must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2).

Ambient water quality -- The existing environmental condition of the water in a receiving water body.

Ammonia -- Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Annual average design flow (AADF -- average of the daily flow volumes anticipated to occur over a calendar year.

Average monthly (intermittent) discharge limit-- The average of the measured values obtained over a calendar months' time taking into account zero discharge days.

Average monthly discharge limit -- The average of the measured values obtained over a calendar months' time.

Background water quality -- The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of groundwater at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)]. Background water quality for any parameter is statistically defined as the 95% upper tolerance interval with a 95% confidence based on at least eight hydraulically upgradient

water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

Best management practices (BMPs) -- Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD5 -- Determining the five-day Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD5 is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD_5 is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass -- The intentional diversion of waste streams from any portion of a treatment facility.

Categorical pretreatment standards -- National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties, which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Chlorine -- A chemical used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic toxicity -- The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean water act (CWA -- The federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Compliance inspection-without sampling -- A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance inspection-with sampling -- A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations. In addition it includes as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. EFSEC and/or Ecology may conduct additional sampling.

Composite sample -- A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected

by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

Construction activity -- Clearing, grading, excavation, and any other activity, which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

Continuous monitoring -- Uninterrupted, unless otherwise noted in the permit.

Critical condition -- The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Date of receipt – This is defined in RCW 43.21B.001(2) as five business days after the date of mailing; or the date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the agency, constitutes sufficient evidence of actual receipt. The date of actual receipt, however, may not exceed forty-five days from the date of mailing.

Detection limit -- The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the pollutant concentration is above zero and is determined from analysis of a sample in a given matrix containing the pollutant.

Dilution factor (DF) -- A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction, for example, a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Distribution uniformity -- The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

Early warning value -- The concentration of a pollutant set in accordance with WAC 173-200-070 that is a percentage of an enforcement limit. It may be established in the effluent, groundwater, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

Enforcement limit -- The concentration assigned to a contaminant in the groundwater at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a groundwater criterion will not be exceeded and that background water quality will be protected.

Engineering report -- A document that thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report must contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Fecal coliform bacteria -- Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are

controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Grab sample -- A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

Groundwater -- Water in a saturated zone or stratum beneath the surface of land or below a surface water body.

Industrial user -- A discharger of wastewater to the sanitary sewer that is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial wastewater -- Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated stormwater and, also, leachate from solid waste facilities.

Interference -- A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local limits -- Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Major facility -- A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum daily discharge limit -- The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Maximum day design flow (MDDF) -- The largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

Maximum month design flow (MMDF) -- The largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

Maximum week design flow (MWDF) -- The largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

Method detection level (MDL) -- See Detection Limit.

Minor facility -- A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing zone -- An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The permit specifies the area of the authorized mixing zone that Ecology defines following procedures outlined in state regulations (chapter 173-201A WAC).

National pollutant discharge elimination system (NPDES) -- The NPDES (Section 402 of the Clean Water Act) is the federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both state and federal laws.

pH -- The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7 is defined as neutral and large variations above or below this value are considered harmful to most aquatic life.

Pass-through -- A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

Peak hour design flow (PHDF) -- The largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

Peak instantaneous design flow (PIDF) -- The maximum anticipated instantaneous flow.

Point of compliance -- The location in the groundwater where the enforcement limit must not be exceeded and a facility must comply with the Ground Water Quality Standards. EFSEC determines this limit on a site-specific basis. EFSEC locates the point of compliance in the groundwater as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless it approves an alternative point of compliance.

Potential significant industrial user (PSIU) --A potential significant industrial user is defined as an Industrial User that does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;

b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop

photographic film or paper, and car washes).
EFSEC may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation level (QL) -- Also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1,2,or 5) x 10^n, where n is an integer. (64 FR 30417).
ALSO GIVEN AS:
The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

Reasonable potential -- A reasonable potential to cause a water quality violation, or loss of sensitive and/or important habitat.

Responsible corporate officer -- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Sample Maximum -- No sample may exceed this value.

Significant industrial user (SIU) --

1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;

2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug discharge -- Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate that may cause interference or pass through with the POTW or in any way violate the permit conditions or the POTW's regulations and local limits.

Soil scientist -- An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have 5,3,or 1 years, respectively, of professional experience working in the area of agronomy, crops, or soils.

Solid waste -- All putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

Soluble BOD_5 -- Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD_5 test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD_5 test is sufficient to remove the particulate organic fraction.

State waters -- Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based effluent limit -- A permit limit based on the ability of a treatment method to reduce the pollutant.

Total coliform bacteria--A microbiological test, which detects and enumerates the total coliform group of bacteria in water samples.

Total dissolved solids--That portion of total solids in water or wastewater that passes through a specific filter.

Total maximum daily load (TMDL) --A determination of the amount of pollutant that a water body can receive and still meet water quality standards.

Total suspended solids (TSS) -- Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids

may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Upset -- An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water quality-based effluent limit -- A limit imposed on the concentration of an effluent parameter to prevent the concentration of that parameter from exceeding its water quality criterion after discharge into receiving waters.

Appendix D--Technical Calculations

Several of the Excel® spreadsheet tools used to evaluate a discharger's ability to meet Washington State water quality standards can be found in the PermitCalc workbook on Ecology's webpage at: http://www.ecy.wa.gov/programs/wq/permits/guidance.html.

Simple Mixing:

EFSEC uses simple mixing calculations to assess the impacts of certain conservative pollutants, such as the expected increase in fecal coliform bacteria at the edge of the chronic mixing zone boundary. Simple mixing uses a mass balance approach to proportionally distribute a pollutant load from a discharge into the authorized mixing zone. The approach assumes no decay or generation of the pollutant of concern within the mixing zone. The predicted concentration at the edge of a mixing zone (C_{mz}) is based on the following calculation:

$$C_{mz} = Ca + \frac{(Ce - Ca)}{DF}$$

where: Ce = Effluent Concentration
Ca = Ambient Concentration
DF = Dilution Factor

Reasonable Potential Analysis:

The spreadsheets Input 2 – Reasonable Potential, and LimitCalc in Ecology's PermitCalc Workbook determine reasonable potential (to violate the aquatic life and human health water quality standards) and calculate effluent limits. The process and formulas for determining reasonable potential and effluent limits in these spreadsheets are taken directly from the *Technical Support Document for Water Quality-based Toxics Control*, (EPA 505/2-90-001). The adjustment for autocorrelation is from EPA (1996a), and EPA (1996b).

Calculation of Water Quality-Based Effluent Limits:

Water quality-based effluent limits are calculated by the two-value wasteload allocation process as described on page 100 of the TSD (EPA, 1991) and shown below.

1. Calculate the acute wasteload allocation WLA_a by multiplying the acute criteria by the acute dilution factor and subtracting the background factor. Calculate the chronic wasteload allocation (WLA_c) by multiplying the chronic criteria by the chronic dilution factor and subtracting the background factor.

WLA_a = (acute criteria x DF_a) – [(background conc. x (DF_a - 1)]
WLA_c = (chronic criteria x DF_c) – [(background conc. x (DF_c -1)]
where: DF_a = Acute Dilution Factor
DF_c = Chronic Dilution Factor

2. Calculate the long term averages (LTA_a and LTA_c) which will comply with the wasteload allocations WLA_a and WLA_c.

$LTA_a = WLA_a \times e^{[0.5\sigma^2 - z\sigma]}$

where: $\sigma^2 = \ln[CV^2 + 1]$

$z = 2.326$

CV = coefficient of variation = std. dev/mean

$LTA_c = WLA_c \times e^{[0.5\sigma^2 - z\sigma]}$

where: $\sigma^2 = \ln[(CV^2 \div 4) + 1]$

$z = 2.326$

3. Use the smallest LTA of the LTA_a or LTA_c to calculate the maximum daily effluent limit and the monthly average effluent limit.

