

# Verbatim Transcript of Monthly Council Meeting

## Washington State Energy Facility Site Evaluation Council

December 20, 2016



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<p>1</p> <p>2</p> <p>3</p> <p>4 WASHINGTON STATE</p> <p>5 ENERGY FACILITY SITE EVALUATION COUNCIL</p> <p>6 Richard Hemstad Building</p> <p>7 1300 South Evergreen Park Drive Southwest</p> <p>8 Conference Room 206</p> <p>9 Olympia, Washington</p> <p>10 Tuesday, December 20, 2016</p> <p>11 1:30 p.m.</p> <p>12</p> <p>13</p> <p>14 MONTHLY COUNCIL MEETING</p> <p>15 Verbatim Transcript of Proceeding</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20 REPORTED BY: TAYLER RUSSELL, CCR #3358</p> <p>21 Buell Realtime Reporting, LLC</p> <p>22 1325 Fourth Avenue</p> <p>23 Suite 1840</p> <p>24 Seattle, Washington 98101</p> <p>25 206.287.9066   Seattle</p> <p>360.534.9066   Olympia</p> <p>800.846.6989   National</p> <p>www.buellrealtime.com</p>	<p>1 OLYMPIA, WASHINGTON; DECEMBER 20, 2016</p> <p>2 1:30 P.M.</p> <p>3 --o0o--</p> <p>4 P R O C E E D I N G S</p> <p>5</p> <p>6 CHAIRMAN LYNCH: Good afternoon. Today is</p> <p>7 December 20th, and it's the monthly meeting of the</p> <p>8 Energy Facility Site Evaluation Council. Can we please</p> <p>9 have the Staff call the roll?</p> <p>10 MS. MASTRO: Department of Commerce.</p> <p>11 MR. ROSSMAN: Jaime Rossman is here.</p> <p>12 MS. MASTRO: Department of Ecology.</p> <p>13 MR. STEPHENSON: Cullen Stephenson, here.</p> <p>14 MS. MASTRO: Fish and Wildlife.</p> <p>15 MR. STOHR: Joe Stohr is here.</p> <p>16 MS. MASTRO: Department of Natural</p> <p>17 Resources.</p> <p>18 CHAIRMAN LYNCH: I believe he's calling in.</p> <p>19 MS. MASTRO: Utilities and Transportation</p> <p>20 Commission.</p> <p>21 MR. MOSS: Dennis Moss is here.</p> <p>22 MS. MASTRO: Local Governments and Optional</p> <p>23 State Agencies for the Tesoro Project, Department of</p> <p>24 Transportation.</p> <p>25 MR. STONE: Ken Stone is here.</p>
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<p>1 A P P E A R A N C E S</p> <p>2 Councilmembers:</p> <p>3 BILL LYNCH, Chairman</p> <p>4 JAMIE ROSSMAN, Department of Commerce</p> <p>5 CULLEN STEPHENSON, Department of Ecology</p> <p>6 JOE STOHR, Department of Fish and Wildlife</p> <p>7 DAN SIEMANN, Department of Natural Resources (via phone)</p> <p>8 DENNIS MOSS, Utilities and Transportation Commission</p> <p>9</p> <p>10 Local Government and Optional State Agency:</p> <p>11 KEN STONE, Department of Transportation</p> <p>12 BRYAN SNODGRASS, City of Vancouver (via phone)</p> <p>13 LARRY PAULSON, Port of Vancouver (via phone)</p> <p>14</p> <p>15 Attorney General's Office:</p> <p>16 ANN ESSKO, Assistant Attorney General</p> <p>17</p> <p>18 EFSEC Staff:</p> <p>19 STEPHEN POSNER</p> <p>20 JIM LASPINA</p> <p>21 TAMMY MASTRO</p> <p>22 SONIA BUMPUS</p> <p>23 JOAN AITKEN</p> <p>24 AMI KIDDER</p> <p>25 HALEIGH MISSILDINE</p> <p>Guests:</p> <p>PETE VALINSKE, Grays Harbor Energy</p> <p>MARK MILLER, Chehalis Generation Staff</p> <p>SHANNON KHOUNALA, Energy Northwest (via phone)</p> <p>JENNIFER DIAZ, PSE (via phone)</p> <p>SCOTT LICHTENBERG, PSE (via phone)</p> <p>CLINT LAMOREAUX, Southwest Clean Air (via phone)</p> <p>KRISTEN BOYLES, Earth Justice (via phone)</p> <p>CONNIE SUE MARTIN, Port of Vancouver (via phone)</p> <p>24</p> <p>25 * * * * *</p>	<p>1 MS. MASTRO: City of Vancouver.</p> <p>2 MR. SNODGRASS: Bryan Snodgrass is on the</p> <p>3 phone.</p> <p>4 MS. MASTRO: Clark County.</p> <p>5 CHAIRMAN LYNCH: Mr. Shafer is excused.</p> <p>6 MS. MASTRO: And Port of Vancouver.</p> <p>7 MR. PAULSON: Larry Paulson's on the phone.</p> <p>8 MS. MASTRO: Chair, there is a quorum for</p> <p>9 the regular Council and for the Tesoro/Savage Project</p> <p>10 Council.</p> <p>11 CHAIRMAN LYNCH: Thank you. I was going to</p> <p>12 have the Staff call the names of all of Santa's reindeer</p> <p>13 for each of the Councilmembers' names instead, but I</p> <p>14 realized some of you would be fighting over who got to</p> <p>15 be Cupid and at least a few of you who got to be Vixen,</p> <p>16 so I decided that wasn't the best way to go. In fact, I</p> <p>17 even was trying to recall all of them. There's Dancer,</p> <p>18 Dancer [sic], Comet, Cupid, Frodo, Grumpy, Hermione.</p> <p>19 Pretty much covers it.</p> <p>20 So please take a look over the proposed</p> <p>21 agenda. We will have one action item today regarding</p> <p>22 the Chehalis Title V Air Operating Permit. We'll see if</p> <p>23 you have any suggested changes?</p> <p>24 Hearing none, we will move forward, but</p> <p>25 before we get to the minutes, any of those people who</p>

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<p>1 are on the line other than the Councilmembers who've</p> <p>2 already identified themselves, who wish to identify</p> <p>3 themselves please do so now.</p> <p>4 MS. MARTIN: Connie Sue Martin.</p> <p>5 CHAIRMAN LYNCH: Sorry, Ms. Martin, you're</p> <p>6 with who?</p> <p>7 MS. MARTIN: Port of Vancouver.</p> <p>8 CHAIRMAN LYNCH: Thank you.</p> <p>9 MS. DIAZ: Jennifer Diaz and Scott</p> <p>10 Lichtenberg with Puget Sound Energy Wild Horse Wind</p> <p>11 Facility.</p> <p>12 MS. KHOUNNALA: Shannon Khounnala, Energy</p> <p>13 Northwest.</p> <p>14 MR. LAMOREAUX: Clint Lamoreaux, Southwest</p> <p>15 Clean Air.</p> <p>16 CHAIRMAN LYNCH: Anyone else?</p> <p>17 MS. BOYLE: Kristen Boyle, Earth Justice.</p> <p>18 CHAIRMAN LYNCH: Sorry, I heard you,</p> <p>19 Ms. Boyle, with Earth Justice, but another gentleman, I</p> <p>20 believe, was just talking at the same time you were.</p> <p>21 MR. SIEMANN: This is Dan Siemann from DNR</p> <p>22 and Councilmember.</p> <p>23 CHAIRMAN LYNCH: Oh, thank you, Mr. Siemann.</p> <p>24 Anybody else?</p> <p>25 Okay. Let's go ahead and take a look at the</p>	<p>1 November 15th, 2016 as transcribed.</p> <p>2 CHAIRMAN LYNCH: Do we have a second?</p> <p>3 MR. STEPHENSON: I will second.</p> <p>4 CHAIRMAN LYNCH: It's been moved and</p> <p>5 seconded that we approve the monthly Council meeting</p> <p>6 minutes from the November 15th, 2016 meeting. All those</p> <p>7 in favor say "Aye."</p> <p>8 COUNCILMEMBERS: Aye.</p> <p>9 CHAIRMAN LYNCH: Opposed?</p> <p>10 Motion carries.</p> <p>11 At this point in time, we will get updates</p> <p>12 from our projects. We will start first with the</p> <p>13 Kittitas Valley Wind Project.</p> <p>14 MR. LASPINA: Chair Lynch, Mr. Melbardis was</p> <p>15 not able to call in this week, but his -- his report is</p> <p>16 on the green paper and he had nothing nonroutine to</p> <p>17 report.</p> <p>18 CHAIRMAN LYNCH: Okay. Very good. We will</p> <p>19 move on to the Wild Horse Wind Power Project and,</p> <p>20 Ms. Diaz, you're here on the phone, and I understand you</p> <p>21 have someone else with you.</p> <p>22 MS. DIAZ: I do. Thank you, Chair Lynch and</p> <p>23 Councilmembers. For the record, Jennifer Diaz,</p> <p>24 environmental manager for Puget Sound Energy at the Wild</p> <p>25 Horse Wind and Solar Facility and with me today is Scott</p>
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<p>1 meeting minutes for the November 15th regular meeting.</p> <p>2 Does anybody have any suggested edits?</p> <p>3 MR. MOSS: Chairman Lynch, I have one</p> <p>4 question.</p> <p>5 CHAIRMAN LYNCH: Yes.</p> <p>6 MR. MOSS: Is "councilmember" one word or</p> <p>7 two?</p> <p>8 CHAIRMAN LYNCH: I would normally think it's</p> <p>9 two, but I see here it's one so -- but I don't know.</p> <p>10 What were your thoughts?</p> <p>11 MR. MOSS: Well, I thought it should be two.</p> <p>12 It struck me that it was treated as a single word and</p> <p>13 that is consistent throughout the transcript, but</p> <p>14 perhaps this has been treated this way for a hundred</p> <p>15 years. But I just noticed it and I thought I'd ask. I</p> <p>16 don't think it's all that important.</p> <p>17 CHAIRMAN LYNCH: We're going to form a</p> <p>18 special selection.</p> <p>19 MR. MOSS: Can I share that?</p> <p>20 CHAIRMAN LYNCH: Yes, thank you. We will</p> <p>21 have time next -- before next meeting to check that out.</p> <p>22 Any other suggested edits or changes? And</p> <p>23 if not, I will entertain a motion.</p> <p>24 MR. MOSS: Chair Lynch, I will move that we</p> <p>25 accept the minutes of the Council meeting of</p>	<p>1 Lichtenberg. He is our new plant manager here at Wild</p> <p>2 Horse, and he comes to us from the Snoqualmie River</p> <p>3 Hydro Project. He's been with PSE for about 30 years,</p> <p>4 right?</p> <p>5 MR. LICHTENBERG: 32.</p> <p>6 MS. DIAZ: 32 years, thank you.</p> <p>7 MR. LICHTENBERG: I'm old. Leave me alone.</p> <p>8 MS. DIAZ: He's also been on the safety side</p> <p>9 of things and the gas side on PSE. So we're very happy</p> <p>10 to have him here at Wild Horse, and I'll be dragging him</p> <p>11 over to Olympia soon to meet the Council when the</p> <p>12 weather clears over the pass.</p> <p>13 CHAIRMAN LYNCH: Very good. Welcome,</p> <p>14 Mr. Lichtenberg.</p> <p>15 MR. LICHTENBERG: Thank you. Happy to be</p> <p>16 aboard.</p> <p>17 CHAIRMAN LYNCH: And we'll be looking</p> <p>18 forward to go your way, too. Once we get a project out</p> <p>19 the door here, we will plan on visiting some more of our</p> <p>20 facilities.</p> <p>21 MR. LICHTENBERG: Fantastic.</p> <p>22 MS. DIAZ: It'd be great to have you over</p> <p>23 here. And then just my -- I only have one brief update</p> <p>24 under compliance and environmental. In accordance with</p> <p>25 the Stormwater Pollution Prevention Plan, a semiannual</p>

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<p>1 stormwater inspection was completed. All of the</p> <p>2 stormwater BMPs were -- appear to be in good condition</p> <p>3 and no maintenance was required. And the site remains</p> <p>4 in compliance with the plan, and we've got gusting winds</p> <p>5 over 56 miles per hour today and snow on the ground, so</p> <p>6 a little different than in November.</p> <p>7 CHAIRMAN LYNCH: Wow, better you than us,</p> <p>8 Ms. Diaz. I hope things calm down a little bit for you</p> <p>9 over there.</p> <p>10 MS. DIAZ: Thank you.</p> <p>11 CHAIRMAN LYNCH: Any questions?</p> <p>12 MS. DIAZ: And that's all I have for my</p> <p>13 updates. Any questions?</p> <p>14 CHAIRMAN LYNCH: Any questions for Ms. Diaz?</p> <p>15 Hearing none, we will move on.</p> <p>16 Ms. Khounnala, first, the Columbia</p> <p>17 Generating Station.</p> <p>18 MS. KHOUNNALA: Yes, good afternoon, Chair</p> <p>19 and Councilmembers. So first, I'd like to start with</p> <p>20 giving an update on the operational status of Columbia.</p> <p>21 It differs from that that you see in your packet. On</p> <p>22 Sunday morning, Columbia Generating Station performed an</p> <p>23 abrupt shutdown of the plant from 100 percent power due</p> <p>24 to what is known as a load reject. The severe cold</p> <p>25 weather that we've been experiencing over here created</p>	<p>1 particular event has happened like this in the past,</p> <p>2 I'm -- I'm -- I'm not sure.</p> <p>3 CHAIRMAN LYNCH: So this is a question of --</p> <p>4 since it's not operational error or anything like that,</p> <p>5 it's just a question of the load based upon the</p> <p>6 temperature and everything else just being too much for</p> <p>7 the system to take or --</p> <p>8 MS. KHOUNNALA: Yeah, so actually the event</p> <p>9 occurred at the BPA substation, ASH substation. So they</p> <p>10 had an event related to cold wat -- to the cold weather</p> <p>11 in which they had breakers open, and when our plant</p> <p>12 sends the electrical generation to the substation and</p> <p>13 receives those signals, it's -- the reaction is, you</p> <p>14 know, it's the electricity has nowhere to go</p> <p>15 essentially. And so it then implements a scram at our</p> <p>16 plant as a result of that.</p> <p>17 CHAIRMAN LYNCH: I see.</p> <p>18 Any Councilmember questions for</p> <p>19 Ms. Khounnala regarding the shutdown on Sunday?</p> <p>20 No questions regarding that, Ms. Khounnala.</p> <p>21 Why don't you go ahead and proceed.</p> <p>22 MS. KHOUNNALA: Sure. And so as you will</p> <p>23 see in your packet, I have also provided a write-up of a</p> <p>24 regulatory event that I'd like to discuss briefly. And</p> <p>25 that is in regard to our -- our Radley shipping process</p>
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<p>1 conditions on the site of the power administration</p> <p>2 transmission system that resulted in this event.</p> <p>3 So our systems operated as designed in this</p> <p>4 situation and shut down the reactor and reduced our</p> <p>5 electrical output as appropriate, and, additionally, the</p> <p>6 operating crew did a phenomenal job in responding to it</p> <p>7 [beeping over bridge line.] Our outage -- currently our</p> <p>8 outage and our operating [inaudible] team are activated</p> <p>9 and they're coordinating our response to return the</p> <p>10 plant's power. BPA is working closely with Energy</p> <p>11 Northwest on this on our planned return to full power.</p> <p>12 That's the focus of our attention this week.</p> <p>13 Based on the schedule they've outlined, we expect that</p> <p>14 we will begin start-up activities on Thursday. Are</p> <p>15 there any questions in regard to the operational status</p> <p>16 before I go on to an additional item regarding Columbia?</p> <p>17 CHAIRMAN LYNCH: I have a question,</p> <p>18 Ms. Khounnala. Has this happened before, a shutdown</p> <p>19 like this?</p> <p>20 MS. KHOUNNALA: You know, I don't know the</p> <p>21 answer to that, Chair, and that's something I could -- I</p> <p>22 could find out, but I know that the actual event itself</p> <p>23 wasn't necessarily surprising, the load reject itself,</p> <p>24 and that certainly that the cold weather temps have</p> <p>25 been -- can play a part in some of them. Whether this</p>	<p>1 that we have here.</p> <p>2 So you will see in your packet that</p> <p>3 Columbia's had its permitted disposal privileges at the</p> <p>4 U.S. Ecology commercial disposal site temporarily</p> <p>5 suspended by the Department of Health. We made a</p> <p>6 shipment in November of some waste that came out of our</p> <p>7 fuel pool cleanup activities, and that waste, when it</p> <p>8 was -- when it arrived at the U.S. Ecology site, the</p> <p>9 projected dose calculations were higher on the manifest</p> <p>10 than what was actually calculated. And it exceeded it</p> <p>11 at a rate in which the shipment was rejected and</p> <p>12 returned back to Energy Northwest.</p> <p>13 So for just a little bit of background, we</p> <p>14 take some data off of those Radley shipments and provide</p> <p>15 it to a vendor who completes some calculations for us.</p> <p>16 And because there was a discrepancy in that data from</p> <p>17 the calculations to what was received at the site, the</p> <p>18 shipment was rejected. So we're working on a cause</p> <p>19 evaluation on that right now.</p> <p>20 We've also this past week -- last week with</p> <p>21 the NRC, they came out and performed an on-site</p> <p>22 inspection to help review our processes and procedures</p> <p>23 surrounding that -- that event so we can get down to</p> <p>24 what went wrong and how do we prevent that from</p> <p>25 happening -- from not happening in the future. Of</p>



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<p>1 course, as we complete that causal evaluation, we will</p> <p>2 then go back and work with the Department of Health to</p> <p>3 demonstrate what we found in the causal event and have</p> <p>4 our shipping -- shipping privileges reinstated.</p> <p>5 Are there any questions regarding --</p> <p>6 regarding that event?</p> <p>7 CHAIRMAN LYNCH: Any questions for</p> <p>8 Ms. Khounnala regarding that Radley shipment?</p> <p>9 I don't see any questions, and that's</p> <p>10 something that -- you're -- you're just reporting that</p> <p>11 to us, but it's actually outside of EFSEC's regulatory</p> <p>12 overview; is that correct?</p> <p>13 MS. KHOUNNALA: Yes, and you know, that's --</p> <p>14 it's been featured in the newspapers and whatnot, so I</p> <p>15 feel like it's a -- you know, important for us to make</p> <p>16 sure that we're transparent on bringing that to the</p> <p>17 Council so that they're aware of the details as well.</p> <p>18 CHAIRMAN LYNCH: Yes, we appreciate that.</p> <p>19 Thank you.</p> <p>20 MS. KHOUNNALA: Yes, and that's all I have</p> <p>21 for Columbia today.</p> <p>22 CHAIRMAN LYNCH: Any questions regarding</p> <p>23 Columbia for Ms. Khounnala?</p> <p>24 Yes, Mr. Stohr.</p> <p>25 MR. STOHR: Afternoon, Ms. Khounnala. This</p>	<p>1 MR. LASPINA: Chair Lynch, I -- I had</p> <p>2 requested a Department of Health person to call in about</p> <p>3 this. I don't know --</p> <p>4 Is there a Department of Health rep on the</p> <p>5 phone?</p> <p>6 Was hoping to provide some more information</p> <p>7 to the Council, but I guess it didn't work out.</p> <p>8 CHAIRMAN LYNCH: Okay. We could -- if you</p> <p>9 wouldn't mind following up with the Department of Health</p> <p>10 afterwards.</p> <p>11 MR. LASPINA: Yes.</p> <p>12 CHAIRMAN LYNCH: Thank you. Thanks,</p> <p>13 Mr. LaSpina.</p> <p>14 So any -- Ms. Khounnala, do you want to</p> <p>15 update us on WNP 1/4?</p> <p>16 MS. KHOUNNALA: Certainly. With regard to</p> <p>17 WNP 1/4, the Department of Energy has completed the</p> <p>18 draft of the NEPA Environmental Assessment and that is</p> <p>19 within their internal routing system. I've also been</p> <p>20 provided a draft and provided them comments. They</p> <p>21 expect to be moving that into the final phase after the</p> <p>22 first of the year. We also continue to work on the</p> <p>23 cultural resource consultation with regard to that</p> <p>24 project. So items continue to be ongoing, but we are</p> <p>25 making some progress with the NEPA documentation.</p>
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<p>1 is Joe Stohr with Fish and Wildlife. With the</p> <p>2 radioactive waste package and the calculated surface</p> <p>3 measurements, is there any indication this is an ongoing</p> <p>4 problem, something that's been happening for some length</p> <p>5 of time or was it just related to the fuel pool cleanup</p> <p>6 project?</p> <p>7 MS. KHOUNNALA: Yes, so this -- this</p> <p>8 particular incident is really confined to that -- that</p> <p>9 evolution. That's not -- the fuel pool cleanup events</p> <p>10 are not something we do frequently, and because of the</p> <p>11 materials that we're using or that we're taking out of</p> <p>12 that fuel pool and whatnot, the way we measure that, you</p> <p>13 know, we have to put a number of protective actions in</p> <p>14 place that -- you know, it's just not something we use a</p> <p>15 meter and we walk right up to and measure.</p> <p>16 So we'll be looking at, you know, how we do</p> <p>17 collect that data to then filter into that contractor</p> <p>18 who uses those projections. We routinely shift low</p> <p>19 levels rad waste, and we have a number of processes and</p> <p>20 procedures in place. And we have -- you know, we do not</p> <p>21 have issues -- issues with those processes and</p> <p>22 procedures. It really is related to this evolution.</p> <p>23 MR. STOHR: Thank you.</p> <p>24 CHAIRMAN LYNCH: Any other Council</p> <p>25 questions?</p>	<p>1 CHAIRMAN LYNCH: Any questions for</p> <p>2 Ms. Khounnala on WNP 1/4?</p> <p>3 Thank you, Ms. Khounnala.</p> <p>4 MS. KHOUNNALA: Thank you.</p> <p>5 CHAIRMAN LYNCH: And let's turn to the Grays</p> <p>6 Harbor Energy Center.</p> <p>7 Mr. Valinske, welcome.</p> <p>8 MR. VALINSKE: Good afternoon, Chair Lynch,</p> <p>9 EFSEC Council. My name is Pete Valinske. I'm the plant</p> <p>10 manager at Grays Harbor Energy. I have nothing unusual</p> <p>11 to report, but I would like to state in addition to</p> <p>12 what's in our -- in your packet from Grays Harbor, we</p> <p>13 have begun construction of the cooling tower. We've had</p> <p>14 two cells being worked right now and the first one</p> <p>15 should finish up by the end of this week and the work</p> <p>16 will continue through April. And that's all I have.</p> <p>17 CHAIRMAN LYNCH: Outstanding.</p> <p>18 Any questions for Mr. Valinske?</p> <p>19 Thanks for being here.</p> <p>20 Excuse me, I'm sorry. Councilmember</p> <p>21 Rossman.</p> <p>22 MR. ROSSMAN: Just for the record, the</p> <p>23 report that we have from Grays Harbor is dated November</p> <p>24 2014. I'm not quite sure if that's a typo or somehow an</p> <p>25 old one got into our file. I think the address at the</p>

