### **ESTERSON Sarah \* ODOE**

**Subject:** FW: CEP - New Project

**Attachments:** CEP - ODOE - Cooling Tower Project - Signed.pdf

From: Daniel Koch [mailto:dkoch@pacificethanol.com]

**Sent:** Tuesday, May 30, 2017 8:07 PM

To: CORNETT Todd \* ODOE < Todd. Cornett@oregon.gov>

Subject: FW: CEP - New Project

Hello Todd,

Attached is a copy of a submittal I will be putting in the mail tomorrow,

We are expanding our existing cooling tower, which requires a building permit, which seems like a good trigger to also inform the DOE. I know in the past we have not done this so well, so please let me know any additional information you need from us so we can proceed with this project.

Thank you,

### **Daniel Koch**

### Plant Manager

Pacific Ethanol Columbia, LLC | 71335 Rail Loop Dr., PO Box 469, Boardman, OR 97818

Office: 541.945.4954 | Mobile: 209.542.0617 | dkoch@pacificethanol.com

From: ESTERSON Sarah \* ODOE [mailto:Sarah.Esterson@oregon.gov]

**Sent:** Friday, May 26, 2017 8:11 AM

To: Daniel Koch < dkoch@pacificethanol.com >; CORNETT Todd \* ODOE < Todd.Cornett@oregon.gov >

Subject: RE: CEP - New Project

Hi Dan.

The submittal package can be sent to Todd's attention – if the submittal package is in the form of a change request, there are not specific submittal requirements.

Let us know if additional information is needed.

Thanks, Sarah

### Sarah T. Esterson

Energy Facility Siting Analyst
Oregon Department of Energy
550 Capitol St NE, 1st Floor (we moved!)
Salem, OR 97301
P:(503) 373-7945
C: (503) 385-6128
Oregon.gov/energy



Leading Oregon to a safe, clean, and sustainable energy future.

**From:** Daniel Koch [mailto:dkoch@pacificethanol.com]

Sent: Thursday, May 25, 2017 3:48 PM

To: ESTERSON Sarah \* ODOE < Sarah. Esterson@oregon.gov >; CORNETT Todd \* ODOE < Todd. Cornett@oregon.gov >

**Subject:** CEP - New Project

Hello Sarah and Todd,

We are looking into a small unit expansion, we are going to expand our cooling tower capacity to minimize the amount of time we have to run a chiller in the hot months.

It will not increase truck traffic, or have any other major impacts, mostly help with operational efficiencies.

My question is that I am preparing a submittal package that will explain the project in more detail including some drawing packages, and the last project like this I show being sent to Todd, but I know I had worked mostly with Sarah regarding the amendment.

So I just wanted to verify whose attention I needed to send it to, and to see if you have any recommendations if anything was mishandled in the past that I am not aware of.

Thank you,

### **Daniel Koch**

### Plant Manager

Pacific Ethanol Columbia, LLC | 71335 Rail Loop Dr., PO Box 469, Boardman, OR 97818

Office: 541.945.4954 | Mobile: 209.542.0617 | dkoch@pacificethanol.com



Pacific Ethanol, Inc. Columbia Plant

May 30th, 2017

Mr. Todd Comett Oregon Department of Energy 625 Marion Street NE Salem, OR 97301-3737

RE: CEP – Cooling Tower Expansion Project

Mr. Cornett,

The Columbia Ethanol Project (CEP), also known as Pacific Ethanol Columbia, is submitting this notice to inform the Department of Energy of an upcoming project. As part of an efficiency improvement program, we are expanding our cooling tower system. The current cooling tower is a two-cell design, and the project will add a third cell which will improve cooling tower efficiencies.

The additional unit as part of the design, won't affect water flow rate, number of trucks leaving the site, or other major considerations. What the design will do, is allow the facility to achieve our current production targets more efficiently and with less stress on our existing temperature sensitive operations, especially during the summer months.

The specifics for the installation are attached. Since this is an attachment to an existing operational unit, any decommissioning cost increases are considered insignificant in the total scope of site cleanup. The proper building permits and Oregon DEQ submittals are being addressed concurrently with this submittal.

If there are any further questions, additional information needed, or items that the DOE would like addressed prior to commencing construction activities please let me know.

Sincerely,

Daniel Koch Plant Manager

Pacific Ethanol, Columbia

71335 RAIL LOOP DRIVE BOARDMAN, OREGON 97818 TEL. 541.481.2716 FAX. 541.481.2735 www.pacificethanol.com

# OREGON COOLING TOWER FOR: Pacific Ethanol BOARDMAN,

SCOPE OF WORK

PROVIDE FOUNDATION AND ANCHORAGE DETAILS FOR NEW COOLING TOWER

# SHEET INDEX

COVER SHEET & PROJECT DATA SITE PLAN
LIDICATION PLAN
FOUNDATION PLAN
SECTIONS & DETAILS
DETAILS ប 28322 5 88888

PROJECT USE/SCOPE NEW COCLING TOMER AND FOUNDATION

PROJECT DATA

SUBMITTAL NOTES

ABBREVIATIONS

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Pacific Ethernol Columbia, LLC 400 Capital Mail, Suite 2000 Secremente, CA \$5814

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SITE ADDRESS 71335 Rad Losp Dive Boardmen, Gregon 67818

CLIENT
Pacific Ethanol Columbia, LLC
400 Corporal Mail, Sure 2000
Sacramento, CA 90814
(916) 403-2123

PROJECT ENGINEER Skephad Engmeenng, Inc. 2244 Brokelsee Raad, Sules 100 Section, CA 95219 (209) 943-2021

CONTACT Anthony J Lopes Rhell Kulgors

# PROJECT CONTACTS

DCCUPANCY
U = UTILITY & MISCELLANEOUS

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# COMPLIANCE CODES

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2014 ORECON RECHARCAL SECLALITY COCE (045C)
2014 ORECON FREETENERAL SECLALITY COCE (065C)
2015 ORECON FREETENCE (045C)
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# BUILDING CODE NOTES

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1. NO HAZARDOUS MATERALS. LISTED IN 2014 085C ESCIDON 41 SECEETING THE QUANTITIES LISTED IN TABLES 307 1(1) AND 307 1(2) SHALL BE STONED ON USED WITHOU THE LIMITS OF THAS PROJECT.