MDL = Maximum Daily Limit

$MDL = LTA x e^{(Z\sigma - 0.5\sigma^2)}$

where: $\sigma^2 = \ln[CV^2 + 1]$

$z = 2.326$ (99th percentile occurrence)

LTA = Limiting long term average

AML = Average Monthly Limit

$AML = LTA x e^{(Z\sigma_n - 0.5\sigma_n^2)}$

where: $\sigma^2 = \ln[(CV^2 \div n) + 1]$

n = number of samples/month

$z = 1.645$ (95^{th} % occurrence probability)

LTA = Limiting long term average

Appendix E--Response to Comments

[EFSEC will complete this section after the public notice of draft period.]

Issuance Date: _?_
Effective Date: _?_
Expiration Date: _?_

National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA0XXXXXX

State of Washington
Energy Facility Site Evaluation Council

1300 S. Evergreen Park Dr. S.W.
P.O. Box 43172
Olympia, WA

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington

The State of Washington Energy Facility Siting Law
Chapter 80.50 Revised Code of Washington; and

The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

Vancouver Energy Terminal
901 W. Legacy Center Way
Midvale, UT 84047

Vancouver Energy is authorized to discharge in accordance with the Special and General Conditions that follow.

Facility Location: 5501 Northwest Lower River Road, Vancouver, WA 98660	Receiving Water: Columbia River
Treatment Type: Oil/water Separation, filtration and carbon absorption Industry Type: Petroleum and Chemical Bulk Terminal	SIC Code: 5171 NAICS Code: 422710

William L. Lynch
Chair
Washington State Energy Facility Site
Evaluation Council

Date:_____

Table of Contents

Summary of Permit Report Submittals

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report (DMR)	Monthly	XX/XX/XXXX
S3.A	DMR - Priority Pollutant Data - Single Sample Data	Yearly	XX/XX/XXXX
S3.F	Reporting Permit Violations	As necessary	
S4.A	Operations and Maintenance Manual	1/permit cycle	
S4.A	Operations and Maintenance Manual Update or Review Confirmation Letter	Annually	
S4.A	Treatment System Operating Plan	1/permit cycle	XX/XX/XXXX
S4.B	Reporting Bypasses	As necessary	
S5	Application for Permit Renewal	1/permit cycle	
S	Spill Plan	1/permit cycle, updates submitted as necessary	
S	Stormwater Pollution Prevention Plan	1/permit cycle	
Error! Reference source not found.	Off-site Wastewater Disposal Reporting Requireemnts	Annually	
G1	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G7	Notice of Permit Transfer	As necessary	
G10	Duty to Provide Information	As necessary	

Special Conditions

S1. Discharge limits

S1.A. Treated Stormwater discharges

All discharges and activities authorized by this permit must be consistent with the terms and conditions of this permit.

The discharge of any of the following pollutants more frequently than, or at a level in excess of that identified and authorized by this permit violates the terms and conditions of this permit.

Beginning on the effective date of this permit, the Permittee is authorized to discharge treated stormwater to the Colunia River via the Port of Vancouver stormwater outfalls at the permitted locations subject to complying with the following limits:

Effluent Limits: Outfall T4 & T5 **T4: Latitude 45.6375° N Longitude -122.7125° W** **T5: Latitude 45.649722° N Longitude -122.745833° W**		
Parameter	**Average Monthly [a]**	**Maximum Daily [b]**
Total Suspended Solids	30 (mg/L)	45 (mg/L)
Oil and Grease	10 (mg/L)	15 (mg/L)
Benzene	NA	5 (µg/L)
BETX	NA	100 (µg/L)
Copper	NA	10.78 (µg/L)
Zinc	NA	75.91 (µg/L)
	Minimum	**Maximum**
pH	6.0 standard units	9.0 standard units

a	Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured.
b	Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. This does not apply to pH or temperature.

S2. Monitoring requirements

S2.A. Monitoring schedule

The Permittee must monitor in accordance with the following schedule and the requirements specified in **Appendix A**.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Effluent[f]			
Flow	Gallon per day	Once per day	Continuous[a]
pH[b]	Standard Units	Once per day	Grab[c]
Total Suspended Solids	milligrams/L (mg/L)	Once per Month	Grab
Oil and Grease	milligrams/L (mg/L)	Once per Month	Grab
BETX[d]	micrograms/liter (µg/L)	Once per Month	Grab
Benzene	micrograms/liter (µg/L)	Once per Month	Grab
Ethylbenzene	micrograms/liter (µg/L)	Once per Month	Grab
Toulene	micrograms/liter (µg/L)	Once per Month	Grab
Xylene	micrograms/liter (µg/L)	Once per Month	Grab
Copper	micrograms/liter (µg/L)	Once per Month	Grab
Zinc	micrograms/liter (µg/L)	Once per Month	Grab
Priority Pollutants (PP) – Total Metals	µg/L; ng/L for mercury	Once per year	24-Hour composite[e] Grab for mercury
PP – Volatile Organic Compounds	µg/L	Once per year	Grab
PP – Acid-extractable Compounds	µg/L	Once per year	24-Hour composit[e]
PP – Base-neutral Compounds	µg/L	Once per year	24-Hour composite
PP - Dioxin	pg/L	Once per year	24-Hour composite
PP – Pesticides/PCBs	µg/L	Once per year	24-Hour composite

a	Continous means uninterrupted excepet for brief lengths of time for calibration, power failure, or unanticipated equipment reapir or maitenance
b	The Permittee must report the instantaneous maximum and minimum pH monthly. Do not average pH values.
c	Grab means an individual sample collected over a fifteen (15) minute, or less, period.
d	BTEX – Use the test method specified in Appendix A for BTEX and report the total quantity of benzene, toluene, ethylbenzene, and the (m,o,p mixed isomers) xylenes. In addition, report the individual quantities of benzene, toluene, ethylbenzene, and xylene (m,o,p – mixed isomers).
e	24-hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.
f	Efflunet samples must be collected immidately downstream to the water quality vaults prior to mixing with stormwater from other areas of the Port.

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including

representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 (or as applicable in 40 CFR subchapters N [Parts 400–471] or O [Parts 501-503]) unless otherwise specified in this permit. EFSEC may only specify alternative methods for parameters without limits and for those parameters without an EPA approved test method in 40 CFR Part 136.

S2.C. Flow measurement, and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer's recommendation, and approved O&M manual procedures for the device and the wastestream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
    a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.
    b. Must calibrate continuous pH measurement instruments using a grab sample analyzed in the lab with a pH meter calibrated with standard buffers and analyzed within 15 minutes of sampling.
    c. Must calibrate continuous chlorine measurement instruments using a grab sample analyzed in the laboratory within 15 minutes of sampling.
4. Calibrate micro-recording temperature devices, known as thermistors, using protocols from Ecology's Quality Assurance Project Plan Development Tool (*Standard Operating Procedures for Continuous Temperature Monitoring of Fresh Water Rivers and Streams Version 1.0 10/26/2011*). This document is available online at:
   http://www.ecy.wa.gov/programs/eap/qa/docs/ECY_EAP_SOP_Cont_Temp_Mon_Ambient_v1_0EAP080.pdf
   Calibration as specified in this document is not required if the Permittee uses recording devices certified by the manufacturer.
5. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
6. Establish a calibration frequency for each device or instrument in the O&M manual that conforms to the frequency recommended by the manufacturer.

7. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by EFSEC for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. The Permittee must obtain accreditation for conductivity and pH if it must receive accreditation or registration for other parameters.

S3. Reporting and recording requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology and/or EFSEC is a violation of the terms and conditions of this permit.

S3.A. Discharge monitoring reports

The first monitoring period begins on the effective date of the permit (unless otherwise specified). The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.

   To find out more information and to sign up for the Water Quality Permitting Portal go to: http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html

2. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.

3. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:

   a. Submit **monthly** DMRs by the 15th day of the following month.

   b. Submit **annual DMRs**, unless otherwise specified in the permit, by January 15 for the previous calendar year. The annual sampling period is the calendar year.