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<p>1 bottom is a different address than on the October 2 report, so I'm not sure if we maybe just got an old one. 3 MR. VALINSKE: I have a copy of it here as 4 November '16. I must have the -- that looks like an old 5 report. That is a -- probably a 2014 report. I can 6 leave this one with Mr. LaSpina to give to you. 7 MR. ROSSMAN: Thank you. 8 CHAIRMAN LYNCH: Thank you. We will make 9 sure the 2016 report is circulated to Councilmembers and 10 made a part of our record and thank you, Mr. Rossman, 11 for your keen eyes. 12 Any questions for Mr. Valinske? 13 Seeing none, thank you. 14 MR. VALINSKE: Thank you. 15 CHAIRMAN LYNCH: Chehalis Generation 16 Facility, Mr. Miller. 17 MR. MILLER: Good afternoon, Chair Lynch, 18 Councilmembers and Staff. I am Mark Miller with the 19 PacifiCorp Chehalis Generation Facility. I do have a 20 couple of nonroutine comments to add. Mr. Kevin Hancock 21 from the Washington State Department of Ecology made an 22 unannounced visit to the Chehalis Facility November 1st. 23 He examined the -- those items that are noted in your 24 report, generally having to do with stormwater 25 conditions. At the end of the audit, Mr. Hancock</p>	<p>1 contractor, Clint Lamoreaux, of the Southwest Clean Air 2 Agency on the Title V Permit renewal. Public notice for 3 the draft permit began on August 25th and ended on 4 September 26th. Comments were received from only one 5 party, the U.S. Environmental Protection Agency. The 6 comments were of an administrative nature and have been 7 addressed to EPA's satisfaction. 8 In your package, you will find three 9 documents related to the Title V Permit reissuance. The 10 Title V Air Operating Permit document itself, the 11 statement of basis which functions as sort of a fact 12 sheet, and the several-page response to comment document 13 with EPA's comments and EFSEC's responses. 14 An extra note, in the past couple of days, 15 EFSEC Staff made a couple of clarifications in the 16 permit. If you turn to page 5 of the permit document, 17 about halfway down the page, subsection F was revised to 18 clearly state that the permittee, the permittee pays for 19 all permit development compliance administrative costs 20 associated with the permit. So there's a slight change 21 of language from the earlier vision you saw -- version 22 you saw, but this -- this is more EFSEC-specific 23 language. 24 Also, a little bit further down the page in 25 subsection I, this subsection was revised to accurately</p>
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<p>1 verbally indicated that there were no deficiencies or 2 actual findings, and the written report is to follow. 3 As of today, we have not received that report. 4 Also, the Washington State fire marshall 5 issued the final report for inspections, the 6 reinspection in 2016 and with the final determination 7 that Chehalis plant was in compliance with all 8 regulations. And we actually received that report from 9 Mr. LaSpina of EFSEC Staff. 10 I have no other comments. Are there any 11 questions? 12 CHAIRMAN LYNCH: Any questions for 13 Mr. Miller? 14 Thank you, Mr. Miller, and then we're going 15 to take up the Title V Air Operating Permit next so why 16 don't you just stay there in case there are questions. 17 And, Mr. LaSpina, do you want to brief the 18 Council on this proposed project? I see the proposed 19 permit, we've had it in front of us for more than one 20 month. 21 MR. LASPINA: Thank you, Chair Lynch. Good 22 afternoon, Chair Lynch and Councilmembers. Today Staff 23 is recommending your approval to issue the Title V -- 24 the Chehalis Title V Permit. Over the past nine months, 25 EFSEC Staff has been working with our permitting</p>	<p>1 describe the permit appeals process. Due to the unique 2 nature of EFSEC, we have a different appeals process 3 than Ecology and the Clean Air Agency's. So that had to 4 be clarified in the permit. Clint Lamoreaux is on the 5 phone to respond to any technical questions on the 6 permit you may have. 7 CHAIRMAN LYNCH: Any questions first for 8 Mr. LaSpina? Any questions for Mr. Lamoreaux? 9 Yes, Mr. Stephenson. 10 MR. STEPHENSON: Thank you, Chair Lynch. 11 Clint, we hear from Staff. Just wanted to 12 hear from you, are you good with this permit? 13 MR. LAMOREAUX: Yes. 14 MR. STEPHENSON: Thank you. 15 CHAIRMAN LYNCH: And I was just -- just for 16 purposes of the record, either Mr. LaSpina or 17 Mr. Lamoreaux, my understanding, and I'm sorry, I 18 haven't looked at the permit since last time, but there 19 were some improvements from this permit over the 20 previous permit. Do you want to hit a few highlights 21 from that? 22 MR. LASPINA: Clint, could you answer that 23 since you had a larger role in that? 24 MR. LAMOREAUX: Are we responding -- the 25 updates after the EPA comments?</p>

Page 21	Page 23
<p>1 CHAIRMAN LYNCH: Oh, just the previous</p> <p>2 permit.</p> <p>3 MR. LAMOREAUX: Oh, the previous --</p> <p>4 MR. LASPINA: Yeah, we -- we tightened up</p> <p>5 some requirements. EPA recommended mentioning or</p> <p>6 clarifying some regulatory citations, you know, that</p> <p>7 sort of thing, Clint.</p> <p>8 MR. LAMOREAUX: There was one change that</p> <p>9 was related to continuous emission monitoring data</p> <p>10 collection requirements that were changed since the last</p> <p>11 permit or added to the lack of the last permit rather</p> <p>12 than -- it had to do with data availability.</p> <p>13 MR. LASPINA: And another recommendation</p> <p>14 that EPA made involved actually the fact sheet. EPA</p> <p>15 requested more background data on the equipment at the</p> <p>16 plant. It was more descriptive rather than regulatory.</p> <p>17 So that was -- a couple of their comments had to do with</p> <p>18 that.</p> <p>19 CHAIRMAN LYNCH: Any other questions for</p> <p>20 Mr. LaSpina or Mr. Lamoreaux?</p> <p>21 Seeing none, I would entertain a motion to</p> <p>22 approve. We have actually done this before, but we've</p> <p>23 made a couple -- but now we've responded to EPA's</p> <p>24 comments and made some slight tweaks to the permit.</p> <p>25 We're actually issuing this version of the permit today</p>	<p>1 chapters that we did receive that were missing. And at</p> <p>2 the last Council meeting in November, I noted that</p> <p>3 preliminary draft final EIS with all chapters is</p> <p>4 expected in early January 2017. And that target date</p> <p>5 has not changed, so we still expect to receive that</p> <p>6 document and begin a comprehensive review at that time.</p> <p>7 I'm going to move on to updates on the</p> <p>8 status of the permits. Are there any questions about</p> <p>9 the SEPA?</p> <p>10 CHAIRMAN LYNCH: Are there any questions for</p> <p>11 Ms. Bumpus regarding the Environmental Impact Statement?</p> <p>12 Please continue.</p> <p>13 MS. BUMPUS: For the NPDES Stormwater</p> <p>14 Industrial Permit, not really any new information to put</p> <p>15 out about this. We're continuing to coordinate with our</p> <p>16 contractor at Ecology to develop draft permit documents</p> <p>17 and we are -- our understanding is that he's preparing</p> <p>18 the first preliminary drafts and we will receive those</p> <p>19 soon. I don't have a target date. I will keep you</p> <p>20 updated, but we are very close on that. And, of course,</p> <p>21 it will have to go through internal review once we do</p> <p>22 receive those drafts.</p> <p>23 Similarly, the draft NOC, the air permit, is</p> <p>24 going through its own round of internal review and we</p> <p>25 are continuing to coordinate that. We will go back to</p>
Page 22	Page 24
<p>1 and not the previous permit. So I will entertain a</p> <p>2 motion for this approval.</p> <p>3 MR. STEPHENSON: Chair Lynch, I will move</p> <p>4 that the Council approve this permit as amended to cover</p> <p>5 the EPA comments.</p> <p>6 CHAIRMAN LYNCH: And do we have a second?</p> <p>7 MR. MOSS: I will second that.</p> <p>8 CHAIRMAN LYNCH: All those in favor of</p> <p>9 adopting the Air Operating Permit as revised for the</p> <p>10 Chehalis Generation Facility say "Aye."</p> <p>11 COUNCILMEMBERS: Aye.</p> <p>12 CHAIRMAN LYNCH: Opposed?</p> <p>13 Motion carries. Very good.</p> <p>14 Thank you, Mr. Miller.</p> <p>15 MR. MILLER: Thank you, Chair and Council.</p> <p>16 CHAIRMAN LYNCH: And now it's time for our</p> <p>17 favorite person, Ms. Bumpus. If you want to give us an</p> <p>18 update on the Tesoro/Savage Vancouver Energy</p> <p>19 Distribution Terminal.</p> <p>20 MS. BUMPUS: Thank you. Good afternoon,</p> <p>21 Chair Lynch and Councilmembers. Just a couple of things</p> <p>22 for the Tesoro/Savage project. For SEPA updates, on</p> <p>23 December 1st, EFSEC received certain portions of a</p> <p>24 preliminary draft final EIS and Staff began reviewing</p> <p>25 that document. There are several pieces within the</p>	<p>1 the applicant for new information if we need to, but I</p> <p>2 will keep you updated on when that review concludes.</p> <p>3 For the NPDES Stormwater Construction</p> <p>4 Permit, just to remind you, we had the public comment</p> <p>5 period from October 31st to November 29. During the</p> <p>6 public comment period, EFSEC received 137 comments by</p> <p>7 the website and mail. And during the public comment</p> <p>8 meeting, the hearing that we had on November 29th in</p> <p>9 Vancouver, we had 46 speakers provide verbal comments.</p> <p>10 We've gone through a portion of those comments and have</p> <p>11 identified those that are substantive, but there still</p> <p>12 is a portion, primarily the ones from the public</p> <p>13 hearing, that we're still going through to identify</p> <p>14 which ones will require responses. We'll be working</p> <p>15 with our contractors at Ecology and our consultant to</p> <p>16 respond to comments, and I will, again, keep you updated</p> <p>17 on the progress of that.</p> <p>18 CHAIRMAN LYNCH: Is that it?</p> <p>19 MS. BUMPUS: That's all I have for the</p> <p>20 project update.</p> <p>21 CHAIRMAN LYNCH: Any questions for</p> <p>22 Ms. Bumpus regarding the project update?</p> <p>23 Thank you.</p> <p>24 So let's turn now to other items of interest</p> <p>25 and, Mr. LaSpina, do you want to tell the Council about</p>

## Verbatim Transcript of Monthly Council Meeting

12/20/2016

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<p>1 the SIP?</p> <p>2 MR. LASPINA: Thank you, Chair Lynch. We</p> <p>3 missed our update last month so I just have a short</p> <p>4 little brief. At the September 20th Council meeting,</p> <p>5 Staff briefed the Council on submittal of EFSEC's State</p> <p>6 Implementation Plan update to the U.S. Environmental</p> <p>7 Protection Agency. The State Implementation Plan or SIP</p> <p>8 is the State's plan to comply with federal National</p> <p>9 Ambient Air Quality standards. The SIP is tied to the</p> <p>10 federal prevention of significant deterioration or PSD</p> <p>11 air permitting program.</p> <p>12 In its role as the State's primary</p> <p>13 environmental regulatory agency, the Department of</p> <p>14 Ecology is the sponsor of EFSEC's SIP submittal to EPA</p> <p>15 and took the lead role in drafting the submittal package</p> <p>16 and managing the public comment process. Public notice</p> <p>17 ran from September 22nd to November 8th. EFSEC did not</p> <p>18 receive any public comments. At this time, the</p> <p>19 Environmental Federal Protection Agency is preparing a</p> <p>20 public notice for the Federal Register. So public</p> <p>21 notice in the Federal Register is the next step in this</p> <p>22 process.</p> <p>23 I just wanted to say that EFSEC Staff</p> <p>24 appreciates the enormous amount of support provided by</p> <p>25 Ecology in preparing our SIP submittal. EFSEC Staff</p>	<p>1 there's always a question about how much should be</p> <p>2 allowed in terms of salvage value, and I see this item</p> <p>3 as actually a pretty big endeavor, where we would</p> <p>4 involve the Council and the stakeholders to -- for us to</p> <p>5 kind of dig a little bit deeper into what we've had and</p> <p>6 what's the appropriate level of security for our</p> <p>7 facilities.</p> <p>8 Also, hope -- of course we've got this big</p> <p>9 project in front of us now, which is the major focus</p> <p>10 that we have, but then there's also some other things.</p> <p>11 We were close to finishing some rules adoption in the</p> <p>12 beginning of the summer that would finish off the</p> <p>13 enforcement piece, which we have most of it -- most</p> <p>14 of -- some rules done and updated policies, so I</p> <p>15 probably need about two, three weeks to finish that off</p> <p>16 and some AG review, and then we can get it in front of</p> <p>17 the Council and get your thoughts.</p> <p>18 Same with updating our clean water</p> <p>19 regulations. We've updated our air regulations</p> <p>20 previously, but we've been turning to our clean water</p> <p>21 regulations. And I work with Mr. LaSpina, and we're</p> <p>22 pretty close to getting those done as well, so I'm</p> <p>23 hoping 2017 is a big year for us to get even more things</p> <p>24 in place.</p> <p>25 Anything else anyone wants to bring up for</p>
Page 26	Page 28
<p>1 will keep you posted as the process unfolds.</p> <p>2 Thank you.</p> <p>3 CHAIRMAN LYNCH: Very good. So we -- it's</p> <p>4 basically in EPA's hands at this point in time.</p> <p>5 MR. LASPINA: Yes, sir.</p> <p>6 CHAIRMAN LYNCH: Which is great, so we're</p> <p>7 one step closer to ice cream cake. We're hoping to have</p> <p>8 this approved sometime in the spring if everything moves</p> <p>9 along, and that will help us with some of our other</p> <p>10 permits that we're hoping to issue later on.</p> <p>11 And just to let Councilmembers know, some of</p> <p>12 the things I am thinking about for 2017 is Mr. Siemann</p> <p>13 and Mr. Rossman brought up the idea about us adopting a</p> <p>14 policy about when the Council gets a request regarding</p> <p>15 our jurisdiction and whether there's a jurisdiction</p> <p>16 determination made. And so I would like to have us</p> <p>17 flush out a policy on that and adopt it sometime in</p> <p>18 2017, and that will mean anyone can look at our website</p> <p>19 and see any sort of determinations that we've -- that</p> <p>20 delineated upcoming jurisdiction that helps give people</p> <p>21 a little bit longer heads-up about proposed projects.</p> <p>22 We have some work that's been done regarding</p> <p>23 the security that has been put up by our different</p> <p>24 facilities, and I'm hoping to talk to the Council about</p> <p>25 that, look over some recommendations. Like for example,</p>	<p>1 the good of the Council? I need to be quicker with this</p> <p>2 gavel. Hearing none, we are adjourned. Thank you.</p> <p>3 (Hearing adjourned at 2:07 p.m.)</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

## 1 CERTIFICATE

2

3 STATE OF WASHINGTON

4 COUNTY OF THURSTON

5

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

10

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Tayler Russell, CCR

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# Kittitas Valley Wind Power Project

## Monthly Project Update

December 20, 2016

### Project Status Update

#### **November Production Summary:**

Power generated:	8,751 MWh
Wind speed:	4.5 m/s or 10 mph
Capacity Factor:	12%

#### **Safety:**

No incidents

#### **Compliance:**

Project is in compliance as of December 15, 2016.

#### **Sound:**

No complaints

#### **Shadow Flicker:**

No complaints

#### **Environmental:**

No incidents



## **Wild Horse Wind Facility- Monthly Compliance Report- November 2016**

### **Safety**

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

### **Compliance/Environmental**

In accordance with the Stormwater Pollution Prevention Plan (SWPPP), a semi-annual stormwater inspection was completed. All BMPs were observed to be in good condition, no maintenance was required. The site remains in compliance with the SWPPP.

### **Operations/Maintenance**

Nothing to report.

### **Wind Production**

November wind generation totaled 48,462 MWh for an average capacity factor of 24.69%



**Energy Northwest  
EFSEC Council Meeting  
November 15, 2016  
Shannon Khounnala**

**I. Columbia Generating Station Operational Status**

Columbia is online at 100% power and producing 1138 MWs. The plant has been online for 264 days.

**Rad Waste Shipping Suspended**

Columbia's permitted disposal privileges at the US Ecology commercial disposal site have been temporarily suspended by the Department of Health. A shipment made in November 2016 was not accepted due to dose rates higher than expected compared to the station manifest. The shipment contained materials from our used fuel cleanup campaign. Prior to shipment, projected dose rates were calculated based on characterization of the manifest – a low-risk approach for worker exposure. A qualified vendor performs the dose projection calculations based on information we provide them. A cause determination is in progress and an inspection by the NRC occurred the week of December 12 to review the Rad Waste shipping process in an effort to identify factors that led to this incident. Energy Northwest will be working closely with the Department of Health to demonstrate that we have implemented actions taken to prevent reoccurrence.

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

**II. WNP 1/4 Water Rights**

NEPA/Leasing

The Department of Energy has completed the draft of the NEPA Environmental Assessment (EA) for WNP 1/4. The document is being routed for review. Energy Northwest continues to work with the tribes on completing the cultural review. Following completion of the EA, a new lease will be signed between EN and the Department of Energy. The new lease will allow for use of the water rights obtained in January 2015.



November, 2014

EFSEC Monthly Operational Report

1. Safety and Training

- 1.1. There were no accidents or injuries to plant staff during the month of November.
- 1.2. Conducted required and scheduled training.
- 1.3. Conducted monthly safety committee meeting.

2. Environmental

- 2.1. Submitted the October DMR for Outfall and storm water.
- 2.2. Completed collecting water samples for the waste water characterization phase of the Engineering Report following implemented changes.

3. Operations & Maintenance

- 3.1. Grays Harbor Energy operated 8 days and generated 96,379 MWh during the month of November.
- 3.2. The capacity factor (CF) was 21.6% in November, and 32.7% YTD.
- 3.3. The availability factor (AF) was 97.5% in November, and 94.6% YTD.

4. Noise and/or Odor

- 4.1. There were no complaints received during the month of November.

5. Site Visits

- 5.1. There were no site visitors during the month of November.

6. Other

- 6.1. Grays Harbor is fully staffed with 22 employees.

## **Chehalis Generation Facility----Monthly Plant Report – November 2016**

### **Washington Energy Facility Site Evaluation Council**

12-16-2016

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#### **Safety:**

- There were no recordable incidents this reporting period and the plant staff has achieved 489 days without a Lost Time Accident.

#### **Environment:**

- There were no air emissions or stormwater deviations or spills during the month of November 2016.
- Wastewater and Stormwater monitoring results were in compliance with the permit limits for the month of November 2016.

#### **Personnel:**

- The Chehalis plant staffing level is currently 18 of 19 approved positions filled.
- The open position is for an Operations Manager.

#### **Operations and Maintenance Activities:**

- The Plant generated 151,755 MW-hrs in November for a 2016 YTD generation total of 1,237,755 MW-hrs and a capacity factor of 29.9%.

#### **Regulatory/Compliance:**

- Kevin Hancock with the Washington State Department of Ecology (DOE) made an unannounced site visit to Chehalis Generation on November 1<sup>st</sup>. He examined the following:
  - Certification of our SWPPP following the turbidity higher than benchmark sample in the first quarter of 2014.
  - Certification of our SWPPP following the re-issuance of the Industrial Stormwater General Permit (ISGP) in 2015.
  - Quarterly sweeping of site roads required by the ISGP.
  - Annual reports stating the corrective actions following the turbidity higher than benchmark sample.
  - Previous years Stormwater DMR's





- Monthly Stormwater site inspections.
- Training rosters for Stormwater training for the Chehalis personnel.

At the end of his audit, Mr. Hancock verbally indicated there were no deficiencies or actionable findings. A written report was to follow.

**Sound monitoring:**

- There were no noise complaints to report.

**Carbon Offset Mitigation**

- PacifiCorp conducted the engineering scoping meeting at the Chehalis plant site with Burns & McDonnell for the reverse osmosis and closed cooling water systems, variable frequency drive design efficiency project implementation.

Respectfully,

Mark A. Miller  
Manager, Gas Plant

STATE OF WASHINGTON  
ENERGY FACILITY SITE EVALUATION COUNCIL (EFSEC)



TITLE V BASIS STATEMENT FOR  
AIR OPERATING PERMIT – EFSEC/06-01-AOP **Rev. 2**

Issued To

**PACIFICORP**

For The

**CHEHALIS GENERATION FACILITY**

**Issued: Date XXXX**

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PERMIT #:	EFSEC/06-01-AOP <b>Rev. 2</b>
<b>PREPARED FOR:</b>	Chehalis Generation Facility 1813 Bishop Road Chehalis, WA 98532
PLANT SITE:	Chehalis Generation Facility 1813 Bishop Road Chehalis, WA 98532
PERMIT ENGINEER:	Clint H. Lamoreaux – SWCAA Air Quality Engineer
REVIEWED BY:	Jim LaSpina – EFSEC Energy Facility Site Specialist

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ENERGY FACILITY SITE EVALUATION COUNCIL  
1300 South Evergreen Park Drive SW - PO Box 43172  
Olympia, WA 98504-3172  
Telephone: (360) 664-1345



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**I. GENERAL INFORMATION AND CERTIFICATION**

1. Company Name: **PacifiCorp**
2. Facility Name: Chehalis Generation Facility
3. Responsible Official: Mr. David M. Lucas
4. Inspection Contact Person: Mr. Mark Miller – Gas Plant Manager
5. Unified Business Identification Number: 601-571-608
6. Standard Industrial Classification (SIC) Code: 4911

**7. Basis for Title V Applicability:**

The Chehalis Generation Facility has the potential to emit more than 100 tons per year of sulfur dioxide, nitrogen oxides, particulate matter less than 10 micrometers, and carbon monoxide, all of which are criteria air pollutants listed under the Federal Clean Air Act. This facility has the potential to emit more than 100,000 tons per year of CO<sub>2</sub>e. A facility with the potential to emit at or above these thresholds is subject to the Title V Air Operating Permit Program. In addition, this facility is required to obtain a Title V Air Operating Permit because it is an affected source under Title IV (Acid Deposition Control) of the federal Clean Air Act.

**Facilitywide Potential To Emit Summary**

<b>Pollutant</b>	<b>Emissions (tons per year)</b>
Nitrogen oxides	242
Carbon monoxide	487
Volatile organic compounds	59
Sulfur dioxide	170
Particulate Matter	225
PM <sub>10</sub>	225
PM <sub>2.5</sub>	225
Combined HAPs	2.0
Individual HAP	2.0 (formaldehyde)
CO <sub>2</sub> equivalent	<b>1,926,904</b>

**8. Current Permitting Action:**

This Title V Air Operating Permit is being issued in response to a Title V renewal application submitted by PacifiCorp Energy in accordance with the deadline contained in Air Operating Permit EFSEC/06-01-AOP Rev. 1.

**9. Attainment Area:**

The Chehalis Generation Facility is located in an area that is in attainment status for all criteria pollutants.

## 10. Facility Description:

The Chehalis Generation Facility began commercial operation (for the purposes of Title IV) in June 2003. Power is generated by two GE model 7FAe+ combustion turbines operated in combined cycle mode with a single steam turbine. The facility has a nameplate capacity of 593.3 MW, an actual net summer capacity of 477 MW, and a net winter capacity of 506 MW. The Site Certification Agreement nominal generating capacity of 520 MW is an accurate representation of the capacity under average annual conditions. An air-cooled condenser system is used in lieu of a wet cooling tower system to minimize water consumption. A 16.9 MMBtu/hr Auxiliary Boiler was commissioned in 2010 to provide steam to the facility to reduce the duration of startup events. No duct burners, emergency generators, or emergency fire pumps have been installed at this facility.

## 11. Permitting Authority:

The Washington Energy Facility Site Evaluation Council (EFSEC) is the permitting authority for the Chehalis Generation Facility. EFSEC implements its Air Operating Permit program through Washington Administrative Code (WAC) 463-78. WAC 463-78 adopts the operating permits regulations of WAC 173-401 by reference.

## 11. Approvals and Regulatory Orders:

The following table lists each Notice of Construction approval and Regulatory Order issued for this facility. Permits or Regulatory Orders in bold contain no active requirements. The requirements may have been superseded or may have been of limited duration.

<u>Number</u>	<u>Date Issued</u>	<u>Description</u>
<b>EFSEC/95-02</b>	6-18-97	Initial approval for construction and operation of the Chehalis Generation Facility. Approved installation of two 230 MW combined cycle combustion turbines and single auxiliary boiler.
<b>EFSEC/95-02 Extension 1</b>	11-16-98	Approved an 18 month extension of the PSD approval to begin actual construction.
<b>EPA Administrative Order on Consent No. CAA-10-2001-0095</b>	3-22-01	Allowed the facility to begin actual construction prior to receiving PSD permit. Required the facility to request a PSD permit revision requiring the installation of SCR to control NO <sub>x</sub> to 3.0 ppmvd @ 3% O <sub>2</sub> when firing natural gas, and 14 ppmvd @ 3% O <sub>2</sub> when firing oil.
<b>EFSEC/95-02 Amendment 1</b>	4-17-01	Approved a revision of the NO <sub>x</sub> limits to 3.0 ppmvd @ 3% O <sub>2</sub> when firing natural gas, and 14 ppmvd @ 3% O <sub>2</sub> when firing oil.
EFSEC/95-02 Amendment 2	7-17-06	Modified opacity monitoring requirements when firing natural gas, modified startup provisions for cold startups, removed references to auxiliary boilers (were not constructed, approval had expired).



<u>Number</u>	<u>Date Issued</u>	<u>Description</u>
EFSEC/2009-01	9-4-09	Approval of a natural gas startup boiler with a capacity of up to 30 MMBtu/hr.

## II. EMISSIONS UNIT DESCRIPTIONS

### EU-1 Combustion Turbine #1 (CT1)

CT1 consists of one General Electric model 7FAe+ gas turbine (serial number 298136) and an unfired heat recovery steam generator (HRSG). The turbine drives a 60-hertz, 18-kilovolt generator (serial number 338X439). The gas turbine is designed to produce approximately 175 MW of electrical power and the steam turbine is designed to produce approximately 170 MW of electrical power (using steam from both HRSGs). The gas turbine operates primarily on natural gas, however, in the case of a natural gas curtailment, the turbine can operate on low sulfur distillate oil. When firing natural gas, the turbine has a heat input capacity of 2,067 MMBtu/hr at peak load and an estimated annual average heat input capacity of 1,782 MMBtu/hr (51 °F, 60% relative humidity). When firing fuel oil, the turbine has a heat input capacity of 2,067 MMBtu/hr at peak load and an estimated annual average heat input capacity of 1,930 MMBtu/hr (51 °F, 60% relative humidity). An inlet air fogging system was added to this unit in 2005 but subsequently removed.

Emissions from the combustion turbine consist primarily of NO<sub>x</sub>, CO, SO<sub>2</sub>, PM, and VOC. A Babcock-Hitachi selective catalytic reduction (SCR) system, using ~19% aqueous ammonia as a reducing reagent, controls emissions of nitrogen oxides (NO<sub>x</sub>) and causes emissions of ammonia (NH<sub>3</sub>). An Engelhard Corporation oxidation catalyst controls carbon monoxide (CO) emissions. Emissions of particulate matter and volatile organic compound emissions are minimized by the use of fuels with low ash contents and optimization of combustion parameters to provide for complete combustion. Combustion gases from the combustion turbine are discharged to the atmosphere through a stack measuring 19 feet 4 inches in diameter by 149 feet tall. CT1 is located to the north of CT2. The stack is located at approximately 46°37'21.09"N, 122°54'52.48"W.