# ALLOWABLE AREA CALCULATIONS

PURLDING DATA

3

WO NEW BUILDINGS ARE TO BE ADDED LINDER THIS PERINT EXISTING BLILDING AREAS WERE APPROVED UNDER PREVIOUS PERINTS

(2

12

Both to Chill an z

2244 Brockson Road Subs 1(3) Start for Californ a 90219 703-943-7021 6-at 200-942-0214 weeks ogfradenguzen

Pacific Ethanol, Inc.

Ęź 400 Capital Mail Sacramento, CA 85314

71335 Rail Loop Drive, Boardman, Or. COVER SHEET & PROJECT DATA



NOT FOR CONSTRUCTION

MARKET NO 16178
RABBIG NO CO

Pacific Ethanol, Inc. 400 Captal Mail Sacramento, CA 95914 COMMISSION OF CALL WE CASCELLAR OF THE COMMISSION OF CASCELLAR OF CASC C. Agricultur growth with the Charles of the Charle Do According the Last Section Only 1999 on June According to 1999 on J E COCAMO ET RINGENT NO COCAMO E PARA, COTT P CHOCKITI BEAUGH GARDIN EASA THE ALE ARMAITE I HE PROCESS 2 WHI BEAUGH SELL HER PROCESS 2 WHI BEAUGH SELL HER PROCESS AMENDER AND THE ALE THE PROCESS OF ALL DESIRES AND THE PROCESSORY OF A WARRING AND THE PROCESSORY OF DESIGNED DEFAULT DESIGNED A SIDERIA, ALL CONCRETE MONE BANLI DE REJECTANED IN ACCONDANCE WITH ACL INC. DANC COXERA Dec 15 One Much Chi Coccae, Christian, P. Will July Cocca, Un Danado FOR ACTION CONTRIBUTION OF THE AMERICAN PROPERTY AND CONTRIBUTE AND CONTRIBUTION OF THE ACTION OF TH VAPOR BARRIER ASTINE 1716 CLASS A B. AND E DAME AS WITH READDRIFF PERMANATOR STSEA VAPOR BARRIES ON RETAIN VAPOR BLOCK (18 BR. 1881). TATELLA ACCOUNTS ON ALL DIFFORD COACHETT COCKS DALESS

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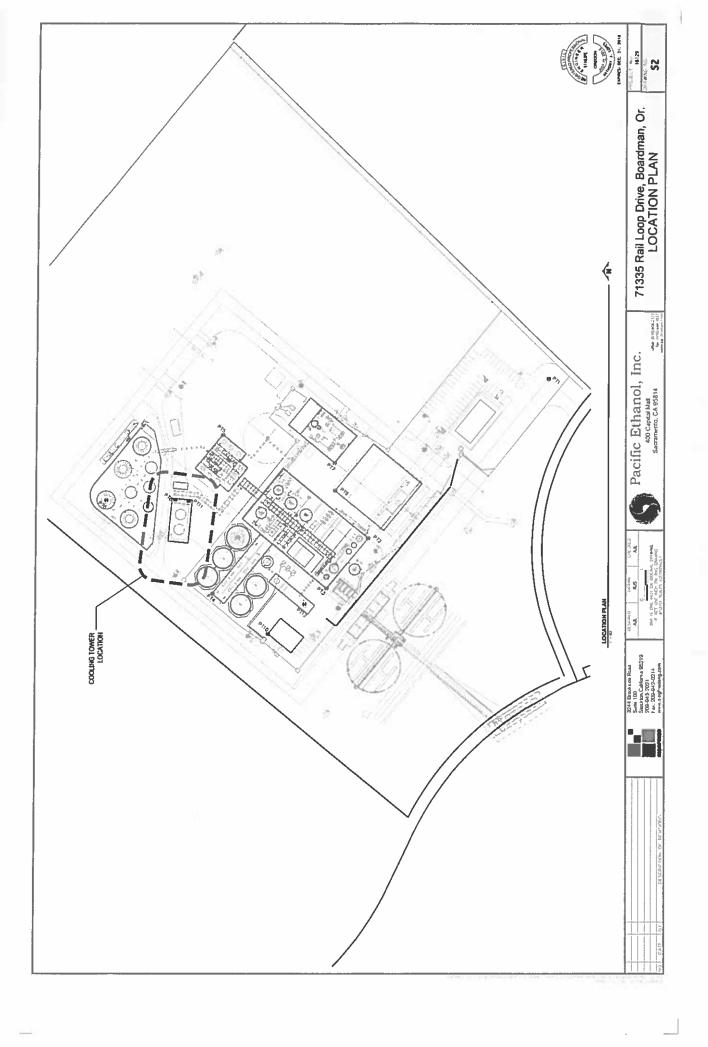
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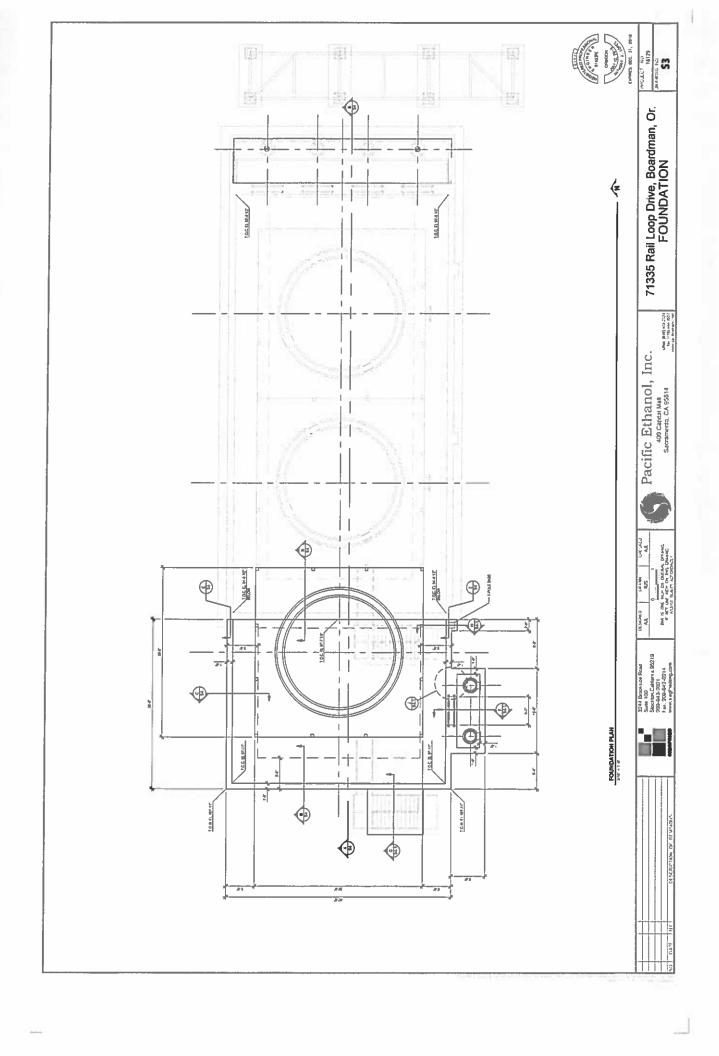