4. Enter the "No Discharge" reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee

did not discharge wastewater or a specific pollutant during a given monitoring period.

5. Report single analytical values below detection as "less than the detection level (DL)" by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.

6. Report single analytical values between the detection level (DL) and the quantitation level (QL) by entering the estimated value, the code for estimated value/below quantitation limit (j) and any additional information in the comments. Submit a copy of the laboratory report as an attachment using Ecology's WQWebDMR.

7. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A OR S2.

8. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
   a. The reported numeric value for all parameters measured between the detection value and the quantitation value for the sample analysis.
   b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
   c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.

9. Report single-sample grouped parameters (for example: priority pollutants, PAHs, pulp and paper chlorophenolics, TTOs) on the WQWebDMR form and include: sample date, concentration detected, detection limit (DL) (as necessary), and laboratory quantitation level (QL) (as necessary).

   The Permittee must also submit an electronic copy of the laboratory report as an attachment using WQWebDMR. The contract laboratory reports must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.

10. In addition to reporting through WQWebDMR, permittee must submit a signed paper copy of the DMR to the Council at the following address:

    EFSEC
    P.O. Box 43172
    Olympia, WA 98504-3172

Permittees shall submit DMR forms to be received by EFSEC within 15 days following the end of each month.

S3.B. Permit Submittals and Schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (unless otherwise specified in the permit) to submit all other written permit-required reports by the date specified in the permit.

When another permit condition requires submittal of a paper (hard-copy) report, the Permittee must ensure that it is postmarked or received by Ecology and EFSEC no later than the dates specified by this permit. Send these paper reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

And to EFSEC at:

EFSEC
P.O. Box 43172
Olympia, WA 98504-3172

S3.C. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by EFSEC.

S3.D. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.

5. The analytical techniques or methods used.
6. The results of all analyses.

S3.E. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Special Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR unless otherwise specified by Special Condition S2.

S3.F. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology and EFSEC within thirty (30) days of sampling.

a. Immediate reporting

The Permittee must immediately report to EFSEC, the Department of Ecology, and the Department of Health, Drinking Water Program (at the numbers listed below), all:

- Failures of the disinfection system.
- Collection system overflows discharging to a water body used as a source of drinking water.
- Plant bypasses discharging to a waterbody used as a source of drinking water.

EFSEC	360-664-1345	
Ecology Southwest Regional Office	360-407-6300	
Department of Health, Drinking Water Program	800-521-0323	(business hours)
	877-481-4901	(after business hours)
Clark County Public Health	360-397-8215	

b. Twenty-four-hour reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology and EFSEC at the telephone numbers listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.

2. Any unanticipated bypass that causes an exceedance of any effluent limit in the permit (See Part S4.B., "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit (See G.15, "Upset").
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit. This requirement does not include industrial process wastewater overflows to impermeable surfaces which are collected and routed to the treatment works.

c. Report within five days

The Permittee must also submit a written report within five days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The report must contain:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times.
3. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
5. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of written reports

EFSEC may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.G. Other reporting

a. Spills of Oil or Hazardous Materials

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website: http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm.

b. Failure to submit relevant or correct facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to EFSEC and Ecology, it must submit such facts or information promptly.

S3.H. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to EFSEC and/or Ecology inspectors.

S4. Operation and maintenance

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

The Permittee must schedule any facility maintenance, which might require interruption of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out according to the approved O&M manual or as otherwise approved by Ecology.

S4.A. Operations and maintenance (O&M) manual

a. O&M manual submittal and requirements

The Permittee must:

1. Prepare an O&M Manual that meets the requirements of 173-240-150 WAC and submit it to EFSEC for approval by XX/XX.
2. Review the O&M Manual at least annually and confirm this review by letter to EFSEC by XX/XX of each year.
3. Submit to EFSEC for review and approval substantial changes or updates to the O&M Manual whenever it incorporates them into the manual. The

updated O&M Manual must incorporate any applicable pollution reduction measures detailed in the approved Engineering Report.

4. The O&M Manual must be kept available at the permitted facility and all operators must follow the instructions and procedures of this manual.Follow the instructions and procedures of this manual.

b. O&M manual components

In addition to the requirements of WAC 173-240-150, the O&M Manual must be consistent with the guidance in Table G1-3 in the *Criteria for Sewage Works Design* (Orange Book) 2008. The O&M Maual must include:

1. Emergency procedures for plant shutdown and cleanup in the event of a wastewater system upset or failure.
2. A review of system components which if failed could pollute surface water or could impact human health. Provide a procedure for a routine schedule of checking the function of these components.
3. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
4. Any directions to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
5. Wastewater sampling protocols and procedures for compliance with the sampling and reporting requirements in the wastewater discharge permit.
6. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.
7. Treatment plant process control monitoring schedule.

c. Treatment system operating plan

The Permittee must summarize the following information in the initial chapter of the O&M Manual entitled the "Treatment System Operating Plan." For the purposes of this permit, a Treatment System Operating Plan (TSOP) is a concise summary of specifically defined elements of the O&M Manual.

The Permittee must submit an updated Treatment System Operating Plan to EFSEC by XX/XX. The Permittee must update and submit this plan, as necessary, to include requirements for any major modifications of the treatment system.

The TSOP must not conflict with the O&M Manual and must include the following information:

1. A baseline operating condition, which describes the operating parameters and procedures, used to meet the effluent limits of S1 at the production levels used in developing these limits.
2. In the event of production rates, which are below the baseline levels used to establish these limits, the plan must describe the operating procedures and conditions needed to maintain design treatment efficiency. The monitoring and reporting must be described in the plan.
3. In the event of an upset, due to plant maintenance activities, severe stormwater events, start ups or shut downs, or other causes, the plan must describe the operating procedures and conditions employed to mitigate the upset. The monitoring and reporting must be described in the plan.
4. A description of any regularly scheduled maintenance or repair activities at the facility which would affect the volume or character of the wastes discharged to the wastewater treatment system and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

S4.B. Bypass procedures

A bypass is the intentional diversion of waste streams from any portion of a treatment facility. This permit prohibits all bypasses except when the bypass is for essential maintenance, as authorized in special condition S4.B.1, or is approved by EFESC as an anticipated bypass following the procedures in S4.B.2.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

   This permit allows bypasses for essential maintenance of the treatment system when necessary to ensure efficient operation of the system. The Permittee may bypass the treatment system for essential maintenance only if doing so does not cause violations of effluent limits. The Permittee is not required to notify EFSEC when bypassing for essential maintenance. However the Permittee must comply with the monitoring requirements specified in special condition S2.B.

2. Anticipated bypasses for non-essential maintenance

   EFSEC may approve an anticipated bypass under the conditions listed below. This permit prohibits any anticipated bypass that is not approved through the following process.

   a. If a bypass is for non-essential maintenance, the Permittee must notify EFSEC at least ten (10) days before the planned date of bypass. The notice must contain:

      - A description of the bypass and the reason the bypass is necessary.

- An analysis of all known alternatives which would eliminate, reduce, or mitigate the potential impacts from the proposed bypass.
- A cost-effectiveness analysis of alternatives.
- The minimum and maximum duration of bypass under each alternative.
- A recommendation as to the preferred alternative for conducting the bypass.
- The projected date of bypass initiation.
- A statement of compliance with SEPA.
- A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
- Details of the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

b. For probable construction bypasses, the Permittee must notify EFSEC of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.

c. EFSEC will determine if the Permittee has met the conditions of special condition S4.B.2 a and b and consider the following prior to issuing a determination letter, an administrative order, or a permit modification as appropriate for an anticipated bypass:

- If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.
- If the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- If feasible alternatives to the bypass exist, such as:
  - The use of auxiliary treatment facilities.
  - Retention of untreated wastes.
  - Stopping production.
  - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to

prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.

- Transport of untreated wastes to another treatment facility.