The SCR is comprised of a plate-type catalyst consisting of titanium dioxide (TiO<sub>2</sub>), molybdenum trioxide (MoO<sub>3</sub>), and vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>) catalytic material contained in a ceramic fiber binder. Each SCR is comprised of 72 individual blocks arranged in a 4 block wide by 18 block high configuration. Each catalyst block is 1,628 mm (5.34 ft) wide, 706 mm (2.32 ft) thick, and 946 mm (3.10 ft) high with an individual weight of 473 kg (1,043 lb). The combined volume of the 72 blocks comprising one SCR is 49.3 m<sup>3</sup>.

When the combustion turbines are fired on natural gas, the SCR NO<sub>x</sub> removal efficiency is equal-to-or-greater-than 66.67% at an exhaust gas inlet temperature of 568°F.

The Engelhard carbon monoxide catalytic oxidation system is used to oxidize carbon monoxide (CO) to carbon dioxide (CO<sub>2</sub>). The CO converter system consists of a honeycomb-shaped stainless steel substrate core utilizing an alumina and platinum catalytic matrix which oxidizes CO into CO<sub>2</sub>.



Each unit includes an oxidation catalyst consisting of 250 modules. The modules are housed in a carbon steel framework and are arranged in the combustion turbine exhaust ductwork in a 10-wide by 25-high configuration. Each catalyst module weighs approximately 30 pounds and is 25.5 inches wide by 26.08 inches high and 2.452 inches deep. The frame housing the CO oxidation modules has an overall width of 24.3 feet and an overall height of 59.3 feet. Under design conditions when firing on natural gas at an ambient temperature of 51°F, the combustion turbine exhaust gas is at a nominal temperature of 627°F (+/-25°F) and the oxidation catalyst has a minimum CO-to-CO<sub>2</sub> conversion efficiency of 59.8%. Similarly, when firing on fuel oil at an ambient temperature of 51°F, the combustion turbine exhaust gas is at a nominal temperature of 630°F (+/-25°F) and the oxidation catalyst has a minimum CO-to-CO<sub>2</sub> conversion efficiency of 44.2%.

CT1 was first fired on May 25, 2003. CT1 commenced commercial operation on June 13, 2003.

CT1 is subject to the 40 CFR 60 Subpart GG "Standards of Performance for Stationary Gas Turbines" because its heat input capacity at peak load exceeds 10 MMBtu/hr and it was constructed after the applicability date of October 3, 1977. The turbine has not undergone reconstruction or modification that would trigger the applicability of 40 CFR 60 Subpart KKKK "Standards of Performance for Stationary Combustion Turbines".

#### **EU-2 Combustion Turbine #2 (CT2)**

CT2 consists of one General Electric model 7FAe+ gas turbine (serial number 298137) and an unfired heat recovery steam generator (HRSG). The turbine drives a 60-hertz, 18-kilovolt generator (serial number 338X440). The gas turbine is designed to produce approximately 175 MW of electrical power and the steam turbine is designed to produce approximately 170 MW of electrical power (using steam from both HRSGs). The gas turbine operates primarily on natural gas, however, in the case of a natural gas curtailment, the turbine can operate on low sulfur distillate oil. When firing natural gas, the turbine has a heat input capacity of 2,067 MMBtu/hr at peak load and an estimated annual average heat input capacity of 1,782 MMBtu/hr (51 °F, 60% relative humidity). When firing fuel oil, the turbine has a heat input capacity of 2,067 MMBtu/hr at peak load and an estimated annual average heat input capacity of 1,930 MMBtu/hr (51 °F, 60% relative humidity). An inlet air fogging system was added to this unit in 2005 but subsequently removed.

Emissions from the combustion turbine consist primarily of NO<sub>x</sub>, CO, SO<sub>2</sub>, PM, and VOC. A Babcock-Hitachi selective catalytic reduction (SCR) system, using ~19% aqueous ammonia as a reducing reagent, controls emissions of nitrogen oxides (NO<sub>x</sub>) and causes emissions of ammonia (NH<sub>3</sub>). An Engelhard Corporation oxidation catalyst controls carbon monoxide (CO) emissions. Emissions of particulate matter and volatile organic compound emissions are minimized by the use of fuels with low ash contents and optimization of combustion parameters to provide for complete combustion. Combustion gases from the combustion turbine are discharged to the atmosphere through a stack measuring 19 feet 4 inches in diameter by 149 feet tall. CT2 is located to the south of CT1. The stack is located at approximately 46°37'19.88"N, 122°54'52.46"W.

The SCR is comprised of a plate-type catalyst consisting of titanium dioxide (TiO<sub>2</sub>), molybdenum trioxide (MoO<sub>3</sub>), and vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>) catalytic material contained in a ceramic fiber binder. Each SCR is comprised of 72 individual blocks arranged in a 4 block wide by 18 block high configuration. Each catalyst block is 1,628 mm (5.34 ft) wide, 706 mm (2.32 ft)



thick, and 946 mm (3.10 ft) high with an individual weight of 473 kg (1,043 lb). The combined volume of the 72 blocks comprising one SCR is 49.3 m<sup>3</sup>.

When the combustion turbines are fired on natural gas, the SCR NO<sub>x</sub> removal efficiency is equal-to-or-greater-than 66.67% at an exhaust gas inlet temperature of 568°F.

The Engelhard carbon monoxide catalytic oxidation system is used to oxidize carbon monoxide (CO) to carbon dioxide (CO<sub>2</sub>). The CO converter system consists of a honeycomb-shaped stainless steel substrate core utilizing an alumina and platinum catalytic matrix which oxidizes CO into CO<sub>2</sub>.

Each unit includes an oxidation catalyst consisting of 250 modules. The modules are housed in a carbon steel framework and are arranged in the combustion turbine exhaust ductwork in a 10-wide by 25-high configuration. Each catalyst module weighs approximately 30 pounds and is 25.5 inches wide by 26.08 inches high and 2.452 inches deep. The frame housing the CO oxidation modules has an overall width of 24.3 feet and an overall height of 59.3 feet. Under design conditions when firing on natural gas at an ambient temperature of 51°F, the combustion turbine exhaust gas is at a nominal temperature of 627°F (+/-25°F) and the oxidation catalyst has a minimum CO-to-CO<sub>2</sub> conversion efficiency of 59.8%. Similarly, when firing on fuel oil at an ambient temperature of 51°F, the combustion turbine exhaust gas is at a nominal temperature of 630°F (+/-25°F) and the oxidation catalyst has a minimum CO-to-CO<sub>2</sub> conversion efficiency of 44.2%.

CT2 was first fired on May 31, 2003. CT2 commenced commercial operation on June 5, 2003.

CT2 is subject to the 40 CFR 60 Subpart GG "Standards of Performance for Stationary Gas Turbines" because its heat input capacity at peak load exceeds 10 MMBtu/hr and it was constructed after the applicability date of October 3, 1977. The turbine has not undergone reconstruction or modification that would trigger the applicability of 40 CFR 60 Subpart KKKK "Standards of Performance for Stationary Combustion Turbines".

### EU-3 Auxiliary Boiler

Installation of the Auxiliary Boiler was required by Council Order #836 authorizing the transfer of the Chehalis Generation Facility Site Certification Agreement to PacifiCorp. On September 15, 2008 EFSEC received notice that the Chehalis Generation Facility had been merged into PacifiCorp. The Auxiliary Boiler is used to provide steam to the gas turbine generators' support equipment and to reduce the required duration of gas turbine startup events.

The Auxiliary Boiler is a natural gas fired CB NAT-COM package boiler utilizing a low-NO<sub>x</sub> model P-17-G-14-0911 burner set. The boiler was built, installed, and commissioned in 2010. The following equipment details were available:

Location:	South of main building, between main building and the air cooled condensers
Startup Date:	December 8, 2010
Make / Model:	Cleaver Brooks – NATCOM / NB-200D-35
Fuel:	Natural gas



Heat Input Capacity: 16.9 MMBtu/hr

Burners: Model P-17-G-14-0911, serial number 11497, designed to provide  $\leq 9$  ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> utilizing external flue gas recirculation.

Stack Description: Exhausts vertically through stack measuring 30" diameter, 88' above grade, 28.1 ft/s, 200 °F. The tallest adjacent structure is 76.75' above grade. Located at approximately 46°37'18.17"N, 122°54'53.56"W

The Auxiliary Boiler is subject to the 40 CFR 60 Subpart Dc "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units" because its heat input capacity is less than 100 MMBtu/hr and equal to or greater than 10 MMBtu/hr and it was constructed after the applicability date of June 9, 1989.

### III. EXPLANATION OF INSIGNIFICANT EMISSIONS UNIT DETERMINATIONS

The following equipment was identified by the permittee as insignificant. Each emission unit listed as insignificant in the permit has been reviewed by EFSEC to confirm its status. None of the listed equipment is a significant source of emissions or is subject to any equipment specific air quality requirements.

Equipment Description	Size or Capacity	Justification
Fuel Oil (#2 diesel) piping fugitive emissions	Not applicable	WAC 173-401-530(1)(d) – only fugitive emissions
Fuel Oil Storage Tanks (two tanks)	1,700,000 gallons each	WAC 173-401-530(1)(c) – actual vapor pressure less than 5 mm Hg @ 21°C (category listed in WAC 173-533(2)(t)).
Natural Gas Piping	not applicable	WAC 173-401-530(1)(d) – only fugitive emissions
Inlet Gas Drain Tank	250 gallons	WAC 173-401-530(1)(a) – below emissions thresholds
19% Aqueous Ammonia Storage Tanks	32,000 gallons	WAC 173-401-530(1)(a) – below emissions thresholds
Oil/Water Separator	<500 gallons	WAC 173-401-530(1)(b) – actual vapor pressure less than 550 mm Hg @ 21°C, tank less than 1,100 gallons (category listed in WAC 173-533(2)(b)).
Waste Oil Tank (as separator)	150 gallons	WAC 173-401-530(1)(b) – actual vapor pressure less than 550 mm Hg @ 21 °C, tank less than 1,100 gallons (category listed in WAC 173-533(2)(b)).
Waste Fuel Drain Tanks (2)	500 gallons each	WAC 173-401-530(1)(b) – actual vapor pressure less than 550 mm Hg @ 21°C, tank less than 1,100 gallons (category listed in WAC 173-533(2)(b)).
Miscellaneous Wastewater Collection Sumps	1,000 – 2,500 gallons each	WAC 173-401-530(1)(b) – categorically exempt equipment listed in WAC 173-401-532(120)

<b>Equipment Description</b>	<b>Size or Capacity</b>	<b>Justification</b>
Sanitary Waste Storage Area	3,100 gallons	WAC 173-401-530(1)(b) – categorically exempt as per WAC 173-401-532(6)
Lubricating oil storage tanks	Not applicable	WAC 173-401-530(1)(b) – categorically exempt as per WAC 173-401-532(3)
Pressurized storage tanks containing oxygen, nitrogen, carbon dioxide or inert gases	Not applicable	WAC 173-401-530(1)(b) – categorically exempt as per WAC 173-401-532(5)
Vents from continuous emissions monitors and analyzers	Not applicable	WAC 173-401-530(1)(b) – categorically exempt as per WAC 173-401-532(8)

#### IV. EXPLANATION OF SELECTED TERMS AND CONDITIONS

##### **Req. 1-7 General Standards for Maximum Emissions**

[WAC 173-400-040]

WAC 173-400-040 establishes maximum emission standards for various air contaminants. These requirements are general statewide standards, and apply to all sources of air contaminants. Therefore, these requirements apply to all emission units at the source, both EU and IEU. Pursuant to WAC 173-401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for IEUs except those specifically identified by the underlying requirements.

Req-6 prohibits any concealment or masking. At present, the permittee does not operate any equipment capable of masking emissions, therefore monitoring is limited to the annual compliance certification.

##### **Req. 8 Emission Standards for General Process Units**

[WAC 173-400-060]

WAC 173-400-060 establishes maximum particulate matter emission standards for general process units. These requirements apply to any general process units at the source, including IEUs. The definition of a "general process unit" excludes combustion units; therefore this requirement does not apply to the exhaust stacks of EU-1, EU-2, or EU-3. Pursuant to WAC 173-401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for IEUs except those specifically identified by the requirements as applying to IEUs.

At the current time, no general process units have been identified at this facility with the potential to emit particulate matter. This requirement was included in the permit to apply to operations not currently identified or not yet installed at the facility.

##### **Req. 11 – Fuel Firing Restrictions**

EFSEC/95-02 Amendment 2, Conditions 1.1 & 1.2

Conditions 1.1 and 1.2 of EFSEC/95-02 Amendment 2 requires that the combustion turbines be fired on natural gas except when natural gas is not available and during limited test periods. "On-road specification diesel fuel" may be burned during these periods.



"On-road specification diesel fuel" refers to the on-road specifications from 40 CFR 80.29 as amended through July 1, 1992.

Hours of operation on oil for test periods and startup count towards the 720 hour limit of operation on oil.

**Req. 12 – NO<sub>x</sub> Emission Limits**

40 CFR 60.332(a)(1)

WAC 463-78-115

EFSEC/95-02 Amendment 2, Conditions 2.1, 2.2, 2.3, & 24

Conditions 2.1, 2.2, and 2.3 of EFSEC/95-02 Amendment 2 provide NO<sub>x</sub> emission limits during both natural gas and oil firing. In accordance with Condition 24 of EFSEC/95-02 Amendment 2, these limits apply on a CEM clock hour or calendar day basis when the CEMS is being used to measure emissions. For days when a turbine is fired on both natural gas and oil, a time-weighted average of the gas and oil firing emission limits applies. The last sentence in this requirement states that the oil-firing limit applies for any hour in which oil is fired. It is not practical to split up emission limits into fractions of an hour according to which fuel is being burned, therefore it was determined that the emission limit would need to apply to any hour in which fuel oil is burned.

40 CFR 60.332(a)(1) provides a parallel NO<sub>x</sub> emission limit for combustion turbines, however this limit is far less restrictive than the limits provided by Conditions 2.1 and 2.2 of EFSEC/95-02 Amendment 2. Compliance with the emission limits of Conditions 2.1 and 2.2 will assure compliance with the NO<sub>x</sub> emission limit in 40 CFR 60.332(a)(1), therefore only the limits from Conditions 2.1 and 2.2 were listed. 40 CFR 60.332(a)(1) provides for a limit of at least 75 ppmvd @ 15% O<sub>2</sub> (the limit can increase based on the magnitude of any fuel-bound nitrogen allowance and the manufacturer's rated heat rate at manufacturer's rated load).

**Req. 13 – CO Emission Limits**

EFSEC/95-02 Amendment 2, Conditions 3.1, 3.2, & 24

Conditions 3.1 and 3.2 of EFSEC/95-02 Amendment 2 provide CO emission limits during both natural gas and oil firing. In accordance with Condition 24 of EFSEC/95-02 Amendment 2, these limits apply on a CEM clock hour or calendar day basis when the CEMS is being used to measure emissions. The last sentence in this requirement states that the oil-firing limit applies for any hour in which oil is fired. It is not practical to split up emission limits into fractions of an hour according to which fuel is being burned, therefore it was determined that the emission limit would need to apply to any hour in which fuel oil is burned.

**Req. 14 – SO<sub>2</sub> Emission Limits**

EFSEC/95-02 Amendment 2, Conditions 4.1 & 4.2

Conditions 4.1 and 4.2 of EFSEC/95-02 Amendment 2 provide SO<sub>2</sub> emission limits during both natural gas and oil firing. The last sentence in this requirement states that the oil-firing limit applies for any hour in which oil is fired. It is not practical to split up emission limits into

fractions of an hour according to which fuel is being burned, therefore it was determined that the emission limit would need to apply to any hour in which fuel oil is burned.

**Req. 15 – VOC Emission Limits**

EFSEC/95-02 Amendment 2, Conditions 5.1 & 5.2

Conditions 5.1 and 5.2 of EFSEC/95-02 Amendment 2 provide VOC emission limits during both natural gas and oil firing. Because the term "volatile organic compounds" (VOCs) describes a large class of compounds, a standard compound (in this case propane) must be used in order to compare emission limits and source test results using EPA Method 25A. If the relative concentrations of each volatile organic species is known, the actual emission rate of each species and the total emission rate of VOCs can be determined. VOC speciation data is not required.

For days when a turbine is fired on both natural gas and oil, a time-weighted average of the gas and oil firing emission limits applies. The last sentence in this requirement states that the oil-firing limit applies for any hour in which oil is fired. It is not practical to split up emission limits into fractions of an hour according to which fuel is being burned, therefore it was determined that the emission limit would need to apply to any hour in which fuel oil is burned.

**Req. 16 – PM<sub>10</sub> Emission Limits**

EFSEC/95-02 Amendment 2, Conditions 6.1 & 6.2

Conditions 6.1 and 6.2 of EFSEC/95-02 Amendment 2 provide PM<sub>10</sub> emission limits during both natural gas and oil firing. EPA Method 5 was listed as a possible reference test method because it is presumed that all particulate matter generated from this source will have an aerodynamic diameter of 10 µm or less. EPA Method 201A would be considered a superior test method for the determination of PM<sub>10</sub>, but is not required due to inherent method limitations and the fact that all particulate matter is expected to be PM<sub>10</sub>. This permit limit is based solely on the filterable component of PM<sub>10</sub> and does not require consideration or testing of the condensable fraction of PM<sub>10</sub>.

For days when a turbine is fired on both natural gas and oil, a time-weighted average of the gas and oil firing emission limits applies.

**Req. 17 – Sulfuric Acid Emission Limit**

EFSEC/95-02 Amendment 2, Conditions 7.1 & 7.2

Conditions 7.1 and 7.2 of EFSEC/95-02 Amendment 2 limits sulfuric acid emissions from EU-1 and EU-2. Because of the interference caused by ammonia in the exhaust gas, EPA Method 8 cannot be used without modification to measure sulfuric acid emissions.

The last sentence in this requirement states that the oil-firing limit applies for any hour in which oil is fired. It is not practical to split up emission limits into fractions of an hour according to which fuel is being burned, therefore it was determined that the emission limit would need to apply to any hour in which fuel oil is burned.

**Req. 18 – Opacity Limit**

EFSEC/95-02 Amendment 2, Condition 8



Condition 8 of EFSEC/95-02 Amendment 2 limit opacity from the HRSG exhaust stacks to 10 percent or less on a 6-minute average. EPA Method 9 or an equivalent method must be used daily to confirm compliance. When no visible emissions are present, EPA Method 22 is an equivalent method. Both EPA Method 9 (which requires a certified observer) and EPA Method 22 can be used to determine the presence or absence of visible emissions. The presence of visible emissions is highly unlikely at this facility, except during periods of extreme upset conditions.

**Req. 19 – Ammonia Emission Limits**

EFSEC/95-02 Amendment 2, Conditions 9.1, 9.2, 9.3, & 9.4

Conditions 9.1, 9.2, 9.3, and 9.4 of EFSEC/95-02 Amendment 2 limits ammonia emissions from EU-1 and EU-2. For days when a turbine is fired on both natural gas and oil, a time-weighted average of the gas and oil firing emission limits applies.

**Req. 20, 21 – Startup and Shutdown Provisions**

EFSEC/95-02 Amendment 2, Conditions 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, & 10.7

Conditions 10.2, 10.3, 10.6, and 10.7 of EFSEC/95-02 Amendment 2 provide for special provisions regarding the duration and number of combustion turbine startup and shutdown events because during startup and shutdown the combustion turbines cannot meet all the emission limits that apply during normal operation. Alternative CO and NO<sub>x</sub> emission limits are provided by Conditions 10.4 and 10.5 of EFSEC/95-01 Amendment 2. These alternative limits only apply during the startup and shutdown periods defined in Condition 10.6 of EFSEC/95-01 Amendment 2.

The number of startups per 24-hour period and per year were not limited to assure compliance with ambient air impact limitations. The limits on the number of startups apply to normal startups. Startups resulting from upset conditions (e.g. after emergency shutdowns or unit trips) do not count towards the limitations provided in Conditions 10.2 and 10.3. After a unit trip, the unit can often return to service quickly; to require an extended period of time to elapse before allowing it to return to service (e.g. to get outside of a 24-hour period with two startups) could result in a longer cooling period and a longer startup resulting in greater overall emissions.

**Req. 23 – Source Emission Sampling Access**

40 CFR 60.8(e)

WAC 463-78-115

EFSEC/95-02 Amendment 2, Condition 13

40 CFR 60.8(e) requires the owner or operator of an NSPS applicable unit to provide safe access to adequate test ports, and the utilities necessary to conduct applicable sampling required of NSPS applicable units. Both turbines are subject to 40 CFR 60 Subpart GG, and therefore such access is required for the performance of EPA Method 20. Condition 13 of EFSEC/95-02 Amendment 2 requires safe access to test ports, but does not mention providing testing utilities. The sentence in Req. 23 concerning utilities is solely from 40 CFR 60.8(e).

**Req. 24 – Operating and Maintenance Manuals**

EFSEC/95-02 Amendment 2, Condition 19

Condition 19 of EFSEC/95-02 Amendment 2 requires the permittee to maintain operation and maintenance manuals for equipment at the facility that can affect emissions. Operations and maintenance manuals may be used to investigate excess emissions events and determine if such events were avoidable. Reasonable inquiry conducted for the annual compliance certification is adequate to assure that these manuals are maintained at the facility.

**Req. 26 – Auxiliary Boiler Emission Limits**

EFSEC/2009-01, Condition 1

Condition 1 of EFSEC/2009-01 establishes concentration emission limits for NO<sub>x</sub> and CO and mass emission limits for PM<sub>10</sub> and PM<sub>2.5</sub>. The emission limits are based on reference method testing that is conducted utilizing 1-hour test runs, therefore the Title V permit clarifies that these emission limits apply on one-hour averages.

The PM<sub>10</sub> and PM<sub>2.5</sub> mass emission rate limits are based on total PM emissions (filterable and condensable utilizing EPA Methods 201A and 202). Because natural gas combustion is expected to only produce fine particulate matter, EPA Method 5 can be used in place of EPA Method 201A to measure filterable particulate matter if all PM measured using EPA Method 5 is assumed to be PM<sub>2.5</sub>. PM<sub>10</sub> and PM<sub>2.5</sub> mass emission rate limits are based on a 30 MMBtu/hr boiler, however only a 16.9 MMBtu/hr boiler was installed, therefore compliance with these limits will presumably be by a large margin.

**Req. 27 – Auxiliary Boiler Visual Emissions Limit**

EFSEC/2009-01, Condition 2

Condition 2 of EFSEC/2009-01 establishes a zero percent opacity limit (not to be exceed for more than 3 minutes in any one hour period). EPA Method 9 is cited as the monitoring method; however Ecology Method 9A is the method that must be used for the data reduction to determine compliance with this limitation. The data reduction utilized by EPA Method 9 is utilized for determining average opacity. The data reduction of Ecology Method 9A is used to determine compliance with three minute standards such as Condition 2.



## V. EXPLANATION OF OBSOLETE AND FUTURE REQUIREMENTS

### 1. Obsolete Air Emission Permits/Orders

EFSEC/95-02 was issued on June 18, 1997 for construction and operation of the Chehalis Generation Facility. EFSEC/95-02 approved installation of two 230 MW combined cycle combustion turbines and a single auxiliary boiler. The turbines would primarily fire natural gas, but could fire fuel oil when natural gas was not available. SCR was not required.

EFSEC/95-02 Extension 1 was issued on November 16, 1998. EFSEC/95-02 Extension 1 approved an 18 month extension of the PSD approval to begin actual construction of the Chehalis Generation Facility.

EPA Administrative Order On Consent No. CAA-10-2001-0095 was issued March 22, 2001. The Consent Order required the facility to request a PSD permit revision requiring the installation of SCR to control NO<sub>x</sub> emissions to 3.0 ppmvd @ 3% O<sub>2</sub> while firing natural gas and 14 ppmvd @ 3% O<sub>2</sub> when firing fuel oil. The Consent Order also allowed the facility to begin actual construction of the facility prior to receiving the revised PSD permit. The Consent Order terminated with issuance of PSD permit EFSEC/95-02 Amendment 1.

EFSEC/95-02 Amendment 1 was issued on April 17, 2001. EFSEC/95-02 Amendment 1 approved a revision of the NO<sub>x</sub> emission limit to 3.0 ppmvd @ 3% O<sub>2</sub> while firing natural gas and 14 ppmvd @ 3% O<sub>2</sub> when firing fuel oil.

EFSEC/95-02 Amendment 2 was issued July 17, 2006. EFSEC/95-02 Amendment 2 modified opacity monitoring requirements when firing natural gas, modified the exempted startup time applicable to cold startups and removed references to the previously approved auxiliary boilers (the boilers were never constructed and approval to construct the boilers had expired).