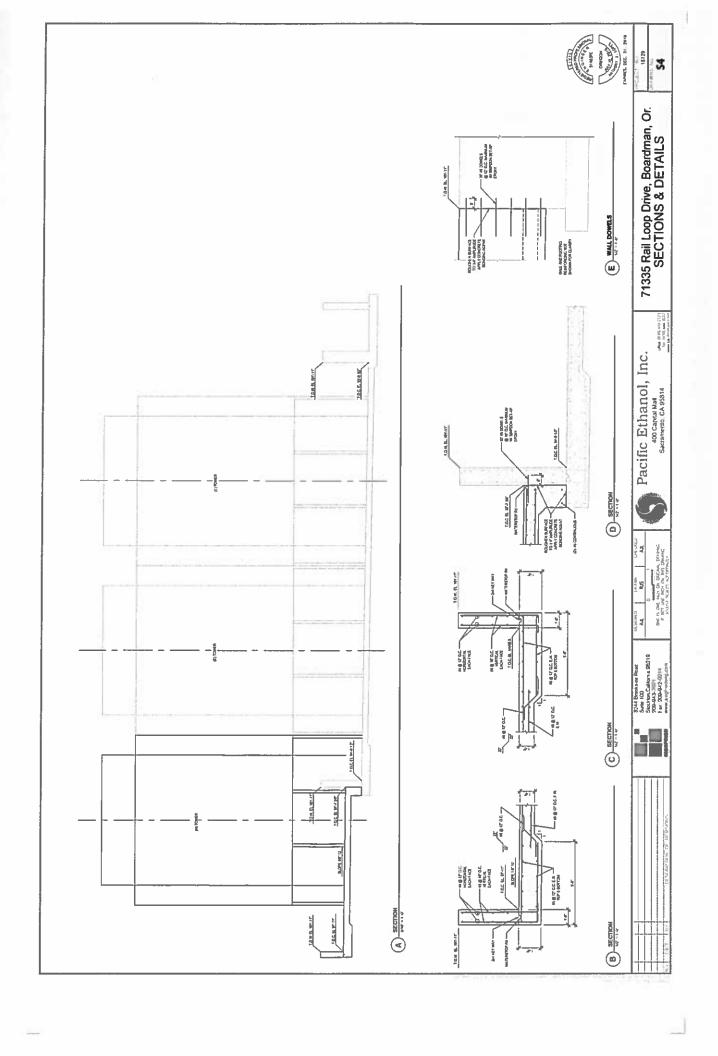
71335 Rail Loop Drive, Boardman, Or. SITE PLAN