S5. Application for permit renewal or modification for facility changes

The Permittee must reapply by submitting an NOI to EFSEC and follow the requirements of WAC 463-76-061.

S6. Spill control plan

S.A. Spill control plan submittals and requirements

The Permittee must:

1. Submit to EFSEC an update to the existing spill control plan by XX/XX.
2. Submit to EFSEC a spill control plan for the prevention, containment, and control of spills or unplanned releases of pollutants by XX/XX.
3. Review the plan at least annually and update the spill plan as needed.
4. Send changes to the plan to EFSEC.
5. Follow the plan and any supplements throughout the term of the permit.

S.B. Spill control plan components

The spill control plan must include the following:

1. A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled, or otherwise released into the environment, designate as Dangerous Waste (DW) or Extremely Hazardous Waste (EHW) by the procedures set forth in WAC 173-303-070. Include other materials used and/or stored on-site which may become pollutants or cause pollution upon reaching state's waters.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A description of the reporting system the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of operator training to implement the plan.

The Permittee may submit plans and manuals required by 40 CFR Part 112, contingency plans required by Chapter 173-303 WAC, or other plans required by other agencies, which meet the intent of this section.

S7. Stormwater pollution prevention plan

A. General Requirements

1. The Permittee shall develop and implement a SWPPP for the permitted *facility* as follows:

2. The SWPPP shall specify the *Best Management Practices* (BMPs) necessary to:

   a. Provide *all known, available, and reasonable methods of prevention, control, and treatment (AKART)* of *stormwater pollution.*

   b. Ensure the *discharge* does not cause or contribute to a violation of the *Water Quality Standards.*

   c. Comply with applicable federal technology-based treatment requirements under *40 CFR* 125.3.

3. Proper Selection and Use of *Stormwater Management Manuals (SWMM)*:

   BMPs shall be consistent with:

   a. *Stormwater Management Manual* for Western Washington (*2012* edition), for sites west of the crest of the Cascade Mountains; or

   b. *Stormwater Management Manual* for Eastern Washington (*2004* edition), for sites east of the crest of the Cascade Mountains; or

   c. Revisions to the manuals in S7.A.3.a & b., or other *stormwater* management guidance documents or manuals which provide an equivalent level of *pollution* prevention, that are approved by *Ecology* and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230. For purposes of this section, the documents listed in Appendix 10 of the August 1, 2013 Phase I Municipal Stormwater Permit are hereby incorporated into this permit; or

   d. Documentation in the SWPPP that the BMPs selected are *demonstrably equivalent* to practices contained in stormwater technical manuals approved by *Ecology*, including the proper selection, implementation, and maintenance of all applicable and appropriate *best management practices* for on-site *pollution* control.

4. Update of the SWPPP

   a. The Permittee shall modify the SWPPP if the owner/operator or the applicable local or state regulatory authority determines during inspections or investigations that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing *pollutants* in *stormwater* discharges from the site. The Permittee shall modify the SWPPP:

      i. As necessary to include additional or modified BMPs designed to correct problems identified.

ii. To correct the deficiencies identified in writing from *EFSEC* within 30 days of notice.

b. The Permittee shall modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the *facility* that significantly changes the nature of *pollutant*s discharged in *stormwater* from the *facility*, or significantly increases the quantity of pollutants discharged.

5. Other *Pollution Control Plans*

The Permittee may incorporate by reference applicable portions of plans prepared for other purposes at their *facility*. Plans or portions of plans incorporated by reference into a SWPPP become enforceable requirements of this permit .

6. Signatory Requirements

The Permittee shall sign and certify all SWPPPs in accordance with General Condition G2.

B. Specific SWPPP Requirements

The SWPPP shall contain a site map, a detailed assessment of the *facility*, a detailed description of the BMPs, Spill Prevention and Emergency Cleanup Plan, and a sampling plan. The Permittee shall identify any parts of the SWPPP which the *facility* wants to claim as Confidential Business Information.

1. The site map shall identify:

a. The scale or include relative distances between significant structures and drainage systems.

b. Significant features.

c. The *stormwater* drainage and *discharge* structures and identify, by name, any other party other than the Permittee that owns any *stormwater* drainage or discharge structures.

d. The *stormwater* drainage areas for each *stormwater discharge* point off-site (including discharges to *ground water*) and assign a unique identifying number for each discharge point.

e. Each sampling location by unique identifying number.

f. Paved areas and buildings.

g. Areas of *pollutant* contact (actual or potential) associated with specific industrial activities.

h. Conditionally approved non-*stormwater* discharges (Condition S5.D).

i. Surface water locations (including wetlands and drainage ditches).

j. Areas of existing and potential soil *erosion* that could result in the discharge of a *significant amount* of turbidity, sediment or other pollutants.

k. *Vehicle maintenance* areas.

l. Lands and waters adjacent to the site that may be helpful in identifying *discharge* points or drainage routes.

2. The *facility* assessment shall include a description of the *facility*; an inventory of *facility* activities and equipment that contribute to or have the potential to contribute any *pollutant*s to *stormwater*; and, an inventory of materials that contribute to or have the potential to contribute pollutants to *stormwater*.

   a. The *facility* description shall describe:

      i. The industrial activities conducted at the site.

      ii. *Regular business hours* and seasonal variations in business hours or industrial activities.

      iii. The general layout of the *facility* including buildings and storage of raw materials, and the flow of goods and materials through the *facility*.

   b. The inventory of industrial activities shall identify all areas associated with industrial activities that have been or may potentially be sources of *pollutant*s, including, but not limited to, the following:

      i. Loading and unloading of dry bulk materials or liquids.

      ii. Outdoor storage of materials or products.

      iii. Outdoor manufacturing and processing.

      iv. On-site dust or particulate generating processes.

      v. On-site waste treatment, storage, or disposal.

      vi. *Vehicle* and equipment fueling, maintenance, and/or cleaning (includes washing).

      vii. Roofs or other surfaces exposed to *air emissions* from a manufacturing building or a process area.

      viii. Roofs or other surfaces composed of materials that may be mobilized by *stormwater* (e.g., galvanized roofs, galvanized fences).

   c. The inventory of materials shall list:

      i. The types of materials handled at the site that potentially may be exposed to precipitation or *runoff* and could result in *stormwater pollution*.

      ii. A short narrative for each material describing the potential of the *pollutant* to be present in *stormwater* discharges. The Permittee shall update this narrative when data become available to verify the presence or absence of these pollutants.

      iii. A narrative description of any potential sources of *pollutant*s from past activities, materials and spills that were previously handled, treated, stored, or disposed of in a manner to allow ongoing exposure to

stormwater. Include the method and location of on-site storage or disposal. List significant spills and significant leaks of toxic or hazardous pollutants.

3. The SWPPP shall identify specific individuals by name or by title within the organization (*pollution* prevention team) whose responsibilities include: SWPPP development, implementation, maintenance, and modification.

4. *Best Management Practices* (BMPs)

   a. General BMP Requirements

      The Permittee shall describe each BMP selected to eliminate or reduce the potential to contaminate *stormwater* and prevent violations of *water quality standards*. The SWPPP must explain in detail how and where the selected BMPs will be implemented.

   b. The Permittee shall include each of the following mandatory BMPs in the SWPPP and implement the BMPs. The Permittee may omit individual BMPs if site conditions render the BMP unnecessary, infeasible, or the Permittee provides alternative and equally effective BMPs; if the Permittee clearly justifies each BMP omission in the SWPPP.

      i. Operational *Source Control BMPs*

         1) The SWPPP shall include the *Operational Source Control BMPs* listed as "applicable" in *Ecology*'s SWMMs, or other guidance documents or manuals approved in accordance with S8.A.3.c.