Prevention of Significant Deterioration (PSD) review was conducted for initial installation of Combustion Turbines #1 and #2 resulting in issuance of EFSEC/95-02 on June 18, 1997. Nitrogen oxides, carbon monoxide, sulfur dioxide, particulate matter with an aerodynamic diameter less than 10 micrometers, volatile organic compounds, and sulfuric acid mist underwent PSD review in this permitting action. No permitting action since that time has triggered PSD review.

### 2. Future Requirements

No future requirements are anticipated.

### 3. 40 CFR 60.7 "Notification and Record Keeping"

The combustion turbines are subject to 40 CFR 60.330 et seq. (Subpart GG) "Standards of Performance for Stationary Gas Turbines." Therefore, these units are also subject to the notification requirements of 40 CFR, Section 60.7. These requirements have been met as described below.

Combustion Turbine

Notification of construction: Submitted to EFSEC via letter dated October 25, 2001  
Notification of anticipated startup: Submitted to EFSEC via letter dated March 13, 2003  
Notification of actual startup: Submitted to EFSEC via letter dated June 17, 2003

The Auxiliary Boiler is subject to 40 CFR 60.40c et seq. (Subpart De) "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units." This unit was subject to the initial notification requirements of 40 CFR Section 60.7. These notifications have been completed as described below:

Notification of construction: Submitted to EFSEC via letter dated March 5, 2009  
Notification of anticipated startup: Submitted to EFSEC via letter dated November 8, 2010  
Notification of actual startup: Submitted to EFSEC via letter dated January 7, 2011

**4. 40 CFR 60.8 "Performance Tests"**

The combustion turbines are subject to the NO<sub>x</sub> standard described in 40 CFR 60.332. Therefore the unit is also subject to the performance testing requirements of 40 CFR 60.8. These requirements have been met as described below.

Notification of source test dates: Submitted to EFSEC on July 29, 2003  
Initial source test: Performed on August 20-21, 2003 (CT1)  
Performed on August 23-24, 2003 (CT2)  
Source test report: Initial Report Dated November 25, 2003  
Revised Report Dated April 22, 2004

**5. 40 CFR 75.61 "Notifications"**

The combustion turbine is subject to the requirements of 40 CFR 75.61 "Notifications." These requirements have been met as described below.

Notification of actual startup date: Submitted to EFSEC on June 17, 2003  
Notification of initial CEMS certification: Submitted to EFSEC on July 29, 2003  
Initial CEMS certification test: Completed on August 21, 2003 (CT1)  
Completed on August 23, 2003 (CT2)

**6. 40 CFR 75.62 "Monitoring Plan"**

The combustion turbine is subject to the requirements of 40 CFR 75.62 "Monitoring Plan." The initial monitoring plan required by 40 CFR 75.62 was submitted to EFSEC and EPA on July 15, 2003.

**7. 40 CFR 75.63 "Initial Certification or Recertification Application"**

The combustion turbine is subject to the requirements of 40 CFR 75.63. The results of the initial CEM certification tests were submitted to EPA on December 23, 2003.



## **VI. EXPLANATION OF MONITORING REQUIREMENTS**

### **M1. Visible Emission Monitoring**

This monitoring requirement is used to provide a reasonable assurance of compliance with the applicable requirements drawn from WAC 173-400, and EFSEC/95-02 Amendment 2. Visible emissions monitoring of EU-1 and EU-2 is required by Condition 8 of EFSEC/95-02 Amendment 2. Condition 8 requires daily monitoring when firing oil, or weekly monitoring when firing natural gas, utilizing EPA Reference Methods 9, 22, or an equivalent method approved by EFSEC. EPA Method 22 may be used when no visible emissions are observed. It is expected that no visible emissions will be observable during normal operations.

Because EPA Method 9 cannot be used to demonstrate compliance with the 20% opacity standard listed in WAC 173-400-040(1), Washington Department of Ecology Method 9A must be utilized in addition to EPA Method 9 whenever visible emissions are observed when conducting the daily monitoring. This monitoring was added under the "gap-filling" provisions of WAC 173-401. The only significant difference in these two methods is the data reduction methods and the fact that Washington Department of Ecology Method 9A may require a longer period of observation to demonstrate compliance with the opacity standard.

Only the general standards of WAC 173-400 apply to sources of emissions other than EU-1 and EU-2. WAC 173-400 does not directly establish any specific regime of monitoring and recordkeeping. Consequently, EFSEC has implemented monitoring and recordkeeping requirements for these sources under the "gap filling" provisions of WAC 173-401-615. These requirements consist of measuring the opacity of emissions from these sources when indicated by a complaint or if otherwise unusual emissions are observed.

### **M2. Fugitive Emissions Monitoring**

This monitoring requirement is used to provide a reasonable assurance of compliance with the applicable requirements drawn from WAC 173-400 with regard to fugitive emissions. These requirements do not directly establish any specific regime of fugitive emissions monitoring or recordkeeping. Consequently, EFSEC has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615. Because there is not much opportunity for the generation of fugitive emissions at this facility, and most fugitive emissions would be readily noticeable by plant personnel or indicated by a complaint (especially in the event of excessive road dust), monthly monitoring was believed to provide a reasonable assure of compliance.

M2 is designed to assure compliance through a combination of periodic facility inspections and prompt corrective action whenever necessary.

**M3. Complaint Monitoring**

This monitoring requirement is used to provide a reasonable assurance of compliance with the applicable requirements drawn from WAC 173-400 and EFSEC/95-02 Amendment 2. These requirements do not directly establish any specific regime of complaint monitoring or recordkeeping. Consequently, EFSEC has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615. M3 is designed to assure compliance through prompt complaint response and corrective action whenever necessary.

**M4. Performance Testing**

This monitoring requirement is used to provide a reasonable assurance of compliance with the emission limits identified in EFSEC/95-02 Amendment 2. Initial source testing for 40 CFR 60 Subpart GG, and all initial testing required by EFSEC/95-02 Amendment 2 was completed in August 2003. The only on-going source testing requirements are found in Condition 15 of EFSEC/95-02 Amendment 2.

**M5. Continuous Emissions and Process Monitoring**

This monitoring requirement is used to provide a reasonable assurance of compliance with the emission limits identified in EFSEC/95-02 Amendment 2 and the monitoring requirements of 40 CFR 75 (for the Acid Rain program).

EFSEC/95-02 Amendment 2 stated that CEMS for NO<sub>x</sub> and O<sub>2</sub>, "shall meet the requirements contained in 40 CFR 75, Emissions Monitoring". 40 CFR 75 was designed to achieve the goals of the Acid Rain Program, not demonstrate compliance with the relatively low concentration permit limit of 3.0 ppmvd @ 15% O<sub>2</sub> at this facility. 40 CFR 75 allows for NO<sub>x</sub>/O<sub>2</sub> CEMS to have a relative accuracy of 0.020 lb/MMBtu (5.4 ppmvd @ 15% O<sub>2</sub>). Similarly, 40 CFR 75 App. B Section 2.1.4(a) does not classify the CEMS as "out of control" until the calibration error exceeds 5.0 ppm (for span values ≤ 50 ppm), or 10.0 ppm (for span values greater than 50 and ≤ 200 ppm). A NO<sub>x</sub>/O<sub>2</sub> CEMS needs to be more accurate than this to provide a reasonable assurance of compliance with the 3.0 ppmvd @ 15% O<sub>2</sub> permit limit.

The quality assurance requirements cited in EFSEC/95-02 Amendment 2 for the CO CEMS allow for a relative accuracy of ±5 ppm and a cylinder gas audit accuracy of ±5 ppm. The CO CEMS needs to be more accurate than this to provide a reasonable assurance of compliance with the 3.0 ppmvd @ 15% O<sub>2</sub> permit limit.

The quality assurance requirements cited in EFSEC/95-02 Amendment 2 for the NH<sub>3</sub> CEMS allows for a cylinder gas audit accuracy of ±5 ppm. The NH<sub>3</sub> CEMS needs to be more accurate than this to provide a reasonable assurance of compliance with the 10.0 ppmvd @ 15% O<sub>2</sub> permit limit.

WAC 173-401-630(1) requires that all Air Operating Permits "...contain compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit." To meet this



requirement, the following improved CEMS quality assurance requirements were "gap-filled" into the Air Operating Permit.

CEMS	Gap-Filled Quality Assurance Requirements
NO <sub>x</sub> /O <sub>2</sub>	<ul style="list-style-type: none"> <li>Relative accuracy <math>\leq</math> 20% of reference method or 10% of emission standard for Relative Accuracy Test Audits</li> <li>The calibration error as defined in 40 CFR 75, Appendix A, Section 7.2.1 shall not exceed 5%</li> </ul>
CO	<ul style="list-style-type: none"> <li>Relative accuracy <math>\leq</math> 20% of reference method or 10% of emission standard for Relative Accuracy Test Audits</li> <li>Relative accuracy of cylinder gas audit <math>\pm</math>15 percent of the average audit value or 0.5 ppm, whichever is greater</li> </ul>
NH <sub>3</sub>	<ul style="list-style-type: none"> <li>Relative accuracy of cylinder gas audit <math>\pm</math>15 percent of the average audit value or 1.0 ppm, whichever is greater</li> </ul>

EFSEC/95-02 Amendment 2 identified the "requirements contained in 40 CFR, Part 60, Appendix B..." for the CO CEMS. The most relevant performance standard in Appendix B is Performance Specification 4A, therefore the requirements of Performance Specification 4A were specifically identified in this monitoring requirement.

EFSEC/95-02 Amendment 2 identified the "requirements contained in 40 CFR, Part 60, Appendix B..." for the NH<sub>3</sub> CEMS. The most relevant performance standard in Appendix B is Performance Specification 2, therefore the requirements of Performance Specification 2 were specifically identified in this monitoring requirement.

Condition 16 of EFSEC/95-02 Amendment 2 requires the permittee to report "CEMS and process data" to EFSEC and EPA Region X. To be reported, this information must be collected by the permittee. The specific CEMS and process data elements were not identified, but must at a minimum, consist of all data necessary to determine compliance with the permitted emission limits. Collection of the relevant CEMS data for NO<sub>x</sub>, CO, and NH<sub>3</sub> were required (in units and averaging times consistent with the emission limits), as well as fuel flow data to calculate emissions of all other pollutants. Turbine generator electrical output was required as a quality assurance check on the fuel flow data since turbine heat rates should remain relatively constant at any specific load.

#### **M6. SO<sub>2</sub> General Standard Monitoring**

This monitoring requirement is used to provide a reasonable assurance of compliance with the applicable requirements drawn from 40 CFR 60 Subpart GG, 40 CFR 75, and EFSEC/95-02 Amendment 2. 40 CFR 60 Subpart GG limits fuel sulfur content to 0.8% by weight. 40 CFR 60 Subpart GG requires proof that gaseous fuel meet the definition of natural gas, and requires a regime of fuel sulfur content monitoring for liquid fuels (oil). All of the sulfur content monitoring requirements of 40 CFR 60 Subpart GG are satisfied by complying with the sulfur content monitoring requirements of 40 CFR 75 Appendix D.

Pipeline natural gas as defined in 40 CFR 72.2 contains less than 0.5 grains total sulfur per 100 scf. Natural gas as defined in 40 CFR 72.2 contains less than 20 grains total sulfur per

100 scf. In the past, the gas delivered to this facility has met the definition of natural gas, but not pipeline natural gas because the sulfur content was greater than 0.5 grains per 100 scf.

#### **M7. Auxiliary Boiler Monitoring**

This monitoring requirement comes directly from 40 CFR 60.48c and EFSEC/2009-01 Conditions 4 & 5. 40 CFR 60.48c and EFSEC/2009-01 Condition 4 both require monthly logging of natural gas consumption. This data will be used to calculate annual emissions.

#### **M8. Auxiliary Boiler Source Emissions Testing and Performance Monitoring**

The requirements cited in this monitoring requirement and Appendices B & C of the Permit come directly from EFSEC/2009-01 and provide a reasonable assurance of compliance with the NO<sub>x</sub> and CO emission limits of EFSEC/2009-01. In addition, if the CO emission limit is being achieved, PM emissions are likely well below the permitted emission limits.

Performance monitoring of the Auxiliary Boiler with a combustion analyzer or equivalent is required at least annually. It is unlikely that emissions will degrade rapidly enough that more frequent monitoring is necessary to maintain proper operation. In addition, more comprehensive source emissions testing of the Auxiliary Boiler is required initially and at least once every 60 months following the initial source emissions test to provide a reasonable assurance of on-going compliance with the permitted emission limits

### **VII. EXPLANATION OF RECORDKEEPING REQUIREMENTS**

#### **K1. Basic Recordkeeping**

This recordkeeping section lists how the recordkeeping requirements of WAC 173-401-615(2) apply to inspections and certifications, complaints, upsets, and sampling and emissions testing. Basic Recordkeeping requirements were separated into Sections (a) through (d) to organize the requirements.

K1(d) "Sampling and Emission Testing" applies to source testing and RATA reports.

#### **K2. Continuous Emissions and Process Data Recordkeeping Requirements**

This recordkeeping section is taken from 40 CFR 75.57 - 75.59 and supplemented by the recordkeeping provisions of WAC 173-401-615(2).



The Acid Rain Program requires that pertinent records be maintained for at least three years from the date of the record. However, the recordkeeping provisions of the Air Operating Permit regulations, WAC 173-401-615(2)(c), require retention of records for a period of five years.

The requirement to maintain records of the CEMS and DAHS data from monitoring requirement M5 (data elements "a" through "j" of K2) is mandated by the provisions of WAC 173-401-615(2).

## **VIII. EXPLANATION OF REPORTING REQUIREMENTS**

### **R1. Deviations from Permit Conditions**

This reporting section is taken directly from WAC 173-400-107, WAC 173-401-615(3), and Condition 18 of EFSEC/95-02 Amendment 2. The permittee is required to report all permit deviations no later than 30 days following the end of the month during which the deviation is discovered in accordance with WAC 173-401-615(3). In accordance with WAC 173-400-107, the permittee must report permit deviations due to excess emissions as soon as possible if the permittee wishes the deviation to be considered unavoidable. EFSEC may request a full report of any deviation if determined necessary. These deviations are also reported in each semi-annual report.

### **R2. Complaint Reports**

The permittee is required to report all complaints to EFSEC within three business days of receipt to ensure prompt complaint response. This reporting section is based on WAC 173-401-615(3).

### **R3. Quarterly Reports**

Condition 16 of EFSEC/95-02 Amendment 2 requires the permittee to submit reports monthly unless a different testing and reporting schedule has been approved by EFSEC. With issuance of this Title V permit, EFSEC authorizes the use of a quarterly reporting schedule rather than a monthly reporting schedule for the duration of the permit. In addition, with issuance of this Title V permit, EFSEC authorizes the permittee to submit quarterly reports in an electronic format approved by EFSEC. The current practice of submitting quarterly reports in Excel format is approved as of the date of issuance of this permit. The permittee must receive pre-approval from EFSEC to submit the quarterly report in other electronic formats.

As required by EFSEC/95-02 Amendment 2, all CEMS and process data shall be reported to both EFSEC and EPA Region X. The specific CEMS and process data elements were not identified, but must at a minimum, consist of all data necessary to determine compliance with the permitted emission limits. The relevant CEMS data for NO<sub>x</sub>, CO, and NH<sub>3</sub> was required (in the units and averaging times of the emission limits), as well as fuel flow data to calculate emissions of all other pollutants. Turbine generator electrical output was required

as a quality assurance check on the fuel flow data since turbine heat rates should remain relatively constant at a specific load.

#### **R4. Semi-annual Reports**

The permittee is required to provide a report on the status of all required monitoring requirements and provide a certification of all reports on a semi-annual basis. Semi-annual reporting and certification of monitoring records is required by WAC 173-401-615(3). A responsible official must certify all reports required by the Title V permit.

The semi-annual report provides information on the status of all required monitoring. The actual results (e.g. CEM data, opacity readings, etc.) do not need to be submitted unless specifically required by the permit.

No report dates are specified in WAC 173-401-615(3), but a report date must be specified to assure timely reporting and make the requirement enforceable. Report dates of April 15<sup>th</sup> and October 15<sup>th</sup> were chosen (~3.5 months after the end of the reporting period) so that the semi-annual report for the last six months of the calendar year is due at the same time as the annual compliance certification and the annual emissions inventory report.

#### **R5. Annual Compliance Certifications**

Annual Compliance Certification: The permittee is required to report and certify compliance with all permit terms and conditions on an annual basis. Annual compliance certification is required by WAC 173-401-630(5). 40 CFR 60.11(g) requires the permittee to consider credible evidence when submitting compliance certifications for NSPS affected units (EU-1, EU-2, & EU-3). Any deviations from permit conditions or certifications of intermittent compliance need to be accompanied by an explanation.

WAC 173-401 does not provide a deadline date for submission of the annual compliance certification, but a deadline date is necessary to make the requirement enforceable. The April 15<sup>th</sup> date was chosen because it is the date by which the annual emissions inventory report must be submitted in accordance with WAC 173-400-105.

#### **R6. Emission Inventory Reports**

The permittee is required to report an inventory of emissions from the source, and certify compliance with all permit terms and conditions on an annual basis. A complete emissions inventory includes quantifiable emissions from all EUs and IEUs. It is not expected that emissions from the IEUs identified in Section III will be quantifiable.

#### **R7. Source Test Reports**

Condition 17.5 of EFSEC/95-02 Amendment 2 requires submittal of the results of combustion turbine compliance tests as an element of the data that must be submitted along the timeline specified in Condition 16. Consistent with Condition 16, compliance source test reports for the combustion turbines must be submitted no later than 30 days after the end of the calendar quarter during which the testing was conducted. Source test reports for



RATAs conducted pursuant to 40 CFR 75 may be required at an earlier date if requested by EPA Region X or EFSEC.

In accordance with Condition 12 of EFSEC/2009-01, the results of all source emissions testing of the Auxiliary Boiler shall be reported to EFSEC within 45 days of test completion.

## IX. APPENDICES

Appendix A contains the method by which visible emissions from the permittee's operations are to be evaluated when performing required monitoring. The federal requirements mandate the use of EPA Method 9. For EPA Method 9, the data reduction procedures detailed in EPA Method 9 must be used, not the procedures listed in Section 3 or Ecology Method 9A.

## X. PERMIT ACTIONS

### Air Operating Permit EFSEC/06-01-AOP

1.	Renewal Permit Application Submitted:	May 12, 2004
2.	Permit Application Deemed Complete:	May 25, 2004
3.	Permit Application Sent to EPA:	May 25, 2004
4.	Draft Permit Issued:	April 10, 2006
5.	Proposed Permit Issued:	July 11, 2006
6.	Final Permit Issued:	October 10, 2006

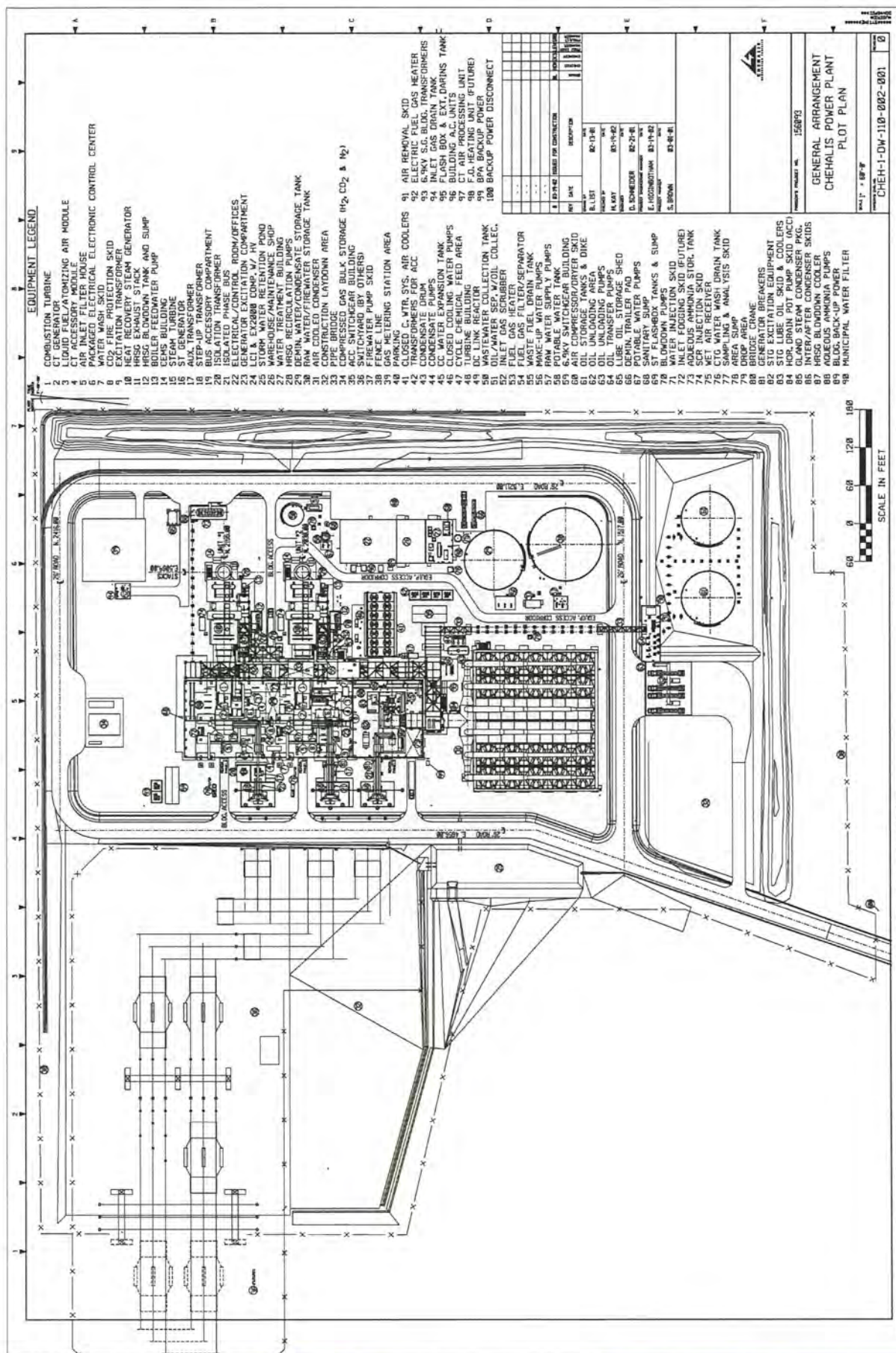
### Air Operating Permit EFSEC/06-01-AOP Rev. 1

1.	Renewal Permit Application Submitted:	December 15, 2010
2.	Permit Application Deemed Complete:	March 3, 2011
3.	Permit Application Sent to EPA:	March 4, 2011
4.	Draft Permit Issued:	June 24, 2011
5.	Proposed Permit Issued:	August 19, 2011
6.	Final Permit Issued:	October 10, 2011

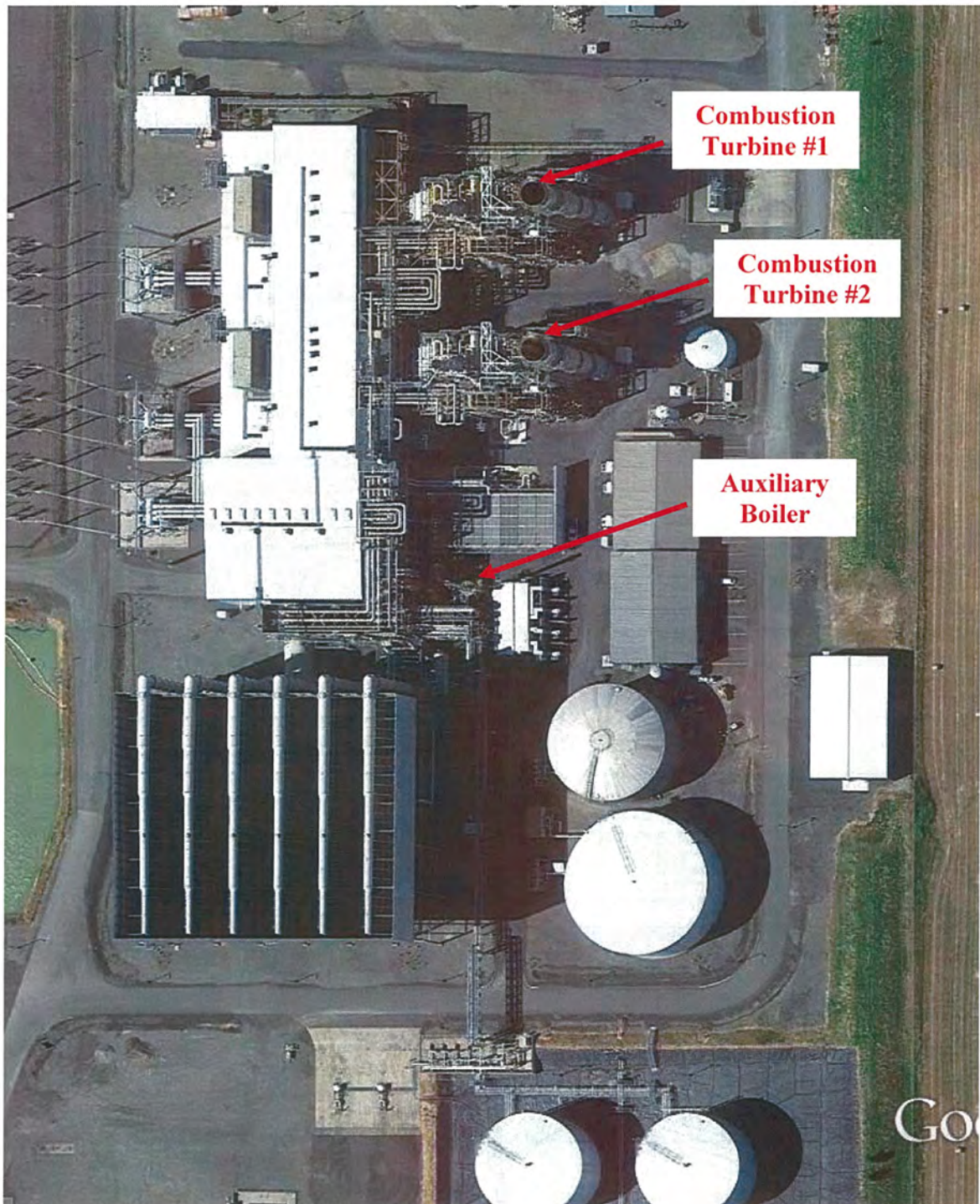
### Air Operating Permit EFSEC/06-01-AOP Rev. 2