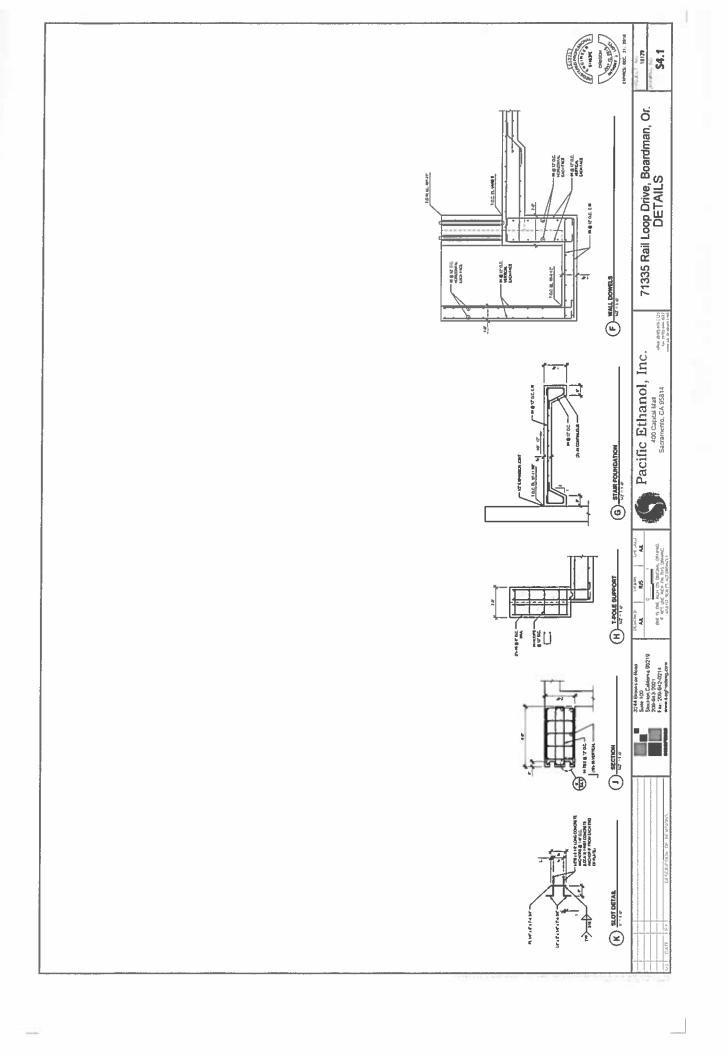
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## Pacific Ethanol, Inc. Columbia Plant

May 30, 2017

Oregon Department of Environmental Quality Eastern Region 475 NE Bellevue Drive, Suite 110 Bend, OR 977011

Re:

Notice of Intent to Construct – Type 1 Change, ACDP #25-0006-ST-01

Pacific Ethanol Columbia, LLC - Boardman, Oregon

### Dear AQ Permit Coordinator:

On behalf of Pacific Ethanol Columbia (PEC), please accept this request to add an additional cell to our existing cooling tower (FS06 in ACDP #25-0006-ST-01). Currently, the cooling tower operates with two cells. The proposed third cell will provide additional cooling surface area and increase the efficiency of the unit. The modification will not change the water flow rate, cooling water total dissolved solids concentration, or the drift loss rate. Therefore, the modification will not increase emissions. As detailed in the attached application, this modification meets the requirements for a Type 1 modification under OAR 340-210-0225(1).

### **Type 1 Modification Criteria**

The installation of a third cooling tower cell would be a Type 1 change because the project:

- 1. would not increase emissions above the Plant Site Emission Limit by more than the deminimis levels defined in OAR 340-200-0020 for sources required to have a permit;
- 2. would not increase emissions above the netting basis by more than or equal to the significant emissions rate (SER);
- would not increase emissions from any new, modified, or replaced device, activity or process, or any combination of devices, activities or processes at the source by more than the de minimis levels defined in OAR 340-200-0020;
- 4. would not be used to establish a federally enforceable limit on the potential to emit; and
- 5. would not require a TACT determination under OAR 340-226-0130 or a MACT determination under OAR 340-244-0200.

As noted above, there would be no increase in emissions from the cooling tower (FS06). As such, items 1, 2, 3, and 4 above would be met.



## Pacific Ethanol, Inc. Columbia Plant

The cooling tower system has, and will continue to have after this modification, the potential to emit particulate emissions at a rate of 0.439 pound per year/gallon per minute of circulating water flow rate (average). This equates to 3.14 tons per year.

Pursuant to 340-226-0130 (1)(c), a TACT determination is required for sources that have potential to emit greater than or equal to 5 tons per year of particulate emissions. The cooling towers are existing, permitted emission sources at PEC. In addition, the affected cooling tower has the potential to emit less than 5 tpy of particulate emissions. Therefore, a TACT determination is not required. Pursuant to 340-244-0200, a MACT determination could be required for modifications at a major source of hazardous air pollutants (HAP). PEC is not a major source of HAPs, so a MACT analysis is not required. Item 5, above, is satisfied.

Please find enclosed applicable ODEQ application forms, facility site plot plan, process flow diagram, and aerial map (all in Attachment A) and emission calculations (Attachment B).

If you have any questions or comments regarding the enclosed application, please feel free to contact me at (541) 945-4954.

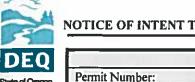
Sincerely,

Pacific Ethanol Columbia

Daniel Koch Plant Manager

Enclosures: Two copies of NOIC Type 1 Application

cc: Paul Mordorski, Merjent, Inc



### NOTICE OF INTENT TO CONSTRUCT

	FOR DEQ USE ONLY	
Permit Number:	Regional Office:	
Application No:	Date Received :	and Edition.