         2) Good Housekeeping: The SWPPP shall include BMPs that define ongoing maintenance and cleanup, as appropriate, of areas which may contribute *pollutant*s to *stormwater* discharges. The SWPPP shall include the schedule/frequency for completing each housekeeping task, based upon *industrial activity*, sampling results and observations made during inspections. The Permittee shall:

            a) Vacuum paved surfaces with a vacuum sweeper (or a sweeper with a vacuum attachment) to remove accumulated *pollutant*s a minimum of once per quarter.

            b) Identify and control all on-site sources of dust to minimize *stormwater* contamination from the deposition of dust on areas exposed to precipitation.

            c) Inspect and maintain bag houses monthly to prevent the escape of dust from the system. Immediately remove any accumulated dust at the base of exterior bag houses.

            d) Keep all dumpsters under cover or fit with a lid that must remain closed when not in use.

3) Preventive Maintenance: The SWPPP shall include BMPs to inspect and maintain the *stormwater* drainage, source controls, treatment systems (if any), and plant equipment and systems that could fail and result in contamination of *stormwater*. The SWPPP shall include the schedule/frequency for completing each maintenance task. The Permittee must:

   a) Clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe.

   b) Maintain ponds, tanks/vaults, catch basins, swales, filters, oil/water separators, drains, and other stormwater drainage/treatment facilities in accordance with the Maintenance Standards set forth in the applicable Stormwater Management Manual (SWMM), other guidance documents or manuals approved in accordance with S7.A.3.c., demonstrably equivalent BMPs per S7.A.3.d., or an O&M Manual submitted to EFSEC in accordance with S8.D.

   c) Inspect all equipment and vehicles during monthly site inspections for leaking fluids such as oil, antifreeze, etc. Take leaking equipment and *vehicles* out of service or prevent leaks from spilling on the ground until repaired.

   d) Immediately clean up spills and leaks (e.g., using absorbents, vacuuming) to prevent the *discharge* of *pollutant*s.

4) Spill Prevention and Emergency Cleanup Plan (SPECP): The SWPPP shall include a SPECP that includes BMPs to prevent spills that can contaminate *stormwater*. The SPECP shall specify BMPs for *material handling* procedures, storage requirements, cleanup equipment and procedures, and spill logs, as appropriate. The Permittee shall:

   a) Store all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater.

   b) Prevent precipitation from accumulating in containment areas with a roof or equivalent structure or include a plan on how it will manage and dispose of accumulated water if a containment area cover is not practical.

   c) Locate spill kits within 25 feet of all stationary fueling stations, fuel transfer stations, mobile fueling units, and used oil storage/transfer stations. At a minimum, spill kits shall include:

i) Oil absorbents capable of absorbing 15 gallons of fuel.

ii) A storm drain plug or cover kit.

iii) A non-water containment boom, a minimum of 10 feet in length with a 12-gallon absorbent capacity.

iv) A non-metallic shovel.

v) Two five-gallon buckets with lids.

d) Not lock shut-off fueling nozzles in the open position. Do not "topoff" tanks being refueled.

e) Block, plug or cover storm drains that receive *runoff* from areas where fueling, during fueling.

f) Use drip pans or equivalent containment measures during all petroleum transfer operations.

g) Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone *vehicle*s and equipment awaiting maintenance to protected areas).

h) Use drip pans and absorbents under or around leaky *vehicles* and equipment or store indoors where feasible. Drain fluids from equipment and *vehicles* prior to on-site storage or disposal.

i) Maintain a spill log that includes the following information for chemical and petroleum spills: date, time, amount, location, and reason for spill; date/time cleanup completed, notifications made and staff involved.

5) Employee Training: The SWPPP shall include BMPs to provide SWPPP training for employees who have duties in areas of industrial activities subject to this permit. At a minimum, the training plan shall include:

a) The content of the training.

i) An overview of what is in the SWPPP.

ii) How employees make a difference in complying with the SWPPP and preventing contamination of *stormwater*.

iii) Spill response procedures, good housekeeping, maintenance requirements, and material management practices.

b) How the Permittee will conduct training.

c) The frequency/schedule of training. The Permittee shall train employees annually, at a minimum.

d) A log of the dates on which specific employees received training.

6) Inspections and Recordkeeping: The SWPPP shall include documentation of procedures to ensure compliance with permit requirements for inspections and recordkeeping. At a minimum, the SWPPP shall:

   a) Identify *facility* personnel who will inspect designated equipment and *facility* areas as required in Condition S7.

   b) Contain a visual inspection report or check list that includes all items required by Condition S7.C.

   c) Provide a tracking or follow-up procedure to ensure that a report is prepared and any appropriate action taken in response to visual inspections.

   d) Define how the Permittee will comply with signature requirements and records retention identified in the Reporting and Recordkeeping Requirements.

   e) Include a certification of compliance with the SWPPP and permit for each inspection using the language in S7.C.1.c.

   f) Include all inspection reports completed by the Permittee (S7.C).

7) *Illicit Discharges*: The SWPPP shall include measures to identify and eliminate the *discharge* of *process wastewater*, *domestic wastewater*, *noncontact cooling water*, and other *illicit discharges*, to *stormwater* sewers, or to surface waters and *ground waters of the state*. The Permittee can find BMPs to identify and eliminate *illicit discharges* in Volume IV of *Ecology*'s SWMM for Western Washington and Chapter 8 of the SWMM for Eastern Washington.

   Water from washing *vehicles* or equipment, steam cleaning and/or pressure washing is considered *process wastewater*. The Permittee must not allow this process wastewater to comingle with *stormwater* or enter storm drains; and must collect in a tank for off-site disposal, or *discharge* it to a *sanitary sewer*, with written approval from the local sewage authority.

ii. Structural *Source Control BMPs*

1) The SWPPP shall include the *Structural Source Control BMPs* listed as "applicable" in *Ecology*'s SWMMs, or other guidance documents or manuals approved in accordance with S8.A.3.c.

2) The SWPPP shall include BMPs to minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and *runoff* by either locating these industrial materials and activities inside or protecting them with storm resistant coverings.

Permittees shall:

a) Use grading, berming, or curbing to prevent *runoff* of contaminated flows and divert run-on away from these areas.

b) Perform all cleaning operations indoors, under cover, or in bermed areas that prevent *stormwater runoff* and run-on, also that capture any overspray.

c) Ensure that all washwater drains to a collection system that directs the washwater to further treatment or storage and not to the *stormwater drainage system*.

iii. *Treatment BMP*s

The Permittee shall:

1) Use *Treatment BMPs* consistent with the applicable documents referenced in Condition S7.A.3.

2) Employ oil/water separators, booms, skimmers, or other methods to eliminate or minimize oil and grease contamination of *stormwater* discharges.

3) Obtain *EFSEC* approval before beginning construction/installation of all *treatment BMP*s that include the addition of chemicals to provide treatment.

iv. *Stormwater* Peak *Runoff* Rate and Volume Control BMPs

Facilities with *new development* or *redevelopment* shall evaluate whether flow control BMPs are necessary to satisfy the state's AKART requirements, and prevent violations of water quality standards.

v. *Erosion and Sediment Control BMPs*

The SWPPP shall include BMPs necessary to prevent the *erosion* of soils and other earthen materials (crushed rock/gravel, etc.), control off-site *sedimentation,* and prevent violations of *water quality standards.* The Permittee shall implement and maintain:

1) *Sediment* control BMPs such as *detention* or retention ponds or traps, vegetated filter strips, bioswales, or other permanent *sediment* control BMPs to minimize *sediment* loads in *stormwater* discharges.

2) Filtration BMPs to remove solids from catch basins, sumps or other *stormwater* collection and conveyance system components (catch basin filter inserts, filter socks, modular canisters, sand filtration, centrifugal separators, etc.).