1.	Renewal Permit Application Submitted:	October 6, 2015
2.	Permit Application Deemed Complete:	May 20, 2016
3.	Permit Application Sent to EPA:	July 29, 2016
4.	Draft Permit Issued:	August 25, 2016
5.	Proposed Permit Issued:	To be determined
6.	Final Permit Issued:	To be determined

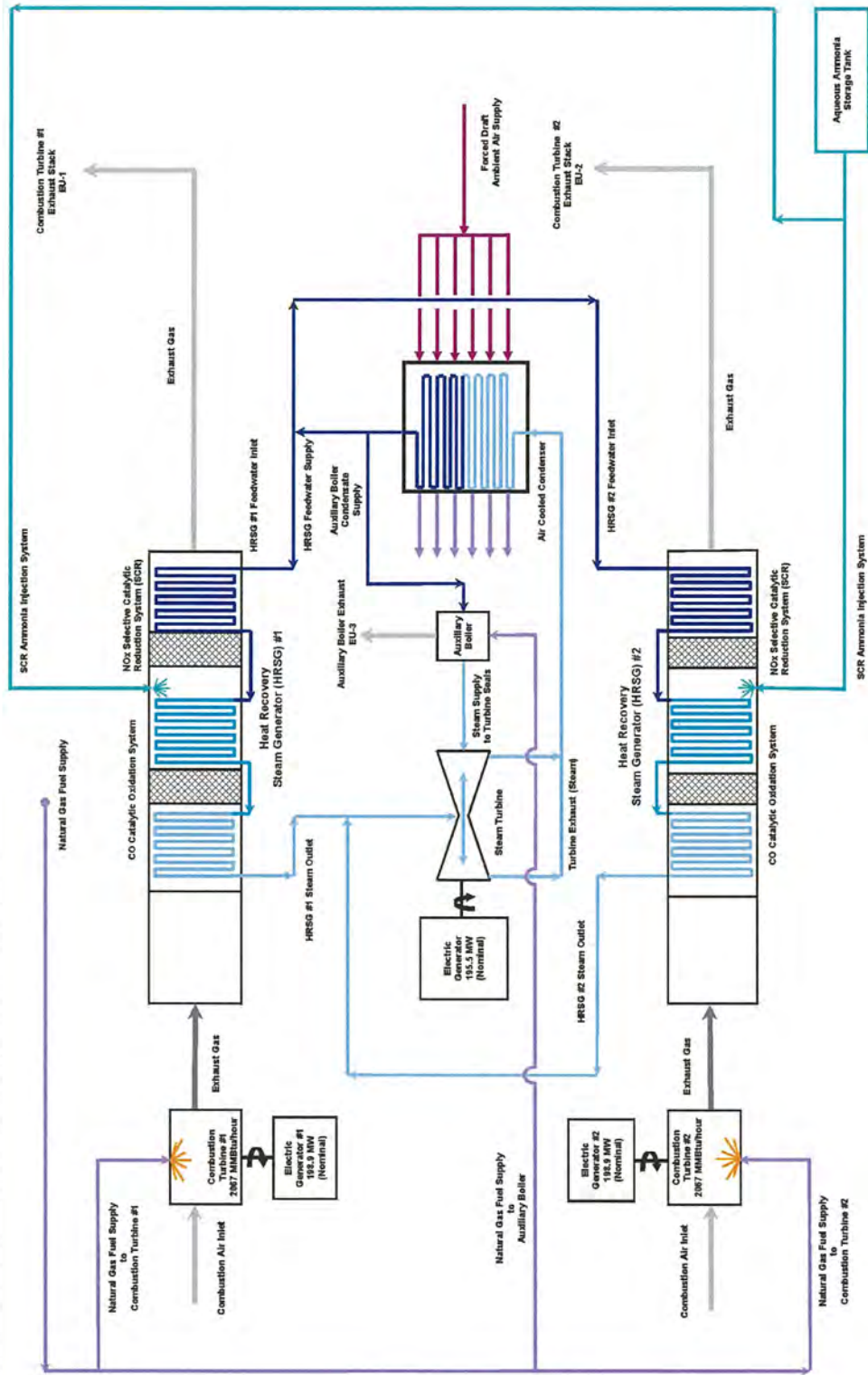
## XI. Drawings







Chehalis Generating Facility - Process Flow Diagram



J. Doak  
10/26/2019



STATE OF WASHINGTON  
ENERGY FACILITY SITE EVALUATION COUNCIL (EFSEC)



TITLE V AIR OPERATING PERMIT (AOP)

Issued To

PACIFICORP

For The

CHEHALIS GENERATON FACILITY

PERMIT #:	EFSEC/06-01 AOP Rev. 2
ISSUED:	Date XXXX
EXPIRATION:	To be determined

ENERGY FACILITY SITE EVALUATION COUNCIL  
1300 South Evergreen Park Drive SW  
PO Box 43172  
Olympia, WA 98504-3172  
Telephone: (360) 664-1345

**AIR OPERATING PERMIT #:** EFSEC/06-01-AOP Rev. 2

**ISSUED TO: PacifiCorp**  
1407 West North Temple  
Salt Lake City, UT 84116

**PLANT SITE: Chehalis Generation  
Facility, 1813 Bishop Road  
Chehalis, WA 98532**

**ISSUED BY: Energy Facility Site Evaluation Council**  
1300 South Evergreen Park Drive SW - PO Box 43172  
Olympia, WA 98504-3172

NATURE OF BUSINESS: Electrical Generating Facility

SIC / NAICS: 4911 / 221112

AIRS NUMBER: 53041-00005

EFFECTIVE DATE: To be determined

EXPIRATION DATE: To be determined

RENEWAL APPLICATION DUE: To be determined (6 months prior to exp.)

PERMIT ENGINEER:

\_\_\_\_\_  
Clint H. Lamoreaux – SWCAA

\_\_\_\_\_  
Date

REVIEWED BY:

\_\_\_\_\_  
Stephen Posner – EFSEC Manager

\_\_\_\_\_  
Date

APPROVED BY:

\_\_\_\_\_  
William Lynch - EFSEC Chair

\_\_\_\_\_  
Date



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**I. ABBREVIATIONS**List of Common Abbreviations

Administrator	EPA Region X Administrator
AOP	Air Operating Permit
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
CO	Carbon monoxide
CFR	Code of Federal Regulations
DAS	Data Acquisition and System
EFSEC	Washington Energy Facility Site Evaluation Council (a.k.a. the Council)
EPA	U.S. Environmental Protection Agency
EU	Emission Unit
EU-#	Refers to a specific emission unit numbered "#"
FCAA	Federal Clean Air Act
G#	Refers to a specific general term and condition numbered "#"
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous air pollutant
HRSG	Heat Recovery Steam Generator
IEU	Insignificant emission unit
IEU#	Insignificant emission unit numbered "#"
K#	Refers to a specific recordkeeping requirement numbered "#"
M#	Refers to a specific monitoring requirement numbered "#"
NO <sub>x</sub>	Oxides of nitrogen
NCASI	National Council of the Paper Industry for Air and Stream Improvement, Inc.
NSPS	New Source Performance Standards (40 CFR 60)
NSR	New source review
Oil	"On-road specification diesel fuel" with a sulfur content of 0.05% or less
O <sub>2</sub>	Oxygen
P#	Administrative permit constraint numbered "#"
PM	Particulate matter
ppmvd	Parts per million by volume, dry
PTE	Potential to emit
R#	Refers to a specific reporting requirement numbered "#"
RCW	Revised Code of Washington
Region 10	Region 10 of the U.S. Environmental Protection Agency
Req-#	Applicable requirement numbered "#"
SIP	State implementation plan
SO <sub>2</sub>	Sulfur dioxide
SWCAA	Southwest Clean Air Agency
TAP	Toxic air pollutant
tpy	Tons per year
VOC	Volatile organic compound
WAC	Washington Administrative Code

Terms not otherwise defined in this permit have the meaning assigned to them in the referenced regulations.



## CHEHALIS GENERATION FACILITY TITLE V AIR OPERATING PERMIT

### II. REGULATORY BASIS

This Air Operating Permit (AOP), issued to PacifiCorp, for the Chehalis Generation Facility, is authorized under the procedures established in WAC 173-401 as adopted by EFSEC in WAC 463-78, and Title V of the 1990 Federal Clean Air Act Amendments. The terms and conditions of this permit describe the emissions limitations, operating requirements, monitoring requirements, recordkeeping requirements, and reporting requirements for the permitted source.

Permit terms and conditions are divided into the following categories: General Terms and Conditions, Operating Terms and Conditions, Monitoring Terms and Conditions, Recordkeeping Terms and Conditions, and Reporting Terms and Conditions. As used in this permit, there is no distinction between "terms" and "conditions." As such, "condition" shall mean the same as "terms and conditions" as referred to in Title V of the 1990 Federal Clean Air Act Amendments.

The conditions required under this permit are determined necessary to assure and provide for certification of compliance with applicable local, state, and federal air pollution regulations and standards. A comprehensive list of the local, state, and federal air pollution requirements applicable to emissions units and other air pollution sources located at the Permittee's facility is provided in Sections V through IX. These requirements were determined applicable based on the equipment specifications and regulatory history of each emissions unit as described in the Basis Statement for this permit. These requirements are drawn from numerous regulations. The date of each requirement generally coincides with the most recent rulemaking activity. In some cases, there are multiple effective dates that reflect differences in federal versus state/local applicability. This situation is most notable with requirements that are in the Washington SIP. To clarify which version of a requirement is applicable to the facility, the effective dates of applicable requirements are presented in the following tables.

Where WAC 173-400 is cited in this permit, it is as adopted by WAC 463-78-005 [8/27/15]. WAC 463-78-005 [8/27/15] adopts the version of WAC 173-400 in effect on December 29, 2012. Where the version of WAC 173-400 adopted in the latest version of WAC 463-78-005 differs from the SIP approved version for EFSEC, both versions are cited. Where WAC 173-401 is cited in this permit, it is as adopted by WAC 463-78-005 [8/27/15]. WAC 463-39-005 [8/27/15] adopts the version of WAC 173-401 in effect on September 10, 2011.

Federal Regulations	SIP State Effective Date	Effective Date
40 CFR 60	—	7/1/2015
40 CFR 61	—	7/1/2015
40 CFR 64	—	7/1/2015
40 CFR 68	—	7/1/2015
40 CFR 75	—	7/1/2015
40 CFR 82, Subparts B and F	—	7/1/2015
40 CFR 98	—	7/1/2015

State Regulations	SIP State Effective Date	State/Local Effective Date
WAC 173-400-035	—	12/29/12



State Regulations	SIP State Effective Date	State/Local Effective Date
WAC 173-400-036	—	12/29/12
WAC 173-400-040(1)(a & b) – Visible Emissions	9/20/93	Renumbered -040(2)(a & b)
WAC 173-400-040(2)(a & b) – Visible Emissions	—	12/29/2012
WAC 173-400-040(3) – Fugitive Emissions	9/20/93	Renumbered -040(4)
WAC 173-400-040(3) – Fallout	—	12/29/2012
WAC 173-400-040(4) – Fugitive Emissions	9/20/93	12/29/2012
WAC 173-400-040(5) – Odors	—	12/29/2012
WAC 173-400-040(5) – Detrimental Emissions	9/20/93	Renumbered -040(6)
WAC 173-400-040(6) – Detrimental Emissions	—	12/29/2012
WAC 173-400-040(7) – Concealment and Masking	9/20/93	Renumbered -040(8)
WAC 173-400-040(8) – Concealment and Masking	—	12/29/2012
WAC 173-400-040(8) – Fugitive Dust	9/20/93	Renumbered -040(9)
WAC 173-400-040(9) – Fugitive Dust	—	12/29/2012
WAC 173-400-060	3/22/91	12/29/2012
WAC 173-400-075	—	12/29/2012
WAC 173-400-105	9/20/93 SIP version does not include (7) & (8)	12/29/2012
WAC 173-400-107	9/20/93	12/29/2012– Note will be superseded by WAC 173-400-108/109 upon EPA approval
WAC 173-400-110	9/20/93	12/29/2012
WAC 173-400-114	—	12/29/2012
WAC 173-400-700	—	12/29/2012
WAC 463-78-115	—	8/27/15
WAC 173-401	—	9/10/11
WAC 173-425	10/18/1990	4/13/00
WAC 173-441	—	3/1/15
WAC 173-460	—	8/21/98

Regulatory Orders / Permits	SIP Federal Effective Date	Local Effective Date
EFSEC/95-02 Amendment 2	—	7/17/06
EFSEC/2009-01	—	9/4/09



### III. EMISSION UNIT IDENTIFICATION

The following table contains emission unit identifications. Descriptions of each emission unit are contained in the Basis Statement for this Air Operating Permit.

EU #	Generating Equipment/Activity	Emission Control
EU-1	Combustion Turbine #1	Oxidation catalyst and selective catalytic reduction system
EU-2	Combustion Turbine #2	Oxidation catalyst and selective catalytic reduction system
EU-3	Auxiliary Boiler	Low emission, external flue gas recirculation

### IV. PERMIT ADMINISTRATION

- P1. Credible Evidence** 40 CFR 51.212  
 40 CFR 52.12  
 40 CFR 52.33  
 40 CFR 60.11  
 40 CFR 61.12

For the purposes of submitting compliance certifications or establishing whether a violation of any term or condition of this permit has occurred or is occurring, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the permittee would have been in compliance with a specific term or condition if the appropriate performance or compliance test or procedure would have been performed.

- P2. Confidentiality of Records and Information** WAC 173-401-500(5)  
 WAC 173-401-620(2)(e)

In the case where the permittee has submitted information to EFSEC under a claim of confidentiality, EFSEC may also require the permittee to submit a copy of such information directly to the Administrator. [WAC 173-401-500(5)]

Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permittee or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. Permitting authorities shall maintain confidentiality of such information in accordance with RCW 70.94.205. [WAC 173-620(2)(e)]

- P3. Permit Duration** WAC 173-401-610

This permit shall be valid for a fixed term of 5 years.

- P4. Standard Provisions** WAC 173-401-620(2)

- (a) *Duty to comply.* The permittee must comply with all conditions of this Chapter 401 permit. Any permit noncompliance constitutes a violation of Revised Code of Washington (RCW) Chapter 70.94 and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- (b) *Need to halt or reduce activity not a defense.* It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) *Permit actions.* This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- (d) *Property rights.* This permit does not convey any property rights of any sort, or any exclusive privilege.
- (e) *Duty to provide information.* The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permittee or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. Permitting authorities shall maintain confidentiality of such information in accordance with RCW 70.94.205.
- (f) *Permit fees.* The permittee shall pay fees in accordance with RCW 70.94.162 as a condition of this permit in accordance with the permitting authority's fee schedule. Failure to pay fees in a timely fashion shall subject the permittee to civil and criminal penalties as prescribed in RCW 70.94.430 and 70.94.431.
- (g) *Emissions trading.* No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
- (h) *Severability.* If any provision of this permit is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable.
- (i) *Permit appeals.* This permit is subject to judicial review pursuant to WAC 463-78-140(3) and the Administrative Procedure Act, Chapter 34.05 RCW. This provision for appeal in this section is separate from and additional to any federal rights to petition and review under § 505(b) of the FCAA.
- (j) *Permit continuation.* This permit and all terms and conditions contained herein shall not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted. An application shield granted pursuant to WAC 173-401-



705(2) shall remain in effect until the renewal permit has been issued or denied if a timely and complete application has been submitted.

**P5. Insignificant Emission Unit - Permit Revision**

WAC 173-401-530(6)

Any emission unit or activity that qualifies as insignificant solely on the basis of provisions in WAC 173-401-530(1)(a) shall not exceed the emissions thresholds specified in WAC 173-401-530(4) until this permit is modified pursuant to WAC 173-401-725.

**P6. Federally Enforceable Requirements**

WAC 173-401-625

- (a) All terms and conditions in an air operating permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the FCAA, except as indicated in paragraph (b) below.
- (b) Notwithstanding subsection (a), any terms and conditions included in this permit that are not required under the FCAA or under any of its applicable requirements are specifically designated as "state" or "local" only, and are not federally enforceable under the FCAA. Terms and conditions so designated are not subject to the requirements of WAC 173-401-810.

**P7. Permit Shield**

WAC 173-401-640

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements that are specifically identified in this permit as of the date of permit issuance. Nothing in this permit shall alter or affect the following:

- (a) The provisions of section 303 of the FCAA (emergency orders), including the authority of the Administrator under that section;
- (b) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- (c) The applicable requirements of the acid rain program, consistent with section 408(a) of the FCAA;
- (d) The ability of EPA to obtain information from a source pursuant to section 114 of the FCAA; and
- (e) The ability of the permitting authority to establish or revise requirements for the use of reasonably available control technology (RACT) as defined in RCW 70.94.

**P8. Emergency Provision**

WAC 173-401-645

An "emergency" as defined in WAC 173-401-645(1) shall constitute an affirmative defense to an action brought for noncompliance with technology based emission limitations. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) An emergency occurred and that the permittee can identify the causes(s) of the emergency;
- (b) The permitted facility was at the time being properly operated;
- (c) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (d) The permittee submitted notice of the emergency to the permitting authority within two working days of the time when emission limitations were exceeded due to the emergency or shorter periods of time specified in an applicable requirement. This notice fulfills the requirement of WAC 173-401-615(3)(b) unless the excess emissions represent a potential threat to human health and safety. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

Burden of proof lies with the permittee.

**P9. Permit Expiration – Application Shield**

WAC 173-401-705(2)  
WAC 173-401-710(3)

Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with WAC 173-401-710(1) and WAC 173-401-500. All terms and conditions of the permit shall remain in effect after the permit expires if a timely and complete permit application has been submitted. Operation under the terms and conditions of the expired permit will be allowed until EFSEC takes final action on the renewal application.

**P10. Permit Revocation**

WAC 173-401-710(4)

The permitting authority may revoke a permit only upon the request of the permittee or for cause. The permitting authority shall provide at least thirty days written notice to the Permittee prior to revocation of the permit or denial of a permit renewal application. Such notice shall include an explanation of the basis for the proposed action and afford the permittee/applicant an opportunity to meet with the permitting authority prior to the authority's final decision. A revocation issued under this section may be issued conditionally with a future effective date and may specify that the revocation will not take effect if the permittee satisfies the specified conditions before the effective date.

**P11. Reopenings for Cause**

WAC 173-401-730

This permit shall be reopened and revised under any of the following circumstances:

- (a) Additional applicable requirements become applicable to a major air operating permit source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j);



- (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit;
- (c) The permitting authority or Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
- (d) The Administrator or the permitting authority determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings under this section shall not be initiated before a notice of such intent is provided to the air operating permit source by the permitting authority. Such notice shall be made at least 30 days in advance of the date that the permit is to be reopened, except that the permitting authority may provide a shorter time period in the case of an emergency.

#### **P12. Excess Emissions**

WAC 173-400-107

The permittee shall report excess emissions to EFSEC as soon as possible. Excess emissions due to startup or shutdown conditions or due to scheduled maintenance shall be considered unavoidable provided the source reports as required under subsection (1) of WAC 400-107 and adequately demonstrates that the excess emissions could not have been prevented or avoided.

Excess emissions due to upsets shall be considered unavoidable provided that the permittee reports as soon as possible but no later than 48 hours after discovery, and adequately demonstrates that:

- (a) The event was not caused by poor or inadequate design, operation, or maintenance, or any other reasonably preventable conditions;
- (b) The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (c) The operator took immediate and appropriate corrective action in a manner consistent with good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action, including slowing or shutting down the emission unit as necessary to minimize emissions, when the operator knew or should have known that an emission standard or permit condition was being exceeded; and
- (d) The owner or operator(s) actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, or other relevant evidence.

#### **V. GENERAL TERMS AND CONDITIONS**

**G1. Asbestos**40 CFR 61 Subpart M  
WAC 173-400-075

The permittee shall comply with the provisions of 40 CFR 61 Subpart M when conducting any renovation, demolition or asbestos storage activities at the facility.

**G2. Chemical Accident Prevention**

40 CFR 68

The permittee shall comply with the requirements of the Chemical Accident Prevention Provisions of 40 CFR 68 no later than the following dates:

- (a) Three years after the date on which a regulated substance, present above the threshold quantity, is first listed under 40 CFR 68.130; or
- (b) The date on which a regulated substance is first present above a threshold quantity in a process. [40 CFR 68.10]

**G3. Protection of Stratospheric Ozone**

40 CFR 82, Subparts B and F

The permittee shall comply with the standards for recycling and emissions reduction as provided in 40 CFR Part 82, Subparts B and F.

**G4. Duty to Supplement or Correct Application**

WAC 173-401-500(6)

The permittee, upon becoming aware that relevant facts were omitted or incorrect information was submitted in a permit application, shall promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit.

**G5. Certification**

WAC 173-401-520

All application forms, reports, and compliance certifications must be certified by a responsible official. Certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information contained in the submittal are true, accurate, and complete.

**G6. Inspection and Entry**WAC 173-401-630(2)  
WAC 173-400-105(3) & (4)

The permittee shall allow inspection and entry, upon presentation of credentials and other documents as may be required by law, by the permitting authority or an authorized representative to perform the following:

- (a) Enter upon the permittee's premises where an air operating permit source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;



- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (d) As authorized by WAC 400-105 and the FCAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**G7. Schedule of Compliance**

WAC 173-401-630(3)

The permittee shall continue to comply with all applicable requirements with which the source is currently in compliance, and meet on a timely basis any applicable requirements that become effective during the permit term.

**G8. Permit Renewal Application**

WAC 173-401-710(1)

The permittee shall submit a complete permit renewal application to EFSEC no later than the date established in the permit. This permit expires on **XXXX**. A renewal application is due on **October 10, 2015** and a complete renewal application is due no later than **XXXXX**.

**G9. Transfer of Ownership or Operational Control**

WAC 173-401-720(1)(d)

A change in permittee due to transfer of ownership or operational control of an affected source requires a request for administrative permit amendment as governed by WAC 173-401-720.

**G10. Portable Sources**WAC 173-400-036 (State Only)  
WAC 173-400-110(6)

A portable source with an order of approval from another Washington permitting authority may be authorized to operate at the facility without obtaining a site-specific permit from EFSEC if EFSEC approves the proposal on a case-by-case basis and all of the conditions of WAC 173-040-036(2) through (4) are met. Operation at any location under this provision is limited to one year or less.

**G11. Misrepresentation and Tampering**

WAC 173-400-105(6 &amp; 8) (State Only)

- (a) The permittee shall not make any false material statement, representation or certification in any form, notice, or report.
- (b) The permittee shall not render inaccurate any monitoring device or method required under Chapter 70.94 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

**G12. New Source Review**

WAC 173-400-110

WAC 173-400-700  
WAC 173-460-040 (State Only)

The permittee shall not construct or modify a source which is required to be reviewed under WAC 173-400 or WAC 173-460 without first receiving an approval or permit under such provisions. Portable sources may be exempt from the requirement to obtain a site-specific permit if they fulfill the criteria described in **G10 - Portable Sources**.

**G13. Replacement or Substantial Alteration of Emission Control Technology at an Existing Stationary Source**

WAC 173-400-114 (State Only)

Prior to replacing or substantially altering emission control technology or equipment installed at an existing stationary source or emission unit, the permittee shall file an air discharge permit application with EFSEC. Construction shall not commence on a project subject to review until EFSEC issues a final air discharge permit or other regulatory order. However, any air discharge permit application filed under this section shall be deemed to be approved without conditions if EFSEC takes no action within thirty days of receipt of a complete application.

**G14. Outdoor Burning**

WAC 173-425

The permittee is prohibited from conducting outdoor burning except as allowed by WAC 173-425.

**G15. Reporting of Emissions of Greenhouse Gases**

WAC 173-441 (State Only)

WAC 173-441 requires owners and operators of affected facilities to quantify and report emissions of greenhouse gases from applicable source categories listed in WAC 173-441-120. This regulation applies to any facility located in Washington State with total greenhouse gas emissions of ten thousand metric tons CO<sub>2</sub>e or more per calendar year. The permittee shall prepare and submit greenhouse gas reports to Ecology in accordance with the provisions of WAC 173-441-050 for each affected facility.