1. Source Number: 25-0006		
2. Company	3. Facility Location	
Legal Name: Pacific Ethanol Columbia, LLC	Name: Pacific Ethanol Columbia, LLC	
Ownership type: LLC	Plant start date: 2007	
Mailing Address: 400 Capitol Mall, Suite 2060	Street Address: 71335 Rail Loop Drive	
City, State, Zip Code: Sacramento, CA 95814-4436	City, County, Zip Code: Boardman, OR 97818	
4. Number of Employees (corporate): 485	Number of Employees (plant site): 36	

5. Facility Contact Person	6. Industrial Classification Code(s)
Name: Daniel Koch	SIC: 2869
Title: Plant Manager	NAICS:325193
Phone number: 541.945.4954	7. Type of construction/change: (see instructions)
Fax number: 541.481.2735	Type 1
e-mail address: dkoch@pacificethanol.com	Турет

8. Signature	
I certify that the information contained in this notice, inc are true and correct to the best of my knowledge and bel	cluding any schedules and exhibits attached to the notice, ief.
Daniel Koch	Plant Manager 541.945.4954
Name of official (Printed or Typed)	Title of official and phone number
Dungles	5/36/17
Signature of official	Date

**Construction Information** 

9.	Description of proposed construction:
	Construct and operate a third cell to the existing cooling tower. No additional pump capacity, short term flow rate, or annual throughput is requested.
10.	Will the construction increase the capacity of the facility? NO If yes, how much?
11.	Will the construction increase pollutant emissions? NO If yes, how much (see question 19)?
12.	Will the construction cause new pollutant emissions? NO If yes, which pollutants and how much?
13.	Estimated timing of construction.  a. Commence date: 5/30/17 b. Begin date: 6/15/17 c. Completion date: 8/1/17
14.	Will tax credits be requested once construction is completed? NO
15.	Attach relevant forms from Form Series AQ200, Device/Process Forms.
16.	Attach relevant forms from Form Series AQ300, Control Device Description Forms, if applicable.
17.	Attach process flow diagram.
18.	Attach a city map or drawing showing the facility location.
19.	If applicable, attach a Land Use Compatibility Statement.



### NOTICE OF INTENT TO CONSTRUCT

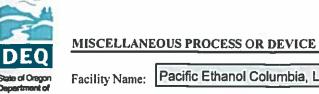
### **Emissions Data**

20. Pre-and Post-Construction emissions summary data

20. Pre-and Post-Construction emissions summary data					
		c. Pre-Construction	n Emissions	d. Post-Constructi	on Emissions
a. Emissions Point	b. Pollutant	short-term (specify unit)	Annual (tons/year)	short-term (specify unit)	Annual (tons/year)
FS06	PM/PM10/PM2.5	0.71 lb/hr	3.14	0.71 lb/hr	3.14
				1	
				1	

SUBMIT TWO COPIES OF THE COMPLETED NOTICE OF INTENT TO CONSTRUCT TO THE DEPARTMENT REGIONAL OFFICE SHOWN BELOW:

Oregon Department of Environmental Quality Eastern Region 475 NE Bellevue Drive, Suite 110 Bend, OR 97701