5. Sampling Plan

The SWPPP shall include a sampling plan. The plan shall:

a. Identify points of *discharge* to surface water, *storm sewers*, or discrete *ground water* infiltration locations, such as dry wells or *detention* ponds.

b. Include documentation of why applicable parameters are not sampled at each *discharge* point:

   i. Location of which *discharge* points the Permittee does not sample applicable parameters because the *pollutant* concentrations are substantially identical to a discharge point being sampled.

   ii. General industrial activities conducted in the drainage area of each *discharge* point.

   iii. *Best Management Practices* conducted in the drainage area of each discharge point.

   iv. Exposed materials located in the drainage area of each *discharge* point that are likely to be significant contributors of *pollutants* to *stormwater discharges*.

   v. Impervious surfaces in the drainage area that could affect the percolation of *stormwater runoff* into the ground (e.g., asphalt, crushed rock, grass).

   vi. Reasons why the Permittee expects the *discharge* points to discharge substantially identical effluents.

c. Identify each sampling location by its unique identifying number such as A1, A2.

d. Identify staff responsible for conducting *stormwater* sampling.

e. Specify procedures for sample collection and handling.

f. Specify procedures for sending samples to a laboratory.

g. Identify parameters for analysis, holding times and preservatives, laboratory *quantitation levels,* and analytical methods.

h. Specify the procedure for submitting results to *EFSEC*.

S8. Off-site Wastewater Disposal Reporting Requirements

The Permittee is authorized to dispose of wastewater generated onsite, at an approved off-site wastewater treatment facility. The Permittee must maintain records of the off-site waste streams treated at the wastewater facility. The origin, volume, known waste constituents, any analytical data, and date of shipment must be recorded. This information must be available to an authorized representative of EFSEC and/or Ecology per General Condition G2. An annual summary of the off-site wastewater accepted and treated by the treatment facility must be submitted by XX/XX.

General Conditions

G1. Signatory requirements

1. All applications submitted to EFSEC must be signed and certified.

   a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

      - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
      - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   b. In the case of a partnership, by a general partner.

   c. In the case of sole proprietorship, by the proprietor.

   d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

   Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by EFSEC must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to EFSEC.

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph G1.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G1.2, above, must be submitted to EFSEC prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this section must make the following certification:

   "I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. Right of inspection and entry

The Permittee must allow an authorized representative of EFSEC and/or Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 463-76-062 according to the procedures of 40 CFR 124.5 and WAC 463-76-062 as applicable.

G4. Reporting planned changes

The Permittee must, as soon as possible, but no later than one hundred eighty (180) days prior to the proposed changes, give notice to EFSEC of planned physical alterations or

additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
2. A significant change in the nature or an increase in quantity of pollutants discharged.
3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to EFSEC for approval in accordance with WAC 463-76. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by EFSEC. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

Transfer of coverage may only be authorized by the EFSEC Council.

G8. Reduced production for compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. Duty to provide information

The Permittee must submit to EFSEC and Ecology, within a reasonable time, all information which EFSEC may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to EFSEC and/or Ecology upon request, copies of records required to be kept by this permit.

G11. Other requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. Additional monitoring

EFSEC may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. Payment of fees

The Permittee must submit payment of fees for costs incurred associated with this permit as assessed by EFSEC.

G14. Penalties for violating permit conditions

Enforcement actions for violations of this permit, including the issuance of penalties, shall be consistent with RCW 80.50.150, RCW 80.50.155, RCW 90.48, WAC 463-70 and WAC 463-76. Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. Upset

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Special Condition S3.F.
4. The Permittee complied with any remedial measures required under S3.F of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. Toxic pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. Penalties for tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $25,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. Reporting requirements applicable to existing manufacturing, commercial, mining, and silvicultural dischargers

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify EFSEC as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
    a. One hundred micrograms per liter (100 µg/L).
    b. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.
    c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
    d. The level established by the Council in accordance with 40 CFR 122.44(f).

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
    a. Five hundred micrograms per liter (500µg/L).
    b. One milligram per liter (1 mg/L) for antimony.
    c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
    d. The level established by the Council in accordance with 40 CFR 122.44(f).

G21. Compliance schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

APPENDIX A

LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to EFSEC and Ecology with appropriate laboratory documentation.

When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology's Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.

EFSEC added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

The lists below include conventional pollutants (as defined in CWA section 502(6) and 40 CFR Part 122.), toxic or priority pollutants as defined in CWA section 307(a)(1) and listed in 40 CFR Part 122 Appendix D, 40 CFR Part 401.15 and 40 CFR Part 423 Appendix A), and nonconventionals. 40 CFR Part 122 Appendix D (Table V) also identifies toxic pollutants and hazardous substances which are required to be reported by dischargers if expected to be present. This permit appendix A list does not include those parameters. The list also includes pulp and paper pollutants identified in 40 CFR Part 430 and the dioxin and furan congeners identified using EPA Method 1613.

CONVENTIONAL POLLUTANTS

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
Biochemical Oxygen Demand		SM5210-B		2 mg/L
Biochemical Oxygen Demand, Soluble		SM5210-B [3]		2 mg/L
Fecal Coliform		SM 9221E,9222	N/A	Specified in method - sample aliquot dependent
Oil and Grease (HEM) (Hexane Extractable Material)		1664 A or B	1,400	5,000
pH		SM4500-H^+ B	N/A	N/A
Total Suspended Solids		SM2540-D		5 mg/L

NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
Alkalinity, Total		SM2320-B		5 mg/L as CaCO3
Aluminum, Total	7429-90-5	200.8	2.0	10
Ammonia, Total (as N)		SM4500-NH3-B and C/D/E/G/H		20
Barium Total	7440-39-3	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)		EPA SW 846 8021/8260	1	2
Boron, Total	7440-42-8	200.8	2.0	10.0
Chemical Oxygen Demand		SM5220-D		10 mg/L
Chloride		SM4500-Cl B/C/D/E and SM4110 B		Sample and limit dependent
Chlorine, Total Residual		SM4500 Cl G		50.0
Cobalt, Total	7440-48-4	200.8	0.05	0.25

NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
Color		SM2120 B/C/E		10 color units
Dissolved oxygen		SM4500-OC/OG		0.2 mg/L
Flow		Calibrated device		
Fluoride	16984-48-8	SM4500-F E	25	100
Hardness, Total		SM2340B		200 as CaCO3
Iron, Total	7439-89-6	200.7	12.5	50
Magnesium, Total	7439-95-4	200.7	10	50
Manganese, Total	7439-96-5	200.8	0.1	0.5
Molybdenum, Total	7439-98-7	200.8	0.1	0.5
Nitrate + Nitrite Nitrogen (as N)		SM4500-NO3- E/F/H		100
Nitrogen, Total Kjeldahl (as N)		SM4500-N_{org}B/C and SM4500NH_3-B/C/D/EF/G/H		300
NWTPH Dx [4]		Ecology NWTPH Dx	250	250
NWTPH Gx [5]		Ecology NWTPH Gx	250	250
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10
Salinity		SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids		SM2540 -F		Sample and limit dependent
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Sulfate (as mg/L SO_4)		SM4110-B		0.2 mg/L
Sulfide (as mg/L S)		SM4500-S^2F/D/E/G		0.2 mg/L
Sulfite (as mg/L SO_3)		SM4500-SO3B		2 mg/L
Temperature (max. 7-day avg.)		Analog recorder or Use micro-recording devices known as thermistors		0.2° C
Tin, Total	7440-31-5	200.8	0.3	1.5

NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
Titanium, Total	7440-32-6	200.8	0.5	2.5
Total Coliform		SM 9221B, 9222B, 9223B	N/A	Specified in method - sample aliquot dependent
Total Organic Carbon		SM5310-B/C/D		1 mg/L
Total dissolved solids		SM2540 C		20 mg/L