## VI. OPERATING TERMS AND CONDITIONS

The following table lists all federal, state, and/or locally enforceable operating terms and conditions applicable to the permittee. The legal authority for each requirement is enclosed in brackets below each requirement. Applicable requirements identified as having "plantwide" applicability apply to both EUs and IEUs. Some of the requirements have been partially adopted into the Washington State Implementation Plan (SIP). Only those parts adopted into the Washington SIP are federally enforceable. Requirements which are not required under the FCAA are denoted as state or local only. Monitoring requirements are used to provide a reasonable assurance of compliance with the applicable requirements, and may or may not involve the use of a reference test method.

Req. #	Requirement	Emission Point	Monitoring
Req-1	<p>Permittee shall not cause or permit any emission which exceeds 20% opacity for more than three minutes, in any one hour.</p> <p>Reference Method: Ecology Method 9A</p> <p>[WAC 173-400-040(1)(a)&amp;(b) – SIP Only WAC 173-400-040(2)(a)&amp;(b) – State Only]</p>	Plantwide	M1 Visible Emissions
Req-2	<p>Permittee shall not cause or permit fallout of particulate matter beyond the source's property boundary in sufficient quantity to interfere unreasonably with the use and enjoyment of the property on which the fallout occurs.</p> <p>[WAC 173-400-040(3)]</p>	Plantwide	M1 Visible Emissions, M2 Fugitive Emissions, M3 Complaints
Req-3	<p>Permittee shall take reasonable precautions to prevent the release of fugitive emissions from any emission unit which is a source of fugitive emissions.</p> <p>[WAC 173-400-040(3)(a) – SIP Only WAC 173-400-040(4)(a) – State Only]</p>	Plantwide	M2 Fugitive Emissions
Req-4	<p>Permittee shall use recognized good practice and procedures to reduce odors to a reasonable minimum.</p> <p>[WAC 173-400-040(5) – State Only]</p>	Plantwide	M3 Complaints
Req-5	<p>Permittee shall not cause or permit emissions detrimental to persons or property.</p> <p>[WAC 173-400-040(5) – SIP Only WAC 173-400-040(6) – State Only]</p>	Plantwide	M3 Complaints

Req. #	Requirement	Emission Point	Monitoring
Req-6	<p>Permittee shall not cause or permit the installation or use of any means which conceals or masks an emission which would otherwise violate any provisions of WAC 173-400-040.</p> <p>[WAC 173-400-040(7) – SIP Only WAC 173-400-040(8) – State Only]</p>	Plantwide	N/A
Req-7	<p>Permittee shall take reasonable precautions to prevent emissions of fugitive dust and operate the source to minimize emissions.</p> <p>Reference Method: Ecology Method 9A</p> <p>[WAC 173-400-040(9)(a) – SIP Only WAC 173-400-040(9)(a) – State Only]</p>	Plantwide	M2 Fugitive Emissions, M3 Complaints
Req-8	<p>Permittee shall not cause or allow emissions of particulate matter from a general process unit (excluding combustion) in excess of 0.1 gr/dscf of exhaust gas.</p> <p>Reference Method: EPA Method 5</p> <p>[WAC 173-400-060]</p>	Plantwide	M1 Visible Emissions
Req-9	<p>Permittee shall maintain and operate equipment in a manner consistent with good air pollution control practices for minimizing emissions.</p> <p>[40 CFR 60.11(d) WAC 463-78-115]</p>	EU-1, EU-2, EU-3	N/A
Req-10	<p>No fuel which contains sulfur in excess of 0.8 percent by weight shall be burned in the combustion turbines.</p> <p>[40 CFR 60.333(b) WAC 463-78-115]</p>	EU-1, EU-2	M6 SO <sub>2</sub> General Standard Monitoring
Req-11	<p>The combustion turbines shall be fueled only by natural gas except when natural gas is not available and during limited test periods. When natural gas is not available and during limited test periods, the combustion turbines may be fueled by "on-road specification diesel fuel" (oil) containing no more than 0.05% sulfur by weight, as specified in 40 CFR 80.29 as amended through July 1, 1992. Each turbine may not fire oil more than 720 hours per year.</p> <p>[EFSEC/95-02 Amendment 2, Conditions 1.1 &amp; 1.2]</p>	EU-1, EU-2	M5 CEMS and Process Monitoring, M6 SO <sub>2</sub> General Standard Monitoring



Req. #	Requirement	Emission Point	Monitoring
Req-12	<p>Emissions of nitrogen oxides from each HRSG exhaust stack shall not exceed any of the following:</p> <ul style="list-style-type: none"> <li>(a) 3.0 ppmvd @ 15% O<sub>2</sub> (1-hour average) when firing natural gas</li> <li>(b) 491 pounds per day when firing natural gas</li> <li>(c) 14.0 ppmvd @ 15% O<sub>2</sub> (1-hour average) when firing oil</li> <li>(d) 2,538 pounds per day when firing oil</li> <li>(e) 241 tons per year (annual total rolled monthly, both units combined)</li> </ul> <p>The hourly emission limit for oil firing shall apply in any hour in which both oil and natural gas are fired. If oil and natural gas are fired in the same calendar day, the calendar day emissions shall not exceed the weighted average emission limits for natural gas and oil firing, weighted according to the fraction of the day each fuel is fired. Except when reference method source testing is being conducted, these emission limits shall be applied on CEM clock hours and calendar days.</p> <p>Reference Method: EPA Method 7E</p> <p style="text-align: center;">[40 CFR 60.332(a)(1) WAC 463-78-115 [EFSEC/95-02 Amendment 2, Conditions 2.1, 2.2, 2.3, &amp; 24]</p>	EU-1, EU-2	M4 Performance Testing, M5 CEMS and Process Monitoring
Req-13	<p>Emissions of carbon monoxide from each HRSG exhaust stack shall not exceed any of the following:</p> <ul style="list-style-type: none"> <li>(a) 3.0 ppmvd @ 15% O<sub>2</sub> (1-hour average) when firing natural gas</li> <li>(b) 7.7 pounds per hour (1-hour average) when firing natural gas</li> <li>(c) 8.0 ppmvd @ 15% O<sub>2</sub> (1-hour average) when firing oil</li> <li>(d) 24.4 pounds per hour (1-hour average) when firing oil</li> </ul> <p>The hourly emission limits for oil firing shall apply in any hour in which both oil and natural gas are fired. Except when reference method source testing is being conducted, these emission limits shall be applied on CEM clock hours and calendar days.</p> <p>Reference Method: EPA Method 10</p> <p style="text-align: center;">[EFSEC/95-02 Amendment 2, Conditions 3.1, 3.2 &amp; 24]</p>	EU-1, EU-2	M4 Performance Testing, M5 CEMS and Process Monitoring
Req-14	<p>Emissions of sulfur dioxide from each HRSG exhaust stack shall not exceed any of the following:</p> <ul style="list-style-type: none"> <li>(a) 10.4 pounds per hour when firing natural gas</li> <li>(b) 119 pounds per hour when firing oil</li> </ul> <p>The hourly emission limits for oil firing shall apply in any hour in which both oil and natural gas are fired.</p> <p style="text-align: center;">[EFSEC/95-02 Amendment 2, Conditions 4.1 &amp; 4.2]</p>	EU-1, EU-2	M4 Performance Testing, M5 CEMS and Process Monitoring, M6 SO <sub>2</sub> General Standard Monitoring

Req. #	Requirement	Emission Point	Monitoring
Req-15	<p>Emissions of volatile organic compounds from each HRSG exhaust stack shall not exceed any of the following:</p> <ul style="list-style-type: none"> <li>(a) 7.0 pounds per hour or 152 pounds per day, whichever is more restrictive, when firing natural gas</li> <li>(b) 11.5 pounds per hour or 252 pounds per day, whichever is more restrictive, when firing oil</li> </ul> <p>The hourly emission limits for oil firing shall apply in any hour in which both oil and natural gas are fired. If oil and natural gas are fired in the same calendar day, the calendar day emissions shall not exceed the weighted average emission limits for natural gas and oil firing, weighted according to the fraction of the day each fuel is fired. Emission rates shall be expressed "as propane" unless speciation of the volatile organic compounds has been conducted sufficient to determine actual mass emission rates.</p> <p>Reference Method: EPA Method 18 or 25A</p> <p>[EFSEC/95-02 Amendment 2, Conditions 5.1 &amp; 5.2]</p>	EU-1, EU-2	M4 Performance Testing, M5 CEMS and Process Monitoring
Req-16	<p>Emissions of filterable PM<sub>10</sub> from each HRSG exhaust stack shall not exceed any of the following:</p> <ul style="list-style-type: none"> <li>(a) 379 pounds per day when firing natural gas</li> <li>(b) 480 pounds per day when firing oil</li> </ul> <p>If oil and natural gas are fired in the same calendar day, the calendar day emissions shall not exceed the weighted average emission limits for natural gas and oil firing, weighted according to the fraction of the day each fuel is fired.</p> <p>Reference Method: EPA Method 5 or 201A</p> <p>[EFSEC/95-02 Amendment 2, Conditions 6.1 &amp; 6.2]</p>	EU-1, EU-2	M4 Performance Testing, M5 CEMS and Process Monitoring
Req-17	<p>Emissions of H<sub>2</sub>SO<sub>4</sub> (sulfuric acid) from each HRSG exhaust stack shall not exceed any of the following:</p> <ul style="list-style-type: none"> <li>(a) 2.0 pounds per hour when firing natural gas</li> <li>(b) 19.0 pounds per hour when firing oil</li> </ul> <p>The hourly emission limits for oil firing shall apply in any hour in which both oil and natural gas are fired.</p> <p>Reference Method: EPA Conditional Test Method 8A (CTM-8A (NCASI Method 8A))</p> <p>[EFSEC/95-02 Amendment 2, Conditions 7.1 &amp; 7.2]</p>	EU-1, EU-2	M4 Performance Testing, M5 CEMS and Process Monitoring, M6 SO <sub>2</sub> General Standard Monitoring
Req-18	<p>Opacity from each HRSG exhaust stack shall not exceed 10 percent over a six minute average as measured by EPA Reference Method 9, or an equivalent method approved in advance by EFSEC.</p> <p>Reference Method: EPA Method 9</p> <p>[EFSEC/95-02 Amendment 2, Condition 8]</p>	EU-1, EU-2	M1 Visible Emissions



Req. #	Requirement	Emission Point	Monitoring
Req-19	<p>Emissions of ammonia from each HRSG exhaust stack shall not exceed any of the following:</p> <ul style="list-style-type: none"> <li>(a) 10.0 ppmvd @ 15% O<sub>2</sub> (1-hour average) when firing natural gas</li> <li>(b) 612 pounds per day when firing natural gas</li> <li>(c) 10.0 ppmvd @ 15% O<sub>2</sub> (1-hour average) when firing oil</li> <li>(d) 683 pounds per day when firing oil</li> </ul> <p>If oil and natural gas are fired in the same calendar day, the calendar day emissions shall not exceed the weighted average emission limits for natural gas and oil firing, weighted according to the fraction of the day each fuel is fired.</p> <p>Reference Method: BAAQMD Method ST-1B</p> <p>[EFSEC/95-02 Amendment 2, Conditions 9.1, 9.2, 9.3 &amp; 9.4]</p>	EU-1, EU-2	M4 Performance Testing, M5 CEMS and Process Monitoring
Req-20	<p>Turbine startups and shutdowns include fuel-switching activities. No more than 2 startups may occur within a 24-hour period, and no more than 200 startups may occur per calendar year (startups resulting from upset conditions are exempted). Startups end when a turbine reaches 60% load, ammonia flow is stabilized, and the selective catalytic reduction and oxidation catalyst systems have reached stable normal operating temperatures, or when one of the following time limits is reached, whichever occurs first:</p> <ul style="list-style-type: none"> <li>(a) On a cold startup, 5 hours have elapsed since fuel was first fired in the combustion turbine. A cold startup is any startup occurring after the combustion turbine has been shut down for 72 hours or more.</li> <li>(b) For all other startups, 3 hours have elapsed since fuel was first fired in the combustion turbine.</li> </ul> <p>Shutdowns are limited to 3 hours per occurrence. Shutdowns begin when the combustion turbine is initially ramped down from normal operation with the intent of shutting the unit down. Shutdowns end when fuel feed to the combustion turbine ceases.</p> <p>[EFSEC/95-02 Amendment 2, Conditions 10.2, 10.3, 10.6, &amp; 10.7]</p>	EU-1, EU-2	M5 CEMS and Process Monitoring

Req. #	Requirement	Emission Point	Monitoring
Req-21	<p>With the exception of the emission limits listed below, the emission and opacity limitations from EFSEC/95-02 – Amendment 2 do not apply during defined startup and shutdown periods. During startup and shutdown, emissions from each HRSG exhaust stack shall not exceed any of the following:</p> <ul style="list-style-type: none"> <li>(a) 263 pounds CO per hour (averaged per occurrence) when firing natural gas</li> <li>(b) 417 pounds CO per hour (averaged per occurrence) when firing oil</li> <li>(c) 292 pounds NO<sub>x</sub> per hour (averaged per occurrence) when firing natural gas</li> <li>(b) 407 pounds NO<sub>x</sub> per hour (averaged per occurrence) when firing oil</li> </ul> <p>Reference Method: EPA Methods 7E and 10</p> <p>[EFSEC/95-02 Amendment 2, Conditions 10.1, 10.4, &amp; 10.5]</p>	EU-1, EU-2	M5 CEMS and Process Monitoring
Req-22	<p>Sampling ports and platforms shall be provided on each stack, after the final pollution control device. The ports shall meet the requirements of 40 CFR 60, Method 20.</p> <p>[EFSEC/95-02 Amendment 2, Condition 12]</p>	EU-1, EU-2	N/A
Req-23	<p>Adequate permanent and safe access to the test ports shall be provided. Other arrangements may be acceptable if approved by EFSEC prior to installation. Adequate utilities for sampling and testing equipment shall be provided.</p> <p>[40 CFR 60.8(e) WAC 463-78-115 EFSEC/95-02 Amendment 2, Condition 13]</p>	EU-1, EU-2	N/A
Req-24	<p>Operation and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed. Copies of the manuals shall be available to EFSEC or the authorized representative of EFSEC. If a failure to follow the requirements of the manuals results in excess emissions that failure may be considered credible evidence that the event was caused by poor or inadequate operation or maintenance for purposes of applying WAC 173-400-107.</p> <p>[EFSEC/95-02 Amendment 2, Conditions 19.1 &amp; 19.2]</p>	EU-1, EU-2	N/A
Req-25	<p>Permittee shall hold SO<sub>2</sub> allowances not less than the total annual emissions of SO<sub>2</sub> for the previous calendar year (see Appendix D Acid Rain Permit).</p> <p>[40 CFR 72.9(c)(1) WAC 173-406-106 and -400]</p>	EU-1, EU-2	M6 SO <sub>2</sub> General Standard Monitoring



Req. #	Requirement	Emission Point	Monitoring										
Req-26	<p>Emissions from the Auxiliary Boiler shall not exceed:</p> <table><tr><td><u>Pollutant</u></td><td><u>Emission Limit</u></td></tr><tr><td>Nitrogen oxides</td><td>12.0 ppmvd @ 3% O<sub>2</sub> (1-hour average)</td></tr><tr><td>Carbon monoxide</td><td>50 ppmvd @ 3% O<sub>2</sub> (1-hour average)</td></tr><tr><td>PM<sub>10</sub></td><td>0.3 pounds per hour</td></tr><tr><td>PM<sub>2.5</sub></td><td>0.3 pounds per hour</td></tr></table> <p>Reference Methods: EPA Methods 7E, 10, 201A (EPA Method 5 is an alternative if all PM is assumed to be PM<sub>2.5</sub>), and 202.</p> <p>[EFSEC/2009-01 Condition 1]</p>	<u>Pollutant</u>	<u>Emission Limit</u>	Nitrogen oxides	12.0 ppmvd @ 3% O <sub>2</sub> (1-hour average)	Carbon monoxide	50 ppmvd @ 3% O <sub>2</sub> (1-hour average)	PM <sub>10</sub>	0.3 pounds per hour	PM <sub>2.5</sub>	0.3 pounds per hour	EU-3	M7 Auxiliary Boiler Monitoring, M8 Auxiliary Boiler Source Emissions Testing and Performance Monitoring
<u>Pollutant</u>	<u>Emission Limit</u>												
Nitrogen oxides	12.0 ppmvd @ 3% O <sub>2</sub> (1-hour average)												
Carbon monoxide	50 ppmvd @ 3% O <sub>2</sub> (1-hour average)												
PM <sub>10</sub>	0.3 pounds per hour												
PM <sub>2.5</sub>	0.3 pounds per hour												
Req-27	<p>Opacity of emissions from the Auxiliary Boiler shall not exceed zero percent for more than three minutes in any one hour period as determined in accordance with EPA Method 9 utilizing data reduction as described in Ecology Method 9A.</p> <p>Reference Method: EPA Method 9 with data reduction using Ecology Method 9A</p> <p>[EFSEC/2009-01 Condition 2]</p>	EU-3	M1 Visible Emissions										
Req-28	<p>The Auxiliary Boiler shall burn only natural gas as fuel.</p> <p>[EFSEC/2009-01 Condition 3]</p>	EU-3	N/A										

## VII. MONITORING TERMS AND CONDITIONS

To assure compliance with all applicable requirements, the permittee shall perform the monitoring program specified below. Each monitoring requirement is indexed according to the underlying requirement(s). Pursuant to WAC 173-401-530(2)(c), none of the following monitoring requirements apply to IEUs except as indicated. Records of monitoring activities shall be maintained in accordance with Section VIII of this permit.

### M1. Visible Emission Monitoring

WAC 173-401-615(1) - (All sources other than EU-1 and EU-2)  
 EFSEC/95-02 Amendment 2, Conditions 8.1, 8.2, 8.3, & 8.4 – (EU-1 and EU-2)

This monitoring requirement applies to Operating Terms and Conditions 1, 2, 8, 18, and 27.

The permittee shall perform visible emissions monitoring of EU-1 and EU-2 during daylight hours on the following schedule:

1. Weekly when firing natural gas
2. Daily when firing fuel oil

Visible emissions from other sources shall be monitored if indicated by a complaint or if otherwise unusual emissions are observed.

Visible emissions monitoring shall consist of at least 6 minutes of observation using EPA Method 22 or EPA Method 9 and Washington Department of Ecology Method 9A (EPA Methods 9 and 22 may be found at 40 CFR 60, Appendix A). If visible emissions are observed from EU-1 or EU-2 when conducting visible emissions monitoring, both EPA Method 9 and Washington Department of Ecology Method 9A must be utilized to demonstrate compliance with Condition 8 of EFSEC/95-02 Amendment 2 and the State opacity standards respectively. The EPA Method 9 or Washington Department of Ecology Method 9A monitoring must be conducted within 2 non-holiday weekdays of observing visible emissions with EPA Method 22. If a holiday falls during this 2-day period, the monitoring shall be performed on the first non-holiday weekday after the holiday. If the turbine is shut down during this 2-day period before monitoring can be conducted, then monitoring shall be conducted on the first non-holiday weekday after restarting.

EPA Method 22 may only be used if no visible emissions are observed during the 6-minute observation period.

If visible emissions are observed during visible emissions monitoring of sources other than EU-1 or EU-2, Washington Department of Ecology Method 9A must be used to determine the opacity of emissions.

When visible emissions monitoring with Washington Department of Ecology Method 9A is necessary, a minimum of 6 minutes of observation shall be conducted. For every reading in excess of the opacity standard, opacity shall be read for an additional 6 minutes to a maximum total of 60 minutes or 13 readings in excess of the opacity standard. For example, if a single reading of 30% opacity is made during the initial 6-minute observation period, then monitoring is required for an additional 6 minutes. If two readings of 30% opacity are recorded during the second observation period, two additional 6-minute observations must be performed. Observations continue in this manner until 60 minutes of observations or 13 readings in excess of the opacity standard have been recorded. Implementation of corrective action does not relieve the permittee from the obligation of reporting permit deviations as specified in WAC 401-615(3).

## **M2. Fugitive Emissions Monitoring**

WAC 173-401-615(1)

This monitoring requirement applies to Operating Terms and Conditions 2, 3, and 7.

The permittee shall perform monthly inspections of the facility during daylight hours to identify any excess fugitive emissions, including fugitive dust. Inspections shall also be conducted if indicated by a complaint or if otherwise unusual emissions are observed. Whenever fugitive emissions, including excessive fugitive dust, are observed during the monthly inspection or any other time, the permittee shall verify the source of the emissions. The permittee shall within 2 hours of discovery initiate investigation of the equipment involved to confirm whether the equipment is or is not experiencing a malfunction, and whether reasonable precautions and good work practices are being employed to minimize emissions.



**M3. Complaint Monitoring**

WAC 173-401-615(1)

This monitoring requirement applies to Operating Terms and Conditions 2, 4, 5, and 7.

The permittee shall record, and maintain record of, any air quality related complaints concerning the Chehalis Generation Facility that are received by either the permittee or EFSEC. All complaints shall be investigated no later than one workday after the permittee has been notified, and those complaints subject to requirement M2 shall be addressed in a timely manner consistent with M2. The permittee shall investigate the validity of each complaint and the cause of any emissions that prompted the complaint, and initiate corrective action, if needed, in response to the complaint. Within 24 hours of notification and investigation, the permittee shall resolve the subject of the complaint, or notify EFSEC by the next working day of progress made in resolving the complaint.

**M4. Performance Testing**

EFSEC/95-02 Amendment 2, Conditions 15.1 &amp; 15.2

This monitoring requirement applies to Operating Terms and Conditions 12, 13, 14, 15, 16, 17, and 19.

The permittee shall conduct source testing of EU-1 and EU-2 at least once for every eight calendar quarters to quantify emissions of PM<sub>10</sub>, VOCs, and H<sub>2</sub>SO<sub>4</sub>. This testing must be completed no more than 720 operating hours after the end of the eighth calendar quarter. An operating quarter is any quarter in which the combustion turbine is operated for 168 or more hours.

Source testing for these parameters is to coincide with the Relative Accuracy Test Audit (RATA) required for each CEMS. If the results of three consecutive tests indicates that the source can maintain compliance with a specific pollutant's (PM<sub>10</sub>, VOCs, or H<sub>2</sub>SO<sub>4</sub>) emission limitations, and EFSEC agrees to allow a reduced frequency of source testing, then the compliance testing frequency for that pollutant can be reduced to once every four calendar years, until a test indicates noncompliance. When a compliance test for a pollutant indicates noncompliance with the emission limitations for a specific pollutant, the frequency of source testing to quantify emissions of that pollutant shall return to once for every eight calendar quarters until the above criteria are met again.

Source testing shall consist of a minimum of three 60-minute test runs. All source testing shall be conducted at base load. Base load is the normal maximum loading for continuous turbine operation as determined by turbine exhaust temperature levels.

**M5. Continuous Emission and Process Monitoring**

WAC 173-400-105(7)

40 CFR 75

WAC 173-401-630(1)

EFSEC/95-02 Amendment 2, Conditions 14.1, 14.2, 14.3, 14.5, &amp; 16

This monitoring requirement applies to Operating Terms and Conditions 11, 12, 13, 14, 15, 16, 17, 19, 20, and 21.

A CEMS shall be installed and maintained to monitor NO<sub>x</sub>, CO, and NH<sub>3</sub> emissions from each combustion turbine exhaust stack as follows:

- (a) The permittee shall install and maintain a system for monitoring the concentration and emission rate of NO<sub>x</sub>, emission rates of CO<sub>2</sub>, and the concentration of O<sub>2</sub>, from each combustion turbine exhaust stack in accordance with the requirements and specifications found in the following regulations:
- 40 CFR 75 – Continuous Emissions Monitoring

In order to provide for a reasonable assurance of compliance with the permitted emission limits, the NO<sub>x</sub> CEMS shall meet the following performance criteria:

- A Relative Accuracy of 20% when the average reference method value is used in the denominator of Equation A-10 of 40 CFR 75; or a Relative Accuracy of 10% when the applicable emission standard (3.0 ppmvd @ 15% O<sub>2</sub>, 0.011 lb/MMBtu) is used in the denominator of Equation A-10 of 40 CFR 75 in place of the arithmetic mean of the reference method values. For the purposes of this requirement, the Relative Accuracy shall be calculated from the CEMS and Reference Method output in units of pounds of NO<sub>x</sub> per million British thermal units (lb/MMBtu) of fuel consumed.
  - The calibration error as defined in 40 CFR 75, Appendix A, Section 7.2.1 shall not exceed 5%.
- (b) The permittee shall install and maintain a system for monitoring the concentration and emission rate of CO from each combustion turbine exhaust stack in accordance with the requirements and specifications found in the following regulations:
- 40 CFR 60, Appendix B - Performance Specification 4A "Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources"
  - 40 CFR 60, Appendix F "Quality Assurance Procedures"
  - WAC 173-400-105(7) "Continuous Emission Monitoring System Operating Requirements"

In order to provide for a reasonable assurance of compliance with the permitted emission limits, the CEMS shall meet the following performance criteria:

- A Relative Accuracy of 20% when the average reference method value is used in the denominator of Equation 2-6 of 40 CFR 60, Performance Specification 2; or a Relative Accuracy of 10% when the applicable emission standard (3.0 ppmvd @ 15% O<sub>2</sub>) is used in the denominator of Equation 2-6 of 40 CFR 60, Performance Specification 2. For the purposes of this requirement, the Relative Accuracy shall be calculated from the CEMS and Reference Method output in units of parts per million, dry volume basis, corrected to 15% O<sub>2</sub>.
- The criteria for excessive audit inaccuracy found in Section 5.2.3(2) of 40 CFR 60, Appendix F, Procedure 1 (cylinder gas audits) is replaced by a maximum audit inaccuracy of ±15 percent of the average audit value or 0.5 ppm, whichever is greater.