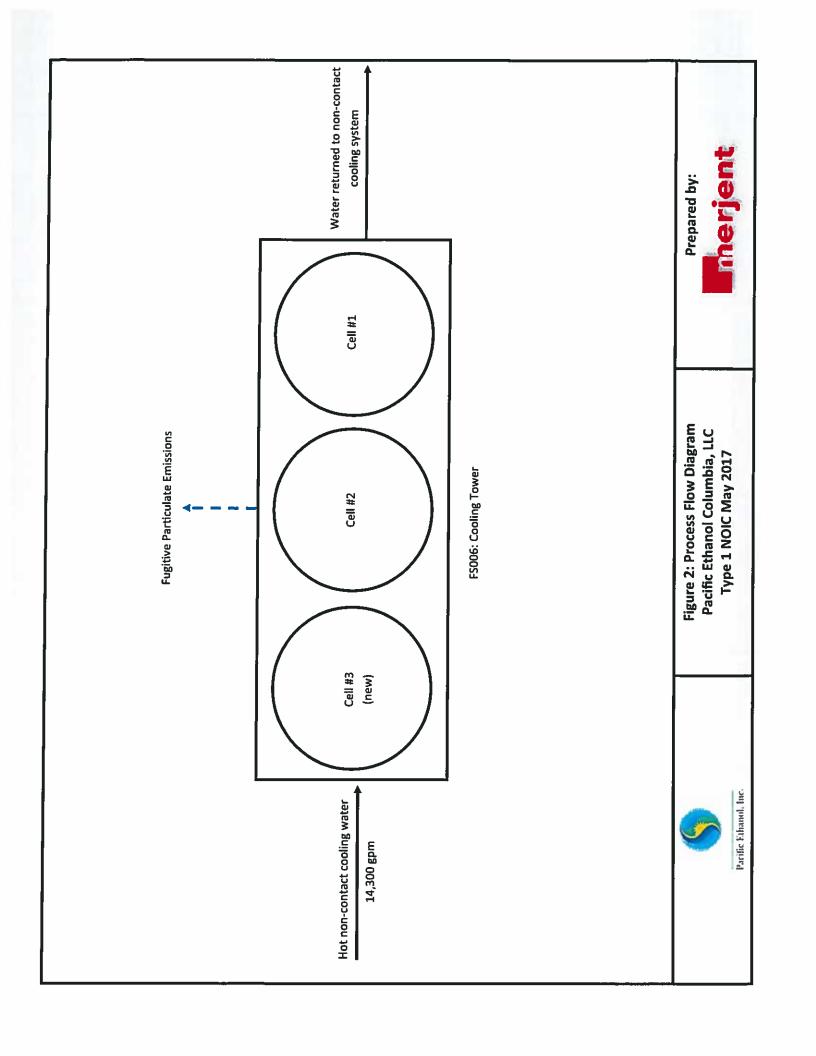


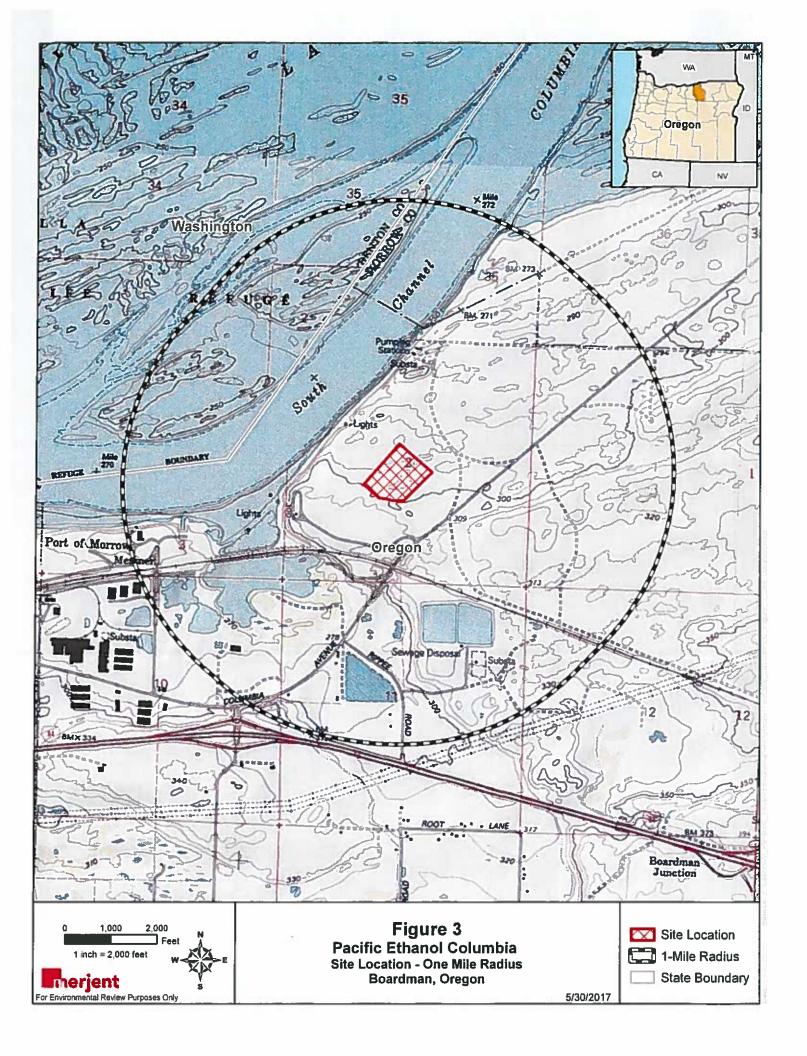
acility Name:	Pacific Ethanol Columbia, LLC	Permit Number: 25-006-ST-01

Process Information						
I. ID Number		FS06				
2. Descriptive name		Cooling Tower				
3. Existing or future? 4. Date commenced		Existing March 2007				
						5. Date installed/completed
6. Description of process:		•				
Hot, non-contact cooling water gallons per minute (gpm). resulting cooled water is d	Excess process	heat is released	through eva			
Operating Schedule 7. Seasonal or year-round?		Year-round				
<u> </u>				200		
Batch or continuous operation?		Continuous 24				
Projected maximum hours/day						
0. Projected maximum hours/year		8760	8760			
1. Process/device capacity:	Short te	erm capacity Annual usage				
Raw materials	Amount	Units	Amount	Units		
Cooling water	14,300	gallons/min	7,516.1	million gallons/year		
			HE COLLEGE			
Products				_1		
NA						
			11-18	A 19		
2. Control devices(s) (yes/no)				No		
If yes, provide the ID number ar	nd complete and attack	hed the applicable serie	s AQ300 form(s	).		

## Appendix A Figures







## Appendix B Emission Calculations

	struction	Potential to Emit	ТРУ	3.14	3.14	
	Post-Construction	Potentia	lb/hr	0.71	0.71	
	Existing Potential to	ıjt	ТРУ	3.14	3.14	
	Existing Po	Emit	lb/hr	0.71	0.71	
		<b>Emission Factor</b>	Citation	Manufacturer	Manufacturer	
PACIFIC ETHANOL COLUMBIA, LLC FS06 EMISSIONS			Drift Loss	0.005%	0.005%	
ETHANOL COLUM FS06 EMISSIONS	Circulating	Flow Rate	(Bbm)	14,300	14,300	
PACIFIC			Pollutant	PM	PM10	
			Description	Cooling Towers	Cooling Towers	
		Stack /	Vent No.	FS06	FS06	
		Control	Device	N A	NA N	
			Unit No.	FS06	FS06	

Assumptions:

TDS Concentration: 2000 ppm

Chang	Change in Potential Emissions	I Emissions
	lb/hr	TPY
PM	0.00	0.00
PM10	0.00	0.00



### Department of Environmental Quality

Eastern Region Bend Office 475 NE Bellevue Dr., Suite 110 Bend, OR 97701 541-388-6146 Fax: 541-388-8283

TTY: 711

June 2, 2017

Mr. Daniel Koch, Plant Manager Pacific Ethanol Columbia, LLC 71335 Rail Loop Dr. Boardman, OR 97818

Re:

Notice of Intent to Construct No. 29109 Standard Air Contaminant Discharge Permit

Permit No. 25-0006\* Morrow County

On June 1, 2017 the Department received your *Notice of Intent to Construct* to construct and operate a third cell to the existing cooling tower for your facility located at 71335 Rail Loop Dr., in Boardman, OR. Processing of this notice is assigned to Doug Welch in our Pendleton office.