PRIORITY POLLUTANTS	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL)[1]** *µg/L unless specified*	**Quantitation Level (QL) [2]** *µg/L unless specified*
METALS, CYANIDE & TOTAL PHENOLS					
Antimony, Total	114	7440-36-0	200.8	0.3	1.0
Arsenic, Total	115	7440-38-2	200.8	0.1	0.5
Beryllium, Total	117	7440-41-7	200.8	0.1	0.5
Cadmium, Total	118	7440-43-9	200.8	0.05	0.25
Chromium (hex) dissolved	119	18540-29-9	SM3500-Cr C	0.3	1.2
Chromium, Total	119	7440-47-3	200.8	0.2	1.0
Copper, Total	120	7440-50-8	200.8	0.4	2.0
Lead, Total	122	7439-92-1	200.8	0.1	0.5
Mercury, Total	123	7439-97-6	1631E	0.0002	0.0005
Nickel, Total	124	7440-02-0	200.8	0.1	0.5
Selenium, Total	125	7782-49-2	200.8	1.0	1.0
Silver, Total	126	7440-22-4	200.8	0.04	0.2
Thallium, Total	127	7440-28-0	200.8	0.09	0.36
Zinc, Total	128	7440-66-6	200.8	0.5	2.5
Cyanide, Total	121	57-12-5	335.4	5	10
Cyanide, Weak Acid Dissociable	121		SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	121		SM4500-CN G	5	10
Phenols, Total	65		EPA 420.1		50

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL)[2] *µg/L unless specified*
ACID COMPOUNDS					
2-Chlorophenol	24	95-57-8	625	1.0	2.0
2,4-Dichlorophenol	31	120-83-2	625	0.5	1.0
2,4-Dimethylphenol	34	105-67-9	625	0.5	1.0
4,6-dinitro-o-cresol (2-methyl-4,6,-dinitrophenol)	60	534-52-1	625/1625B	2.0	4.0
2,4 dinitrophenol	59	51-28-5	625	1.5	3.0
2-Nitrophenol	57	88-75-5	625	0.5	1.0
4-Nitrophenol	58	100-02-7	625	1.0	2.0
Parachlorometa cresol (4-chloro-3-methylphenol)	22	59-50-7	625	1.0	2.0
Pentachlorophenol	64	87-86-5	625	0.5	1.0
Phenol	65	108-95-2	625	2.0	4.0
2,4,6-Trichlorophenol	21	88-06-2	625	2.0	4.0

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL)[2] *µg/L unless specified*
VOLATILE COMPOUNDS					
Acrolein	2	107-02-8	624	5	10
Acrylonitrile	3	107-13-1	624	1.0	2.0
Benzene	4	71-43-2	624	1.0	2.0
Bromoform	47	75-25-2	624	1.0	2.0
Carbon tetrachloride	6	56-23-5	624/601 or SM6230B	1.0	2.0
Chlorobenzene	7	108-90-7	624	1.0	2.0
Chloroethane	16	75-00-3	624/601	1.0	2.0
2-Chloroethylvinyl Ether	19	110-75-8	624	1.0	2.0
Chloroform	23	67-66-3	624 or SM6210B	1.0	2.0
Dibromochloromethane (chlordibromomethane)	51	124-48-1	624	1.0	2.0

PRIORITY POLLUTANTS	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL)[1]** *µg/L unless specified*	**Quantitation Level (QL)[2]** *µg/L unless specified*
VOLATILE COMPOUNDS					
1,2-Dichlorobenzene	25	95-50-1	624	1.9	7.6
1,3-Dichlorobenzene	26	541-73-1	624	1.9	7.6
1,4-Dichlorobenzene	27	106-46-7	624	4.4	17.6
Dichlorobromomethane	48	75-27-4	624	1.0	2.0
1,1-Dichloroethane	13	75-34-3	624	1.0	2.0
1,2-Dichloroethane	10	107-06-2	624	1.0	2.0
1,1-Dichloroethylene	29	75-35-4	624	1.0	2.0
1,2-Dichloropropane	32	78-87-5	624	1.0	2.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene)[6]	33	542-75-6	624	1.0	2.0
Ethylbenzene	38	100-41-4	624	1.0	2.0
Methyl bromide (Bromomethane)	46	74-83-9	624/601	5.0	10.0
Methyl chloride (Chloromethane)	45	74-87-3	624	1.0	2.0
Methylene chloride	44	75-09-2	624	5.0	10.0
1,1,2,2-Tetrachloroethane	15	79-34-5	624	1.9	2.0
Tetrachloroethylene	85	127-18-4	624	1.0	2.0
Toluene	86	108-88-3	624	1.0	2.0
1,2-Trans-Dichloroethylene (Ethylene dichloride)	30	156-60-5	624	1.0	2.0
1,1,1-Trichloroethane	11	71-55-6	624	1.0	2.0
1,1,2-Trichloroethane	14	79-00-5	624	1.0	2.0
Trichloroethylene	87	79-01-6	624	1.0	2.0
Vinyl chloride	88	75-01-4	624/SM6200B	1.0	2.0

PRIORITY POLLUTANTS	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL)[1]** *µg/L unless specified*	**Quantitation Level (QL)[2]** *µg/L unless specified*
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)					
Acenaphthene	1	83-32-9	625	0.2	0.4
Acenaphthylene	77	208-96-8	625	0.3	0.6
Anthracene	78	120-12-7	625	0.3	0.6
Benzidine	5	92-87-5	625	20	40
Benzyl butyl phthalate	67	85-68-7	625	0.3	0.6
Benzo(*a*)anthracene	72	56-55-3	625	0.3	0.6
Benzo(b)fluoranthene (3,4-benzofluoranthene)[7]	74	205-99-2	610/625	0.8	1.6
Benzo(j)fluoranthene[7]		**205-82-3**	625	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene)[7]	75	207-08-9	610/625	0.8	1.6
Benzo(r,s,t)pentaphene		**189-55-9**	625	1.3	5.0
Benzo(*a*)pyrene	73	50-32-8	610/625	0.5	1.0
Benzo(*ghi*)Perylene	79	191-24-2	610/625	0.5	1.0
Bis(2-*chloroethoxy*)methane	43	111-91-1	625	5.3	21.2
Bis(2-*chloroethyl*)ether	18	111-44-4	611/625	0.3	1.0
Bis(2-*chloroisopropyl*)ether	42	39638-32-9	625	0.5	1.0
Bis(2-*ethylhexyl*)phthalate	66	117-81-7	625	0.3	1.0
4-Bromophenyl phenyl ether	41	101-55-3	625	0.3	0.5
2-Chloronaphthalene	20	91-58-7	625	0.3	0.6
4-Chlorophenyl phenyl ether	40	7005-72-3	625	0.3	0.5
Chrysene	76	218-01-9	610/625	0.3	0.6
Dibenzo (a,h)acridine		**226-36-8**	610M/625M	2.5	10.0
Dibenzo (a,j)acridine		**224-42-0**	610M/625M	2.5	10.0
Dibenzo(a-*h*)anthracene (1,2,5,6-dibenzanthracene)	82	53-70-3	625	0.8	1.6
Dibenzo(a,e)pyrene		192-65-4	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene		189-64-0	625M	2.5	10.0
3,3-Dichlorobenzidine	28	91-94-1	605/625	2.0	14.0
Diethyl phthalate	70	84-66-2	625	1.9	7.6
Dimethyl phthalate	71	131-11-3	625	1.6	6.4

PRIORITY POLLUTANTS	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL)[1]** *µg/L unless specified*	**Quantitation Level (QL)[2]** *µg/L unless specified*
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)					
Di-n-butyl phthalate	68	84-74-2	625	0.5	1.0
2,4-dinitrotoluene	35	121-14-2	609/625	1.0	2.0
2,6-dinitrotoluene	36	606-20-2	609/625	1.0	2.0
Di-n-octyl phthalate	69	117-84-0	625	0.3	0.6
1,2-Diphenylhydrazine (*as Azobenzene*)	37	122-66-7	1625B	5.0	20
Fluoranthene	39	206-44-0	625	0.3	0.6
Fluorene	80	86-73-7	625	0.3	0.6
Hexachlorobenzene	9	118-74-1	612/625	0.3	0.6
Hexachlorobutadiene	52	87-68-3	625	0.5	1.0
Hexachlorocyclopentadiene	53	77-47-4	1625B/625	2.0	4.0
Hexachloroethane	12	67-72-1	625	0.5	1.0
Indeno(*1,2,3-cd*)Pyrene	83	193-39-5	610/625	0.5	1.0
Isophorone	54	78-59-1	625	0.5	1.0
3-Methyl cholanthrene		**56-49-5**	625	2.0	8.0
Naphthalene	55	91-20-3	625	0.4	0.75
Nitrobenzene	56	98-95-3	625	0.5	1.0
N-Nitrosodimethylamine	61	62-75-9	607/625	2.0	4.0
N-Nitrosodi-n-propylamine	63	621-64-7	607/625	0.5	1.0
N-Nitrosodiphenylamine	62	86-30-6	625	1.0	2.0
Perylene		**198-55-0**	625	1.9	7.6
Phenanthrene	81	85-01-8	625	0.3	0.6
Pyrene	84	129-00-0	625	0.3	0.6
1,2,4-Trichlorobenzene	8	120-82-1	625	0.3	0.6