Notwithstanding the requirements in the above regulations, Relative Accuracy Test Audits (RATAs) shall be conducted at least once for every four operating quarters or eight calendar quarters, whichever comes first. RATAs shall be completed no later than 720 operating hours after the end of the fourth operating quarter or eighth calendar quarter, whichever comes first. An operating quarter is any quarter in which the combustion turbine is operated for 168 or more hours.

- (c) The permittee shall install and maintain a system for monitoring the concentration and emission rate of  $\text{NH}_3$  from each combustion turbine exhaust stack in accordance with the requirements and specifications found in the following regulations:
- 40 CFR 60, Appendix B - Performance Specification 2 "Specifications and Test Procedures for  $\text{SO}_2$  and  $\text{NO}_x$  Continuous Emission Monitoring Systems in Stationary Sources"
  - 40 CFR 60, Appendix F "Quality Assurance Procedures" In order to provide for a reasonable assurance of compliance with the permitted emission limits, the criteria for excessive audit inaccuracy in Section 5.2.3(2) of Procedure 1 is replaced by a maximum audit inaccuracy of  $\pm 15$  percent of the average audit value or 1.0 ppm, whichever is greater.
  - WAC 173-400-105(7) "Continuous Emission Monitoring System Operating Requirements"

Notwithstanding the requirements in the above regulations, Relative Accuracy Test Audits (RATAs) shall be conducted at least once for every four operating quarters or eight calendar quarters, whichever comes first. RATAs shall be completed no later than 720 operating hours after the end of the fourth operating quarter or eighth calendar quarter, whichever comes first. An operating quarter is any quarter in which the combustion turbine is operated for 168 or more hours.

- (d) The following hourly average CEMS/data acquisition system (DAS) data shall be collected for each combustion turbine:
- (1)  $\text{NO}_x$  emission concentration (ppmvd @ 15%  $\text{O}_2$ , 1-hour average);
  - (2)  $\text{NO}_x$  emission rate (pounds per calendar day);
  - (3) CO emission concentration (ppmvd @ 15%  $\text{O}_2$ , 1-hour average);
  - (4) CO emission rate (lb/hr, 1-hour average);
  - (5)  $\text{NH}_3$  emission concentration (ppmvd @ 15%  $\text{O}_2$ , 1-hour average);
  - (6)  $\text{NH}_3$  emission rate (pounds per calendar day)
  - (7)  $\text{NH}_3$  flow to the SCR system (lb/hr, 1-hour average);
  - (8)  $\text{O}_2$  concentration (dry volume percent, 1-hour average);
  - (9) Turbine fuel consumption (MMBtu/hr, 1-hour total) and type (gas or oil); and
  - (10) Turbine generator net electrical output (megawatts, 1-hour total).

**M6. SO<sub>2</sub> General Standard Monitoring**

40 CFR 60.334(h)(3)  
WAC 463-78-115  
40 CFR 75.11(d)

This monitoring requirement applies to Operating Terms and Conditions 10, 11, 14, 17, and 25.

The permittee shall calculate hourly SO<sub>2</sub> emission rates in accordance with 40 CFR Part 75 Appendix D. For pipeline natural gas, an emission factor of 0.0006 lb/MMBtu may be used to calculate emissions. For natural gas that does not qualify as pipeline natural gas, SO<sub>2</sub> emissions shall be calculated using equation D-1h of 40 CFR 75 and the results of fuel sulfur content monitoring as provided in 40 CFR 75, Appendix D, Section 2.3.

**M7. Auxiliary Boiler Monitoring**

40 CFR 60.48c(g)  
EFSEC/2009-01 Conditions 4 & 5

This monitoring requirement applies to Operating Term and Condition 26.

The total amount of natural gas consumed by the Auxiliary Boiler shall be recorded for each calendar month.

Maintenance activities for the Auxiliary Boiler that affect emissions shall be logged for each occurrence.

**M8. Auxiliary Boiler Source Emissions Testing and Performance Monitoring**

EFSEC/2009-01 Conditions 9 & 10

This monitoring requirement applies to Operating Term and Condition 26.

Source emissions testing of the Auxiliary Boiler shall be conducted initially and at least once every 60 calendar months (no later than the end of the calendar month during which the initial source emissions testing was conducted) in accordance with Appendix B of this Permit. Initial source emissions testing shall be conducted within 60 days after achieving the maximum operating rate but no later than 180 days after initial operation. The Permittee shall provide adequate and safe access to sampling ports meeting the criteria of EPA Method 1 (40 CFR 60, Appendix A).

Performance monitoring of the Auxiliary Boiler shall be conducted as described in Appendix C of this Permit no later than the end of April each year in which source emissions testing is not conducted.

**VIII. RECORDKEEPING TERMS AND CONDITIONS**

All monitoring records shall be maintained in a readily accessible form for a minimum period of five years from the date of the monitoring sample, measurement, report, or application (WAC 173-401-615(2)(c)). Pursuant to WAC 173-401-530(2)(c), none of the recordkeeping requirements



apply to IEUs. The permittee shall maintain records of required monitoring per M1 through M8. The following information shall be included in the records as applicable:

**K1. General Recordkeeping**

WAC 173-401-615(2)  
EFSEC/2009-01, Condition 6

Permittee is required to keep the following records:

(a) Inspections & Certifications

- (i) The date, place, and time of activity;
- (ii) Who conducted the inspection or certification;
- (iii) The operating conditions existing at the time of the activity; and
- (iv) Compliance status of each monitored requirement as described in this permit; and

(b) Complaints

- (i) The date, and time of complaint;
- (ii) Name of the complainant;
- (iii) The nature of the complaint;
- (iv) Date and time of the follow-up inspection;
- (v) The results of the inspection and the cause of the complaint, if discovered; and
- (vi) Corrective action taken in response to complaints and when such action was initiated.

(c) Upset Conditions (including excess emissions)

Auxiliary Boiler [EFSEC/2009-01, Condition 6]

- (i) Excess emissions, and upset conditions that cause excess emissions, shall be recorded for each occurrence.

(d) Sampling and Emissions Testing

- (i) The date, place, and time sampling was performed;
- (ii) The entity that performed the sampling;
- (iii) The analytical techniques used to take the sample or perform the observation;
- (iv) The operating conditions existing at the time of sampling or measurement;
- (v) The date analyses were performed;
- (vi) The entity that performed the analyses;
- (vii) The analytical techniques or methods used to perform the analyses; and
- (viii) The results of such analyses.

(e) General Recordkeeping (parameter logging requirements, design parameters, etc.)

- (i) The date and time the data was collected (as applicable) and, if not recorded by a computerized data acquisition system, the name of the person making the record; and
- (ii) The relevant parameters or data.

**K2. Continuous Emissions and Process Data Recordkeeping Requirements**

40 CFR 75.57, 75.58, &amp; 75.59

WAC 173-401-615(2)

WAC 173-400-105(7)

The permittee shall record and maintain for emission units EU-1 and EU-2 a file of all measurements, data, reports, and other information required by this permit at the source in a readily accessible form suitable for inspection for at least five (5) years from the date of each record. This file shall include all information required in 40 CFR Part 75 Sections 57, 58, and 59.

For all periods of operation, the file shall include the following data for each combustion turbine exhaust stack (EU-1 and EU-2):

- (a) NO<sub>x</sub> emission concentration (ppmvd @ 15% O<sub>2</sub>, 1-hour average);
- (b) NO<sub>x</sub> emission rate (pounds per calendar day);
- (c) CO emission concentration (ppmvd @ 15% O<sub>2</sub>, 1-hour average);
- (d) CO emission rate (lb/hr, 1-hour average);
- (e) NH<sub>3</sub> emission concentration (ppmvd @ 15% O<sub>2</sub>, 1-hour average);
- (f) NH<sub>3</sub> emission rate (pounds per calendar day)
- (g) NH<sub>3</sub> flow to the SCR system (lb/hr, 1-hour average);
- (h) O<sub>2</sub> concentration (dry volume percent, 1-hour average);
- (i) Turbine fuel consumption (MMBtu/hr, 1-hour total) and type (gas or oil);
- (j) Turbine generator net electrical output (megawatts, 1-hour total).

The permittee must maintain a record of all repairs, adjustments, and maintenance performed on the CO and NH<sub>3</sub> monitoring systems. [WAC 173-400-105(7)(e)]

**IX. REPORTING TERMS AND CONDITIONS**

All required reports must be certified by a responsible official consistent with WAC 173-401-520. Where an applicable requirement requires reporting more frequently than once every six months, the responsible official's certification need only be submitted once every six months, covering all required reporting since the date of the last certification.

Addresses of regulatory agencies are the following, unless otherwise instructed:

Energy Facility Site Evaluation Council  
1300 South Evergreen Park Drive SW  
PO Box 43172  
Olympia, WA 98504-3172

Clean Air Act Compliance Manager  
US EPA Region 10, Mail Stop OCE-101  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101

**R1. Deviations from Permit Conditions**

WAC 173-400-107

WAC 173-401-615(3)(b)

EFSEC/95-02 Amendment 2, Condition 18

EFSEC/2009-01, Conditions 11 &amp; 13



Deviations from permit requirements shall be reported no later than thirty days after the end of the month during which the deviation is discovered. Deviations that represent a potential threat to human health or safety shall be reported as soon as possible but no later than twelve hours after the deviation is discovered. Reports of deviations shall include:

- (a) Identification of the emission unit(s) involved;
- (b) The duration of the event including the beginning and end times;
- (c) For emission and process parameter excesses, the magnitude of the excess;
- (d) Any other agency contacted; and
- (e) A brief description of the event, including:
  - (i) Whether or not the deviation was due to an upset condition;
  - (ii) The probable cause of the deviation; and
  - (iii) The corrective action taken or planned and when the corrective action was, or will be initiated.

In accordance with WAC 400-107, excess emissions that the permittee wishes to be considered unavoidable must be reported as soon as possible. The permittee shall report the upset condition by telephone, e-mail or facsimile as initial notification to EFSEC.

## **R2. Complaint Reports**

WAC 173-401-615(3)

The permittee shall report all complaints related to air quality and the Chehalis Generation Facility to EFSEC within three business days of receipt. Complaint reports shall include the date and time of the complaint, the name of the complainant, and the nature of the complaint.

## **R3. Quarterly Reports**

40 CFR 75.64

WAC 173-401-615(3)

WAC 173-401-105(7)

EFSEC/95-02 Amendment 2, Conditions 16 & 17

The permittee shall submit the following CEMS and process data to EFSEC and EPA for each combustion turbine no later than 30 days after the end of each calendar quarter:

- (a) NO<sub>x</sub> emission concentration (ppmvd @ 15% O<sub>2</sub>, 1-hour average);
- (b) NO<sub>x</sub> emission rate (pounds per calendar day);
- (c) CO emission concentration (ppmvd @ 15% O<sub>2</sub>, 1-hour average);
- (d) CO emission rate (lb/hr, 1-hour average);
- (e) NH<sub>3</sub> emission concentration (ppmvd @ 15% O<sub>2</sub>, 1-hour average);
- (f) NH<sub>3</sub> emission rate (pounds per calendar day)
- (g) NH<sub>3</sub> flow to the SCR system (lb/hr, 1-hour average);
- (h) O<sub>2</sub> concentration (dry volume percent, 1-hour average);
- (i) Turbine fuel consumption (MMBtu/hr, 1-hour total) and type (gas or oil); and
- (j) Turbine generator net electrical output (megawatts, 1-hour total).

The permittee shall submit all electronic monitoring reports required by 40 CFR 75 to EFSEC and EPA for each combustion turbine no later than 30 days after the end of each calendar quarter. For each report, a copy of EPA's response shall be submitted with each submission to EFSEC.

For each reporting element with an hourly averaging or totalizing period, the permittee shall provide data for each clock hour. For each reporting element with a daily totalizing period, the permittee shall provide data for each calendar day. The permittee shall indicate in each report whether the time is reported as "standard time" or "daylight savings" time.

The permittee shall submit all reports required by 40 CFR 75 to EFSEC (in addition to the required electronic submission to EPA's Clean Air Markets Division) in the form (electronic or paper) required by the EPA. The permittee shall submit all CEMS and process data listed in "a" through "j" above in an electronic spreadsheet format approved by EFSEC.

The permittee must submit the following CEMS and process data to EFSEC for each combustion turbine CO and NH<sub>3</sub> CEMS no later than 30 days after the end of each calendar quarter: [WAC 173-400-105(7)]

(k) The number of hours that the monitored emission unit operated each month and the number of valid hours of monitoring data that the monitoring system recovered each month;

(l) The date, time period, and cause of each failure to meet the data recovery requirements of WAC 173-400-105(7)(a) and any actions taken to ensure adequate collection of such data;

(m) The date, time period, and cause of each failure to recover valid hourly monitoring data for at least 90 percent of the hours that the turbine was operated each day; and

(n) The results of all cylinder gas audits conducted during the month.

#### **R4. Semi-annual Reports**

WAC 173-401-615(3)

Consistent with WAC 173-401-615(3) the permittee shall submit to EFSEC by October 15<sup>th</sup> and April 15<sup>th</sup> for the six month periods January through June and July through December respectively, a report on the status of all monitoring requirements. All instances of deviation from permit requirements shall be clearly identified. The semi-annual report shall contain a certification of any reports submitted during the semi-annual period that have not already been certified. The certification shall be consistent with WAC 173-401-520.

#### **R5. Annual Compliance Certifications**

WAC 173-401-630(5)

(a) General: The permittee shall submit to EFSEC and EPA a certification of compliance with all terms and conditions of this permit in accordance with WAC 173-401-630(5)(d). The permittee shall submit by April 15<sup>th</sup> of the following year the following information for the period of January through December:

- (i) Identification of each term or condition of the permit that is the basis of the certification;
- (ii) Statement of compliance status;
- (iii) Whether compliance was continuous or intermittent;
- (iv) Method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with WAC 173-401-615;
- (v) Such other facts as EFSEC may require to determine the compliance status of the source; and



- (vi) Such additional requirements as may be specified pursuant to Sections 114(a)(3) and 504(b) of the FCAA.

**R6. Emission Inventory Reports**

WAC 173-400-105  
EFSEC/2009-01, Condition 14

The permittee shall submit an inventory of annual emissions from the source each calendar year to EFSEC by April 15<sup>th</sup> of the following year in accordance with WAC 173-400-105. The inventory shall include stack and fugitive emissions of NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, PM, and toxic air pollutants identified in WAC 173-460.

The following emissions related records for the Auxiliary Boiler shall be reported to EFSEC by March 15<sup>th</sup> for the previous calendar year:

- (a) The total amount of natural gas consumed by the Auxiliary Boiler;
- (b) Air emissions of criteria air pollutants, volatile organic compounds, hazardous air pollutants, and toxic air pollutants.

**R7. Source Test Reports**

40 CFR 75.60(b)  
EFSEC/95-02 Amendment 2, Condition 17.5  
EFSEC/2009-01, Condition 12

Reports of all required source or emissions testing of the combustion turbines shall be submitted to EFSEC no later than 30 days after the end of the calendar quarter during which the testing was performed. For relative accuracy test audits conducted to comply with 40 CFR 75 requirements, if requested in writing (or by electronic mail) by EPA Regional X or EFSEC, the designated representative shall submit a hardcopy report to EPA Region X or EFSEC within 45 days after test completion or within 15 days of receiving the request, whichever is later.

The results of all source emissions testing of the Auxiliary Boiler shall be reported to EFSEC within 45 days of test completion.

**X. NON-APPLICABLE REQUIREMENTS**

WAC 173-401-640(2)

This section lists all federal, state, and/or local requirements which might reasonably apply to the permittee, but are deemed nonapplicable after review by EFSEC. **In accordance with WAC 173-401-640, the permittee is provided a permit shield for not complying with the requirements described below where they have been identified to be non-applicable to specific emission units.**

**1. Registration Program**

WAC 463-78-100

The permittee is under the jurisdiction of Washington's Energy Facility Site Evaluation Council (EFSEC) and is therefore required to register with EFSEC pursuant to WAC 463-39-100 (SIP), however the latest version adopted by EFSEC in WAC 463-78-100 (effective 8/27/15) exempts air operating permit sources from the registration requirements.

**2. Requirements for Sources in Nonattainment Areas**

WAC 173-400-112

The permittee is not located in a nonattainment area for any criteria pollutant. Therefore, this regulation is not applicable.

**3. Bubble Rules**

WAC 173-400-120

The permittee has not requested an emission bubble for any regulated pollutant. Therefore, this regulation is not applicable.

**4. Issuance of Emission Reduction Credits**

WAC 173-400-131

The permittee has not sought emission reduction credits (ERCs). Therefore, this regulation is not applicable.

**5. Use of Emission Reduction Credits**

WAC 173-400-136

The permittee has not sought to use emission reduction credits (ERCs). Therefore, this regulation is not applicable.

**6. National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines**40 CFR Part 63.6080 et seq. Subpart YYYY

Subpart YYYY applies to combustion turbines built after January 14, 2003 and located at major sources of HAP emissions. The combustion turbines at this facility were built and installed prior to January 14, 2003, and this facility is not a major source of HAP emissions, therefore this regulation is not applicable to the combustion turbines at this facility.

**7. Compliance Assurance Monitoring**

40 CFR Part 64

Part 64 applies to certain pollutant-specific emissions units at major sources. In general, Part 64 applies to emission units that utilize a control device to achieve compliance with an emission limit for a pollutant that otherwise could be emitted at a rate exceeding the applicable major source threshold (e.g. 100 tpy criteria pollutants and VOCs, 10 tpy individual HAP). Each combustion turbine could emit more than 100 tpy of CO and NO<sub>x</sub> if emission controls were not installed, has emission limits for these pollutants, and utilize control equipment in order to achieve compliance with the applicable emission limits. ~~However, 40 CFR 64.2(b)(vi) exempts these emission limitations from additional requirements of Part 64 because the permittee is already required to utilize CEMS to measure concentrations and emission rates of these pollutants.~~

The NO<sub>x</sub> and CO CEMS meet the monitoring design criteria of 40 CFR 64.3(d). NO<sub>x</sub> emission limits for the turbines are expressed in ppmvd @ 15% O<sub>2</sub> (1-hour average), lb/day and tons per 12-month period. CO emission limits for the turbines are expressed in ppmvd @ 15% O<sub>2</sub> (1-hour average) and lb/hr. The required CEMS provide CO, NO<sub>x</sub>, and O<sub>2</sub> concentrations continuously (which is defined as at least one cycle of measurement every 15 minutes), which allows calculation of the hourly average NO<sub>x</sub> and CO concentrations for each hour. In addition, the permittee is required to continuously monitor fuel consumption in



accordance with 40 CFR 75 to allow the calculation of pollutant mass emission rates. In accordance with requirement M5, the permittee is required to collect NO<sub>x</sub> and CO emission data in the units of the emissions standards. In accordance with requirement K2, the permittee is required to keep records of NO<sub>x</sub> and CO emission data in units of the emission limitations. In accordance with requirement R3, the permittee is required to report NO<sub>x</sub> and CO emissions in units of the emission limitations.

Missing data substitution is not used for evaluating compliance with the short term NO<sub>x</sub> and CO limits and there are no long-term CO emission limits. In accordance with requirement M5, procedures from 40 CFR 75 apply to the NO<sub>x</sub> CEMS, and procedures from 40 CFR 60 apply to the CO CEMS. In accordance with 40 CFR 75, data substitution is used for determining compliance with the long-term NO<sub>x</sub> limit unless there is other credible evidence (see Permit Provision P1) indicating compliance.

- 8. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines** 40 CFR 60.4200 et seq. Subpart IIII  
&  
**National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines** 40 CFR 63.6580 et seq. Subpart ZZZZ

The Permittee operates a diesel-fired compressor engine at the facility. This engine is used for a variety of activities including:

1. Providing air pressure when **all sources of** outside power to the facility are turned off for maintenance to prevent the fire control system from activating.
2. Cleaning the HRSGs.
3. Running portable equipment (previously used to power a jackhammer).

The following engine details were gathered during a visit to the facility on March 23, 2010:

Engine Make / Model:	John Deere / 5030TF270B
Engine Capacity:	61.5 kW (82.5 hp)
Fuel:	Diesel
EPA Emission Certification:	At least Tier 2 (complies with model year 2007 standards)
Ordered:	July 19, 2007
Installed / Delivered:	December 27, 2007

The compressor engine is mobile (mounted on a trailer) and may move from location to location within the facility. If the engine moves from site to site within the facility, never staying at any one site for more than 12 consecutive months, it is a nonroad engine. This engine never stays in the same site for more than 12 consecutive months and is therefore classified as a nonroad engine. Nonroad engines are excluded from the definition of a stationary source and therefore not subject to stationary source standards such as Subpart IIII or Subpart ZZZZ and are not subject to the Air Operating Permit program.

**9. Federal Greenhouse Gas Reporting Requirements**

40 CFR Part 98

The EPA greenhouse gas reporting rule was finalized September 22, 2009. In the preamble EPA responds to a question regarding whether it is an applicable requirement for the purposes of Title V:

*As currently written, the definition of "applicable requirement" in 40 CFR 70.2 and 71.2 does not include a monitoring rule such as today's action, which is promulgated under CAA sections 114(a)(1) and 208.*

These requirements will be enforced directly by the USEPA outside of the Air Operating Permit Program.

**10. National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers - Area Sources**40 CFR 63.11193 et seq. Subpart JJJJJ

The Permittee operates the following three steam generating units (boilers): Unit #1 Heat Recovery Steam Generator, Unit #2 Heat Recovery Steam Generator, and the Auxiliary Boiler.

The Unit #1 Heat Recovery Steam Generator and the Unit #2 Heat Recovery Steam Generator do not meet the definition of "boiler" in Subpart JJJJJ and therefore are not subject to this regulation. The heat recovery steam generators are not fired; all heat utilized by the units originates in the combustion turbines. In accordance with 40 CFR 63.11237, the definition of "boiler" does not include "waste heat boilers". A "waste heat boiler" is defined as "...a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators." Subpart JJJJJ only applies to boilers as defined in the rule.

The Auxiliary boiler is fired solely on natural gas and therefore is not subject to this regulation. Natural gas fired boilers are not included in the description of the affected sources found in 40 CFR 63.11194. 40 CFR 63.11195(e) specifically lists "gas-fired boilers" as sources that are not subject to this regulation.



## APPENDIX A

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY SOURCE TEST  
METHOD 9A

## VISIBLE DETERMINATION OF OPACITY FOR A THREE MINUTE STANDARD

1. Principle

The opacity of emissions from stationary sources is determined visually by a qualified observer.

2. Procedure

The observer must be certified in accordance with the provisions of Section 3 of 40 CFR Part 60, Appendix A, Method 9, as in effect on July 1, 1990, which are hereby adopted by reference.

The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140° sector to his/her back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his/her observations from a position such that his/her line of vision is approximately perpendicular to the plume direction, and when observing opacity of emissions from rectangular outlets (e.g., roof monitors, open baghouses, noncircular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case, the observer should make his/her observations with his/her line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g., stub stacks on baghouses).

The observer shall record the name of the plant, emission location, type of facility, observer's name and affiliation, a sketch of the observer's position relative to the source, and the date on a field data sheet. The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on a field data sheet at the time opacity readings are initiated and completed.

The observer should make note of the ambient relative humidity, ambient temperature, the point in the plume that the observations were made, the estimated depth of the plume at the point of observation, and the color and condition of the plume. It is also helpful if pictures of the plume are taken.

Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume, but instead shall observe the plume momentarily at 15 second intervals.

When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible.

When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

Opacity observations shall be recorded to the nearest 5 percent at 15 second intervals on an observational record sheet. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15 second period.

### 3. Analysis

The opacity of the plume is determined by individual visual observations. Opacity shall be reported as the range of values observed during a specified time period, not to exceed 60 consecutive minutes. The opacity standard is exceeded if there are more than 12 observations, during any consecutive 60-minute period, for which an opacity greater than the standard is recorded.

### 4. References

Federal Register, Vol. 36, No. 247, page 24895, December 23, 1971.

"Criteria for Smoke and Opacity Training School 1970 - 1971" Oregon-Washington Air quality Committee."

"Guidelines for Evaluation of Visible Emissions" EPA 340/1-75-007



**Appendix B**  
**Source Emission Testing Requirements**  
**Auxiliary Boiler**

Page 1 of 2

**1. Introduction:**

- a. The purpose of this testing is to quantify emissions of nitrogen oxides and carbon monoxide emitted from the Auxiliary Boiler in order to assure compliance with the emission limitations contained in NOC Approval EFSEC/2009-01.