You may proceed with construction/modification on or after June 11, 2017; unless the Department notifies you in writing before that date, that the proposed construction/modification is not a Type 1 change.

In addition to meeting the air quality standards, your facility is also obligated to operate in compliance with the daytime and nighttime noise standards set forth in Oregon Administrative Rule (OAR) 340-35-035(1). A copy of the noise regulations will be provided to you upon request.

If at any time, the Department determines that the proposed construction is not in accordance with applicable statutes, rules, regulations, and orders, the Department will issue an order prohibiting the construction or modification. The order prohibiting construction or modification will be forwarded to the owner or operator by certified mail.

Sincerely,

Nancy Swofford

Air Quality Permit Coordinator

Nancy Swofford

Eastern Region

cc: Doug Welch, DEQ:Pendleton Office/file

### FORM AQ104C ANSWER SHEET

### NOTICE OF APPROVED CONSTRUCTION COMPLETION

Return this form within 30 days of completion of approved construction.

NC Application Number:	29109	
Permit Number (if applicable):	25-0006-ST-01	
Company Name:	W 11	
Street Address:		
City, State, Zip Code:		2.5
Contact Person:		
Phone Number:		N.
Brief description of installed facility/equipment:		10.7
Date construction completed:		V)
Date placed in operation:	=	
Signature	<u>89</u>	
I certify that the information cont are true and correct to the best of	tained in this notice, including any schedules and ex f my knowledge and belief.	chibits attached to the notice,
		chibits attached to the notice,
are true and correct to the best of		chibits attached to the notice,
are true and correct to the best of Name of official:		chibits attached to the notice,
are true and correct to the best of Name of official: Title of official:		chibits attached to the notice,
are true and correct to the best of  Name of official:  Title of official:  Phone number of official:		chibits attached to the notice,

Submit the completed Notice of Approved Construction Completion Form to the Department regional office shown below for the area that the source is located:

Oregon Department of Environmental Quality				
Eastern Region, Air Quality	Northwest Region, Air Quality	Western Region, Air Quality		
475 NE Bellevue Dr., Suite 110	2020 SW 4 <sup>th</sup> Avenue, Suite 400	750 Front Street, NE, Suite 120		
Bend, OR 97701	Portland, OR 97201	Salem, OR 97301-1039		

Online 'fillable' form at: http://www.deg.state.or.us/ag/permit/acdp/docs/AQ104C.pdf

### **ESTERSON Sarah \* ODOE**

From: ESTERSON Sarah \* ODOE

**Sent:** Friday, October 6, 2017 12:55 PM

To: 'dkoch@pacificethanol.com'; 'jtaguines@pacificethanol.com'; 'vanthofd30@gmail.com'
CC: CORNETT Todd \* ODOE; WOODS Maxwell \* ODOE; RATCLIFFE Jesse D; KILSDONK

Duane \* ODOE

**Subject:** ODOE Change Request Determination - Cooling Tower Expansion Project

**Attachments:** CGSOPS Change Request 3 Determination Letter 2017-10-06.pdf

Daniel,

The Department has completed review of the information submitted for the cooling tower expansion project (project) and determined that the project would not cause a significant adverse impact to a resource protected by EFSC standards, and would not substantially impair PEC's ability to comply with site certificate conditions. Therefore, an amendment of the site certificate is not required.

As noted in the attached determination letter, OAR 345-027-0050(5) allows that at the request of an EFSC Council member, the Department's determination must be referred to the Council for concurrence, modification, or rejection. In compliance with this rule the Department will share the determination with EFSC, informing Council members of their rights under the rule.

Let us know if there are questions or comments.

Thanks, Sarah

### Sarah T. Esterson

Energy Facility Siting Analyst Oregon Department of Energy 550 Capitol St NE, 1st Floor Salem, OR 97301 P:(503) 373-7945 C: (503) 385-6128

Oregon.gov/energy



From: CORNETT Todd \* ODOE

Sent: Wednesday, May 31, 2017 7:31 AM

To: ESTERSON Sarah \* ODOE <Sarah.Esterson@oregon.gov>; WOODS Maxwell \* ODOE <Maxwell.Woods@oregon.gov>

Subject: FW: CEP - New Project

FYI

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Leading Oregon to a safe, clean, and sustainable energy future.

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Plant Manager

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Office: 541.945.4954 | Mobile: 209.542.0617 | dkoch@pacificethanol.com



OREGON DEPARTMENT OF ENERGY

October 6, 2017

550 Capitol St. NE Salem, OR 97301-3737 Phone: (503) 378-4040 Toll Free: 1-800-221-8035 FAX: (503) 373-7806 www.Oregon.gov/ENERGY

Mr. Daniel Koch Pacific Ethanol Columbia, LLC 71335 Rail Loop Drive PO Box 469 Boardman, OR 97818

Sent via email: <a href="mailto:dkoch@pacificethanol.com">dkoch@pacificethanol.com</a>; <a href="mailto:jtaguines@pacificethanol.com">jtaguines@pacificethanol.com</a>; <a href="mailto:vanthofd30@gmail.com">vanthofd30@gmail.com</a>;

RE: Request for Determination Pursuant to OAR 345-027-0050(5) for Proposed Cooling Tower Expansion Project at Columbia Ethanol Project

Dear Mr. Koch,

On May 30, 2017 the Oregon Department of Energy (ODOE or the Department) received a change request submitted pursuant to OAR 345-027-0050(5) from Pacific Ethanol Columbia, LLC (PEC or certificate holder) for the Columbia Ethanol Project (facility) requesting to expand and add one new cooling tower cell to the existing two-cell cooling tower system. The change request explains that the expansion of the existing system would provide additional cooling surface area allowing for increased evaporation and operational efficiency, while not changing the water flow rate of the system, nor result in an increase in cooling water total dissolved solids, drift loss rate, or increase in production capacity of the facility (limited to 44 million gallons of ethanol per year).