PRIORITY POLLUTANT	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL)[1]** *µg/L unless specified*	**Quantitation Level (QL) [2]** *µg/L unless specified*
DIOXIN					
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (2,3,7,8 TCDD)	129	1746-01-6	1613B	1.3 pg/L	5 pg/L

PRIORITY POLLUTANTS	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL)[1]** *µg/L unless specified*	**Quantitation Level (QL) [2]** *µg/L unless specified*
PESTICIDES/PCBs					
Aldrin	89	309-00-2	608	0.025	0.05
alpha-BHC	102	319-84-6	608	0.025	0.05
beta-BHC	103	319-85-7	608	0.025	0.05
gamma-BHC (Lindane)	104	58-89-9	608	0.025	0.05
delta-BHC	105	319-86-8	608	0.025	0.05
Chlordane [8]	91	57-74-9	608	0.025	0.05
4,4'-DDT	92	50-29-3	608	0.025	0.05
4,4'-DDE	93	72-55-9	608	0.025	0.05
4,4' DDD	94	72-54-8	608	0.025	0.05
Dieldrin	90	60-57-1	608	0.025	0.05
alpha-Endosulfan	95	959-98-8	608	0.025	0.05
beta-Endosulfan	96	33213-65-9	608	0.025	0.05
Endosulfan Sulfate	97	1031-07-8	608	0.025	0.05
Endrin	98	72-20-8	608	0.025	0.05
Endrin Aldehyde	99	7421-93-4	608	0.025	0.05
Heptachlor	100	76-44-8	608	0.025	0.05
Heptachlor Epoxide	101	1024-57-3	608	0.025	0.05
PCB-1242 [9]	106	53469-21-9	608 - Modified	0.05	0.2
PCB-1254	107	11097-69-1	608 - Modified	0.05	0.2
PCB-1221	108	11104-28-2	608 - Modified	0.05	0.2

PRIORITY POLLUTANTS	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL)[1]** *µg/L unless specified*	**Quantitation Level (QL) [2]** *µg/L unless specified*
PESTICIDES/PCBs					
PCB-1232	109	11141-16-5	608 - Modified	0.05	0.2
PCB-1248	110	12672-29-6	608 - Modified	0.05	0.2
PCB-1260	111	11096-82-5	608 - Modified	0.05	0.2
PCB-1016 [9]	112	12674-11-2	608 - Modified	0.05	0.2
Toxaphene	113	8001-35-2	608	0.24	0.5

PULP & PAPER POLLUTANTS (40CFR Part 430)

Pollutant	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL)[1] µg/L unless specified**	**Quantitation Level (QL)[2] µg/L unless specified**
Adsorbable Organic Halides (AOX)		EPA 1650		20
2,3,7,8- Tetrachlorodibenzo-*p*-dioxin (TCDD) (this is also priority pollutant and is listed above)	1746-01-6	EPA 1613	1.3 pg/L	5 pg/L
2,3,7,8- Tetrachlorodibenzofuran (TCDF)	51207-31-9	EPA 1613	1.3 pg/L	5 pg/L
Trichlorosyringol		EPA 1653		2.5
3,4,5-Trichlorocatechol		EPA 1653		5.0
3,4,6-Trichlorocatechol		EPA 1653		5.0
3,4,5-Trichloroguaiacol		EPA 1653		2.5
3,4,6-Trichloroguaiacol		EPA 1653		2.5
4,5,6-Trichloroguaiacol		EPA 1653		2.5
2,4,5-Trichlorophenol		EPA 1653		2.5
2,4,6-Trichlorophenol		EPA 1653		2.5
Tetrachlorocatechol		EPA 1653		5.0
Tetrachloroguaiacol		EPA 1653		5.0

PULP & PAPER POLLUTANTS (40CFR Part 430)

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
2,3,4,6-Tetrachlorophenol		EPA 1653		2.5
Pentachlorphenol (this is also priority pollutant and is listed above)		EPA 1653		5.0

NONCONVENTIONALS – DIOXIN & FURAN CONGENERS

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
2,3,7,8- Tetrachlorodibenzo-*p*-dioxin (TCDD) (this is a priority pollutant and is also listed above)	1746-01-6	EPA 1613	1.3 pg/L	5 pg/L
Total TCDD	41903-57-5			
2,3,7,8- Tetrachlorodibenzofuran (TCDF)	51207-31-9		1.3 pg/L	5 pg/L
Total-TCDF	55722-27-5			
1,2,3,7,8- Pentachlorodibenzo-*p*-dioxin (PeCDD)	40321-76-4			
Total-PeCDD	36088-22-9			
1,2,3,7,8- Pentachlorodibenzofuran (PeCDF)	57117-41-6			
2,3,4,7,8-PeCDF	57117-31-4			
Total-PeCDF	30402-15-4			
1,2,3,4,7,8- Hexachlorodibenzo-*p*-dioxin (HxCDD)	39227-28-6			
1,2,3,6,7,8-HxCDD	57653-85-7			
1,2,3,7,8,9-HxCDD	19408-74-3			
Total-HxCDD	34465-46-8			

NONCONVENTIONALS – DIOXIN & FURAN CONGENERS

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
1,2,3,4,7,8- Hexachlorodibenzofuran (HxCDF)	70648-26-9			
1,2,3,6,7,8-HxCDF	57117-44-9			
1,2,3,7,8,9-HxCDF	72918-21-9			
2,3,4,6,7,8-HxCDF	60851-34-5			
Total-HxCDF	55684-94-1			
1,2,3,4,6,7,8- Heptachlorodibenzo-*p*-dioxin (HpCDD)	35822-46-9			
Total-HpCDD	37871-00-4			
1,2,3,4,6,7,8- Heptachlorodibenzofuran (HpCDF)	67562-39-4			
1,2,3,4,7,8,9-HpCDF	55673-89-7			
Total-HpCDF	38998-75-3			
Octachlorodibenzo-*p*-dioxin (OCDD)	3268-87-9			
Octachlorodibenzofuran (OCDF)	39001-02-0			

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.

2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10^n, where n is an integer. (64 FR 30417).
   ALSO GIVEN AS:
   The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias)

achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

1.

3. Soluble Biochemical Oxygen Demand method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.

2.

4. NWTPH Dx - Northwest Total Petroleum Hydrocarbons Diesel Extended Range – see http://www.ecy.wa.gov/biblio/97602.html

3.

5. NWTPH Gx - Northwest Total Petroleum Hydrocarbons Gasoline Extended Range – see http://www.ecy.wa.gov/biblio/97602.html

6. 1, 3-dichloroproylene (mixed isomers) You may report this parameter as two separate parameters: cis-1, 3-dichlorpropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).

7. Total Benzofluoranthenes - Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.

8. Chlordane – You may report alpha-chlordane (5103-71-9) and gamma-chlordane (5103-74-2) in place of chlordane (57-74-9). If you report alpha and gamma-chlordane, the DL/PQLs that apply are 0.025/0.050.

9. PCB 1016 & PCB 1242 – You may report these two PCB compounds as one parameter called PCB 1016/1242.