**2. Testing Requirements:**

- a. Source emissions testing of the Auxiliary Boiler shall be conducted initially and at least once every 60 calendar months (no later than the end of the calendar month during which the initial source test was conducted). Initial source emissions testing shall be conducted within 60 days after achieving the maximum operating rate but no later 180 days after initial operation. The use of an alternative test schedule or method must be pre-approved by EFSEC in writing.
- b. A comprehensive test plan shall be submitted to EFSEC for review and approval at least 10 business days prior to testing.
- c. EFSEC shall be notified of the test date at least 5 business days prior to testing.
- d. Unless otherwise specified, for each boiler, testing for each constituent shall consist of a minimum of three sampling runs of the duration specified below.

Constituent	Test Method or Equivalent <sup>1</sup>	Minimum Test Duration
Stack gas velocity, flow rate	EPA Methods 1 and 2	N/A
Stack gas dry molecular weight, O <sub>2</sub> , CO <sub>2</sub>	EPA Method 3A	N/A
Stack gas moisture content	EPA Method 4	60 minutes
Nitrogen oxides	EPA Method 7E	60 minutes
Carbon monoxide	EPA Method 10	60 minutes

<sup>1</sup> The use of an alternate or equivalent test method must be pre-approved by EFSEC in writing.

**Appendix B**  
**Source Emission Testing Requirements**  
**Auxiliary Boiler**

Page 2 of 2

**3. Source Operation:**

- a. A complete record of production related parameters applicable to the testing, including but not limited to the following shall be kept during emissions testing to correlate operations with emissions and shall be recorded in the final report of the test results:
  - 1. Unit startups and shutdowns
  - 2. Boiler firing rate (fuel flow rate or fuel consumption rate)
- b. Source operations during emissions testing must be representative of the most challenging of the intended operating conditions (e.g. full load).

**4. Reporting:**

The results of all required testing shall be submitted to EFSEC within 45 days of test completion. Each report shall be provided in an electronic format acceptable to EFSEC, and as a hard (paper) copy. Each report shall include:

- a. A description of the source including manufacturer, model number and design capacity of the equipment, and the location of the sample ports or test locations.
- b. Time and date of the test and identification and qualifications of the personnel involved.
- c. A summary of results, reported in units and averaging periods consistent with the applicable emission standard or limit. CO and NO<sub>x</sub> emissions shall be reported in units of ppmvd @ 3% O<sub>2</sub> and pounds per hour.
- d. A summary of control system or equipment operating conditions.
- e. A summary of production related parameters.
- f. A description of the test methods or procedures used including all field data, quality assurance/quality control procedures and documentation.
- g. A description of the analytical procedures used including all laboratory data, quality assurance/quality control procedures and documentation.
- h. Copies of field data and example calculations.
- i. Chain of custody information.
- j. Calibration documentation.
- k. Discussion of any abnormalities associated with the results.
- l. A statement signed by the senior management official of the testing firm certifying the validity of the source test report.



**Appendix C**  
**Performance Monitoring Requirements**  
**Auxiliary Boiler**

Page 1 of 2

**1. Introduction:**

- a. The purpose of periodically monitoring the exhaust of the Auxiliary Boiler is to minimize emissions and provide a reasonable assurance that the unit is operating properly.
- b. Periodic monitoring may be conducted with an electrochemical cell combustion analyzer, analyzers used for reference method testing, or other analyzers pre-approved by EFSEC.

**2. Monitoring Requirements:**

- a. Monitoring to determine emission concentrations of the following constituents shall be conducted for the boiler during each calendar year. The use of an alternative test schedule must be pre-approved by EFSEC in writing.

Constituents to be Measured

Carbon Monoxide (CO)

Nitrogen Oxides (NO<sub>x</sub>)Oxygen (O<sub>2</sub>)

- b. Source operation during monitoring must be representative of maximum intended operating conditions during that year.
- c. Alternative monitoring methodologies must be pre-approved by EFSEC.

**3. Minimum Quality Assurance/Quality Control Measures:**

- a. The analyzer(s) response to span gas of a known concentration shall be determined before and after testing. No more than 12 hours may elapse between span gas response checks. The results of the analyzer response check shall not be valid if the difference between the pre-test and post-test response checks exceeds 10% of the pre-test response value.
- b. The CO and NO<sub>x</sub> span gas concentrations shall be no less than 50% and no more than 200% of the emission concentration corresponding to the permitted emission limit. A lower concentration span gas may be used if it is more representative of measured concentrations. Ambient air may be used to zero the CO and NO<sub>x</sub> cells/analyzer(s) and span the oxygen cell/analyzer.

**Appendix C**  
**Performance Monitoring Requirements**  
**Auxiliary Boiler**

Page 2 of 2

**3. Minimum Quality Assurance/Quality Control Measures (continued):**

- c. Sampling of each exhaust stack shall consist of at least 1 test consisting of at least 5 minutes of data collection following a "ramp-up phase." The ramp-up phase ends when analyzer readings have stabilized (less than 5%/minute change in emission concentration). Emission concentrations shall be recorded at least once every 30 seconds during testing. All test data collected following the ramp-up phase(s) shall be reported to EFSEC. Alternative testing methods may be utilized provided pre-approval is obtained from EFSEC.

If the test results from any monitoring event indicate that emission concentrations may exceed 12 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 50 ppmvd CO @ 3% O<sub>2</sub>, the permittee shall either perform 60 minutes of additional monitoring to more accurately quantify CO and NO<sub>x</sub> emissions, or initiate corrective action. Additional testing or corrective action shall be initiated as soon as practical but no later than three days after the potential exceedance is identified. Corrective action includes tuning, maintenance by service personnel, limitation of boiler load, or other action taken to maintain compliance with permitted limits. Monitoring of unit emissions must be conducted within three days following completion of any corrective action to confirm that the corrective action has been effective. Corrective action shall be pursued until observed emission concentrations no longer exceed 12 ppmvd NO<sub>x</sub> or 50 ppmvd CO, corrected to 3% O<sub>2</sub>. Initiation of corrective action does not shield the permittee from enforcement actions by EFSEC.

**4. Reporting:**

- a. All monitoring results shall be recorded at the facility and reported to EFSEC. The following information shall be included in the report:
  - (1) Time and date of the emissions evaluation;
  - (2) Identification of the personnel involved;
  - (3) A summary of results, reported in units consistent with the applicable emission standard(s) or limit(s);
  - (4) A summary of equipment operating conditions;
  - (5) A description of the evaluation methods or procedures used including all field data, quality assurance/quality control procedures and documentation; and
  - (6) Analyzer response check documentation.
- b. Performance monitoring test results shall be corrected to 3% O<sub>2</sub>.
- c. Monitoring results shall be reported to EFSEC within 15 calendar days of test completion.



**Appendix D**  
**Acid Rain Permit No. EFSEC/06-01-AR Rev. 2**

**Issued by the Washington State Energy Facility Site Evaluation Council**

**Issued to:** Chehalis Generation Facility, Washington  
**Operated by:** PacifiCorp  
**Address:** 1813 Bishop Road  
Chehalis, Washington 98532  
**ORIS code:** 55662  
**Affected units:** CT1  
CT2  
**Effective:** This Acid Rain permit, as part of the Chehalis Generation Facility Title V permit, will become effective upon the effective date of the Title V permit (Date XXXX). The Acid Rain Permit shall have a permit term ending on October 10, 2016 (the expiration date of Title V Permit No. EFSEC/06-01-AOP Rev. 1

**Acid Rain Permit Contents**

- 1) Statement of Basis
- 2) SO<sub>2</sub> allowances allocated under this permit and NO<sub>x</sub> requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions as per WAC 173-406-501, "Acid Rain Permit Contents" as adopted by WAC 463-78.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application and in WAC 173-406-106 "Standard Requirements" as adopted by WAC 463-78.

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**1) Statement of Basis**

**Statutory and Regulatory Authorities:** In accordance with section 005 of Washington Administrative Code (WAC) 463-78 "General and Operating Permit Regulations for Air Pollution Sources," which adopts 173-406 "Acid Rain Regulation" and WAC 173-401 "Operating Permit Regulation," by reference, the Washington State Energy Facility Site Evaluation Council issues this permit pursuant to WAC 463-78. WAC 173-406 is based on the provisions of Title 40 Code of Federal Regulations (CFR) parts 72-76, which is part of the

requirements established pursuant to Title IV of the Clean Air Act, 40 U.S.C. 7401, et seq., as amended by Public Law 101-549 (November 15, 1990).

## 2) SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for Each Affected Unit

CT1	Facilitywide SO <sub>2</sub> allowances	To be determined <sup>a</sup>
	Acid Rain NO <sub>x</sub> limit	N/A <sup>b</sup>
CT2	Facilitywide SO <sub>2</sub> allowances	To be determined <sup>a</sup>
	Acid Rain NO <sub>x</sub> limit	N/A <sup>b</sup>

This Acid Rain Permit shall not be construed to exempt or exclude an affected unit from compliance with any other provisions of the Clean Air Act consistent with 40 CFR 72.9(h) and WAC 173-406-106(8) as adopted by WAC 463-78. Additional requirements for this facility include those contained in Prevention of Significant Deterioration permit EFSEC/95-02 Amendment 2.

### Table Footnotes

<sup>a</sup> Pursuant to 40 CFR 72.9(c)(i) and WAC 173-406-106(3)(a)(i) as adopted by WAC 463-78, this unit is required to hold SO<sub>2</sub> allowances, as of the allowance transfer deadline, in the unit's compliance subaccount not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit. Each combustion turbine has the potential to generate up to 85 tons per year of SO<sub>2</sub> emissions. According to 40 CFR 72.2, a fraction of a ton greater than 0.50 is equal to 1.0 ton and a fraction of a ton less than 0.50 is equal to no tons. Depending on the unit operating hours, each unit could be required to hold between 0 and 85 SO<sub>2</sub> allowances.

<sup>b</sup> Since this unit is not a coal-fired unit, there are no applicable acid rain NO<sub>x</sub> emission limits and a Phase II NO<sub>x</sub> permit application is not required. A NO<sub>x</sub> limitation is included in PSD permit EFSEC/95-02 Amendment 2.

## 3) Comments, Notes and Justifications

This Acid Rain Permit is deemed to incorporate the definition of terms under WAC 173-406-101 as adopted by WAC 463-78 unless otherwise expressly defined in this permit.

## 4) Permit Application

The permit renewal application was signed on **October 2, 2015**. A copy of the application is attached.

## Standard Requirements



**Permit Requirements**

- (1) The designated representative of the Chehalis Generation Facility and each affected unit at the Chehalis Generation Facility shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30 and WAC 173-406-301 as adopted by WAC 463-78; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit.
- (2) The owners or operators of the Chehalis Generation Facility and each affected unit at the Chehalis Generation Facility shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain permit.

**Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of the Chehalis Generation Facility and each affected unit at the Chehalis Generation Facility shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operator to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act, applicable requirements of Title 463 WAC, and other provisions of the operating permit for the Chehalis Generation Facility.

**Sulfur Dioxide Requirements**

- (1) The owners and operator of the Chehalis Generation Facility and each affected unit at the Chehalis Generation Facility shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the Chehalis Generation Facility; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under WAC 173-406-103(1)(b) as adopted by WAC 463-78; or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under WAC 173-406-103(1)(c) as adopted by WAC 463-78.

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7, 40 CFR 72.8, WAC 174-406-104 as adopted by WAC 463-78, or WAC 173-406-105 as adopted by WAC 463-78 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such an authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

#### **Nitrogen Oxides Requirements**

The owners and operators of the Chehalis Generation Facility and each affected unit at the Chehalis Generation Facility shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### **Excess Emissions Requirements**

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

#### **Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the Chehalis Generation Facility and each affected unit at the Chehalis Generation Facility shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certification of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;



- (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of the Chehalis Generation Facility and each affected unit at the Chehalis Generation Facility shall submit the reports and compliance certifications required under the Acid Rain Program, including those under WAC 173-406-800 as adopted by WAC 463-78 and 40 CFR part 75.

**Liability**

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7, 40 CFR 72.8, WAC 173-406-104 as adopted by WAC 463-78, or WAC 173-406-105 as adopted by WAC 463-78, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act and by the permitting authority pursuant to Revised Code of Washington (RCW) 80.50.150.
- (2) Any person who knowingly makes any false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001 and by the permitting authority pursuant to RCW 80.50.150.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) The Chehalis Generation Facility and each affected unit at the Chehalis Generation Facility shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to the Chehalis Generation Facility (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of the Chehalis Generation Facility and to the affected units at the Chehalis Generation Facility.
- (6) Any provision of the Acid Rain Program that applies to an affected unit at the Chehalis Generation Facility (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under WAC 173-406-402 (Phase II repowering extension plans) as adopted by WAC 463-78, and 40 CFR part 76, and except with regard to the requirements applicable to a unit with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 40 CFR 75.17, and 40 CFR 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other unit of which they are not the owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of WAC 173-406-100 through 173-406-950 as adopted by WAC 463-78 and 40 CFR 72, 73, 75, 76, 77, and 78, and regulations implementing section 410 of the Act by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

**Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7, 40 CFR 72.8, WAC 173-406-104 as adopted by WAC 463-78, or WAC 173-406-105 as adopted by WAC 463-78 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affect unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or
- (5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.





United States  
Environmental Protection Agency  
Acid Rain Program

OMB No. 2060-0258  
Approval expires 11/30/2012

# Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: ☐ New ☐ Revised ☒ for ARP permit renewal

## STEP 1

Identify the facility name, State, and plant (ORIS) code.

Chehalis Generating Facility	Washington	55662
Facility (Source) Name	State	Plant Code

## STEP 2

Enter the unit ID#  
for every affected  
unit at the affected  
source in column "a."

[illegible]

**Chehalis Generating Facility**

Facility (Source) Name (from STEP 1)

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**Permit Requirements****STEP 3**

Read the standard requirements.

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

(ii) Have an Acid Rain Permit.

**Monitoring Requirements**

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.

(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

**Sulfur Dioxide Requirements**

(1) The owners and operators of each source and each affected unit at the source shall:

(i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and

(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.

(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:

(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or

(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).



**Chehalis Generating Facility**

Facility (Source) Name (from STEP 1)

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**Sulfur Dioxide Requirements, Cont'd.****STEP 3, Cont'd.**

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

**Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

**Excess Emissions Requirements**

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and

(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

**Recordkeeping and Reporting Requirements**

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission

**Chehalis Generating Facility**

Facility (Source) Name (from STEP 1)

Page 4

of a new certificate of representation changing the designated representative;

**STEP 3, Cont'd.****Recordkeeping and Reporting Requirements, Cont'd.**

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

**Liability**

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

**Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with



**Chehalis Generating Facility**

Facility (Source) Name (from STEP 1)

Page 5

any other provision of the Act, including the provisions of title I of the Act relating

**STEP 3, Cont'd.****Effect on Other Authorities, Cont'd.**

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

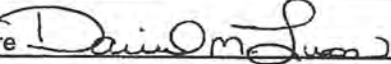
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**STEP 4**  
Read the  
certification  
statement,  
sign, and date.

**Certification**

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	David M. Lucas	
Signature		Date October 2, 2015

## Response to Comments Regarding Draft Air Operating Permit EFSEC/06-01-AOP Rev. 2 Chehalis Generation Facility

**Background.** The Energy Facility Site Evaluation Council issued draft Air Operating Permit EFSEC/06-01-AOP Rev. 2 for the Chehalis Generation Facility on August 25, 2016. The draft Air Operating Permit was issued in response to a Title V renewal application submitted by PacifiCorp in accordance with the deadline contained in Air Operating Permit EFSEC/06-01-AOP Rev. 1.

During the public comment period one comment letter was received from Mr. Geoffrey Glass of EPA Region 10 via electronic mail. Mr. Glass's message is reproduced below with EFSEC's comment responses interspersed within the message in *red italics*.

**From:** Glass, Geoffrey [<mailto:GLASS.GEOFFREY@EPA.GOV>]

**Sent:** Thursday, September 22, 2016 9:12 AM

**To:** EFSEC (UTC) <[EFSEC@utc.wa.gov](mailto:EFSEC@utc.wa.gov)>; LaSpina, Jim (UTC) <[jlaspina@utc.wa.gov](mailto:jlaspina@utc.wa.gov)>

**Cc:** Hardesty, Doug <[Hardesty.Doug@epa.gov](mailto:Hardesty.Doug@epa.gov)>; Dossett, Donald <[Dossett.Donald@epa.gov](mailto:Dossett.Donald@epa.gov)>

**Subject:** Comments on Chehalis Generation Facility AOP

Jim:

Thank you for emailing the draft version of the AOP for the Chehalis Generating Facility to Region 10 for review. This has advantages for you and for us because we can work more collaboratively on draft permits than we can on proposed permits. I would like to take this opportunity to make a few comments on the draft permit.

Feel free to contact me directly if you would like to discuss any of these (or other) issues informally before drafting your responses or if you would like to set up a call with me and Doug, who has recently been promoted to Air Permit Program Lead.

1. On page 29 of the AOP, the permit states that the emission limits for NO<sub>x</sub> and CO that apply to the turbines are exempt from CAM because "40 CFR 64.2(b)(iv) exempts these emission limitations from the requirements of Part 64 because the permittee is already required to utilize CEMS to measure concentrations and emission rates of these pollutants."

The correct citation should be 40 CFR 64.2(b)(vi), which states that CAM does not apply to "emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method, as defined in § 64.1." A continuous compliance determination method is defined as a method "which is used to determine compliance with an emission limitation or standard on a continuous basis, consistent with the averaging period established for the emission limitation or standard; and provides data either in units of the standard or correlated directly with the compliance limit."



Although the permit does require CEMS, the discussion of CAM applicability on page 29 does not explain how these systems meet the definition of a continuous compliance determination method.

Please demonstrate how the CEMS and DAS required by the permit can be used to demonstrate compliance with all the NO<sub>x</sub> and CO limits that apply to the turbines on a continuous basis, consistent with the averaging periods established by the limits and provide data either in the units of or correlated directly with the compliance limit. The demonstration must assure the validity of all data measured to determine compliance with each standard and shall explain how the DAS accounts for hours with missing data.

*Response: As you noted, the citation should be 40 CFR 64.2(b)(vi) rather than 40 CFR 64.2(b)(iv). However, in light of your comments/questions regarding how the CEMS meet the design criteria of 40 CFR 64, this reference will be replaced with the more detailed discussion below:*

*"The NO<sub>x</sub> and CO CEMS meet the monitoring design criteria of 40 CFR 64.3(d). NO<sub>x</sub> emission limits for the turbines are expressed in ppmvd @ 15% O<sub>2</sub> (1-hour average), lb/day and tons per 12-month period. CO emission limits for the turbines are expressed in ppmvd @ 15% O<sub>2</sub> (1-hour average) and lb/hr. The required CEMS provide CO, NO<sub>x</sub>, and O<sub>2</sub> concentrations continuously (which is defined as at least one cycle of measurement every 15 minutes), which allows calculation of the hourly average NO<sub>x</sub> and CO concentrations for each hour. In addition, the permittee is required to continuously monitor fuel consumption in accordance with 40 CFR 75 to allow the calculation of pollutant mass emission rates. In accordance with requirement M5, the permittee is required to collect NO<sub>x</sub> and CO emission data in the units of the emissions standards. In accordance with requirement K2, the permittee is required to keep records of NO<sub>x</sub> and CO emission data in units of the emission limitations. In accordance with requirement R3, the permittee is required to report NO<sub>x</sub> and CO emissions in units of the emission limitations.*

*Missing data substitution is not used for evaluating compliance with the short term NO<sub>x</sub> and CO limits and there are no long-term CO emission limits. In accordance with requirement M5, procedures from 40 CFR 75 apply to the NO<sub>x</sub> CEMS, and procedures from 40 CFR 60 apply to the CO CEMS. In accordance with 40 CFR 75, data substitution is used for determining compliance with the long-term NO<sub>x</sub> limit unless there is other credible evidence (see Permit Provision P1) indicating compliance."*

*In addition, your comment has revealed that the additional CEMS requirements of WAC 173-400-105(7) were not included in the Air Operating Permit. This rule became applicable to the CO and NH<sub>3</sub> CEMS at this facility when EFSEC adopted the rule effective August 27, 2015 and requires 95% data availability. The requirements from WAC 173-400-105(7) have been incorporated into the proposed Air Operating Permit in response to your comment.*



If such a demonstration is not possible, a CAM analysis is required, pursuant to part 64.

2. According to 40 CFR 70.6(b)(2) and WAC 173-401-625(2), the permitting authority may include permit terms that are not federally enforceable provided that they are specifically designated as not federally enforceable (or as "State only") conditions. This can assist the permittee by including all requirements, including state and local requirements in a single document. There are several conditions in the permit based on State regulations that are not in the SIP and, therefore, not federally enforceable. For example: Permit Condition G15, Reporting of Emissions of Greenhouse Gases, is not federally enforceable, but is not identified as such in the permit. In the next table, starting on page 4, some underlying requirements are labeled as being "State Only"; some are identified as "SIP Only"; and some are unlabeled. It appears that some of the labeling, or lack thereof, is incorrect. For example: Req-4, which requires good practices to reduce odors, is not a SIP requirement, but it is not labeled as "State Only."

*Response: You are correct, conditions Req-4 and M15 should be labeled "State Only". This oversight will be corrected. As described in P6 of the permit, only those requirements designated as "state only" or "local only" are not federally enforceable.*

The label "SIP Only" is unclear. A requirement that is in the SIP can be enforced by the State, the federal government, or any citizen. Furthermore, part 70 and Chapter 401 require the permitting authority to specifically designate those permit terms and conditions that are not federally enforceable, not the underlying requirements that are not federally enforceable, though this is allowed. Furthermore, any permit term or condition that streamlines or inextricably combines multiple underlying requirements is federally enforceable if at least one of the underlying requirements is federally enforceable.

*Response: "SIP Only" refers to a regulation that only resides in the SIP-approved version of a rules. Most often this occurs due to renumbering of a regulation. To assure that that the reader can cross-reference all legal authorities for the requirement, both the "SIP-Only" and "State Only" regulation citations were provided. As you noted, any requirement which has a "SIP Only" regulatory basis is federally enforceable.*

Please review the terms and conditions of the permit and ensure that federally enforceable and non-federally enforceable conditions are properly identified and labeled.

*Response: A review of the permit revealed additional underlying requirements in the "General Terms and Conditions" section that must be labeled "State Only". These underlying requirements were found in "General Terms and Conditions" G10, G11, G12, and G13.*



3. According to the Statement of Basis, subparts Dc and GG and the General Provisions of 40 CFR part 60 apply to the source. However, it is not clear that all the applicable requirements from part 60 have been incorporated into the permit. For example, there is no monitoring or testing condition associated with the NO<sub>x</sub> limit that applies to the combustion turbines that cites subpart GG as its basis; there are no recordkeeping or reporting conditions that cite part 60 as a basis for the requirement; and there are very few permit conditions that cite the General Provisions of part 60.

*Response: To the agency's knowledge, all applicable requirements from Subpart Dc and GG have been included in the permit. With respect to 40 CFR 60 Subpart GG NO<sub>x</sub> monitoring, the only NO<sub>x</sub> monitoring requirement in Subpart GG applicable to the turbines at this facility is an initial performance test that was completed in August 2003. Completion of this one-time performance testing is documented in Section V "Explanation of Obsolete and Future Requirements" of the Basis Statement.*

*The only initial requirements under Subpart Dc for the natural gas fired boiler are initial notifications completed in 2011. The notification dates have been added to Section "Explanation of Obsolete and Future Requirements" of the Basis Statement for future reference.*

*The only on-going requirement for natural gas fired boilers under Subpart Dc is monthly natural gas consumption logging found in 40 CFR 60.48c(d). This requirement is contained in Monitoring Requirement M7 of the Air Operating Permit.*

Please check to ensure that all applicable requirements from part 60 have been included in the permit and document their inclusion in the SoB. We recommend including tables in the SoB that cross-reference underlying applicable requirements in the CFR to conditions in the permit.

*Response: The agency agrees that creating a cross-referencing table or other tool for confirming that all applicable requirements are included in an Air Operating Permit can be useful. However, in this instance the regulations being reviewed were relatively straightforward and contain few requirements so no such review tool was created.*

4. We appreciate that the SoB includes a section on permitting history. However, we recommend enhancing the discussion of PSD applicability in the SoB to specifically detail those emission units and pollutants that have undergone PSD review. Although this may be clear now, it will benefit future generations of permit writers to have a clear understanding of the types of changes that will require PSD applicability review.

*Response: The following PSD discussion will be added to the section V(1) where the permitting history is discussed:*

*"Prevention of Significant Deterioration (PSD) review was conducted for initial installation of Combustion Turbines #1 and #2 resulting in issuance of EFSEC/95-02 on June 18, 1997. Nitrogen*

*oxides, carbon monoxide, sulfur dioxide, particulate matter with an aerodynamic diameter less than 10 micrometers, volatile organic compounds, and sulfuric acid mist underwent PSD review in this permitting action. No permitting action since that time has triggered PSD review."*

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Stationary Source Unit

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