Under OAR 345-027-0050(5), a certificate holder may submit a change request in writing to the Department for a determination regarding whether a proposed change requires a site certificate amendment. The rule requires that the change request include a description of the proposed change, an explanation as to why the certificate holder has concluded that an amendment is not required, and the certificate holder's evaluation demonstrating that the proposed change would comply with the applicable Council standards and would not require an amendment as per OAR 345-027-0050(1).

In accordance with OAR 345-027-0050(5), the Department reviewed PEC's change request evaluation. As presented in Attachment 1, the Department determined that the evaluation: 1) includes all information required by OAR 345-027-0050(3), and 2) the requested cooling tower expansion would not require a site certificate amendment for the reasons provided presented in Attachment 1.

Additionally, OAR 345-027-0050(5) allows that at the request of an Energy Facility Siting Council (EFSC or Council) member, the Department's determination must be referred to the Council for concurrence, modification, or rejection. In compliance with this rule, the Department will provide its determination to EFSC, informing Council of their rights under the rule. Should a Council member request to review the determination, the determination would go before EFSC at an upcoming Council meeting.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Sarah Esterson, Senior Siting Analyst

Oregon Department of Energy

E: sarah.esterson@oregon.gov

P: (503) 373-7945

Attachment: ODOE's Change Request Evaluation and Determination

### cc (via e-mail distribution)

Oregon Energy Facility Siting Council Todd Cornett, Oregon Department of Energy Maxwell Woods, Oregon Department of Energy Duane Kilsdonk, Oregon Department of Energy Jesse Ratcliffe, Oregon Department of Justice Attachment 1: ODOE's Change Request Evaluation and Determination

### **Proposed Facility Modifications**

The existing two-cell cooling tower system includes two, 150-foot tall distillation towers located to the north of the main processing building, in between the fermentation tank farm and the ethanol storage tank farm (see attached site plan). The existing cooling tower system receives hot, non-contact cooling water at a rate of 14,300 gallons per minute (7,516.1 million gallons per year) and, through evaporation, releases excess process heat (steam plumes) into the atmosphere. The resulting cooled water is discharged under authorization of existing facility water permits (those permits are administered by DEQ and are outside of the site certificate process). The drift loss rate of the existing cooling tower system is 0.005%; and permitted total dissolved solids concentration is 2,000 parts per million.

The proposed cooling tower expansion project would involve the construction and operation of an additional cooling tower cell, including one new 150-foot tall distillation tower located adjacent to and connected with the existing system. The certificate holder asserts that the system water flow rate, drift loss rate, and total dissolved solid concentration levels would not be impacted, nor change, as a result of the construction and operation of the additional cooling tower cell.

### **Site Certificate Amendment Applicability**

OAR 345-027-0050(1) contains the criteria used by ODOE and EFSC to determine when a proposed modification requires a site certificate amendment. The rule states:

OAR 345-027-0050(1): ...[T]he certificate holder must submit a request to amend the site certificate to design, construct or operate a facility in a manner different from the description in the site certificate if the proposed change:

- (a) Could result in a significant adverse impact that the Council has not addressed in an earlier order and the impact affects a resource protected by Council standards;
- (b) Could impair the certificate holder's ability to comply with a site certificate condition; or
- (c) Could require a new condition or a change to a condition in the site certificate

A change request assessment affirming any of the above criteria would result in a determination that a site certificate amendment is required. If the change request assessment affirms that none of the above criteria would be met, the proposed change can be completed without an amendment of the site certificate.

### Evaluation Under OAR 345-027-0050(1)(a)

A site certificate amendment is required pursuant to OAR 345-027-0050(1) if the proposed change could result in a significant adverse impact that the Council has not addressed in an earlier order and the impact affects a resource protected by Council standards. In order to demonstrate compliance with Council's Standards (Division 22 and Division 24), the certificate holder prepared and provided a compliance evaluation of all standards relevant to the proposed facility modifications (referred to as "change request"). OAR 345-027-0050(3) directs the certificate holder to make the evaluation available to the Department for inspection at any time. The Department's evaluation of the change request, and applicable State and local requirements, is presented below.

### Soil Protection [OAR 345-022-0022]

The Department evaluated the proposed cooling tower expansion project to determine whether the potential impacts to soils would impact the certificate holder's ability to comply with the Council's the Soil Protection standard.

### **Potential Soil Impacts**

Deposition of salts or other dissolved solids present in cooling tower drift (i.e. water droplets) could cause impacts to nearby soils. In the 2007 Final Order on the ASC, based on the cooling tower impact assessment provided for the Coyote Springs Facility, the Council determined that because PEC's cooling tower system was significantly smaller than that of a nearby energy facility (Coyote Springs facility), and located at distances exceeding 1,000-feet from the nearest agricultural area or water body, that cooling tower operation would not be likely to result in significant impacts to soils, vegetation or other land uses.

For the cooling tower expansion project, the certificate holder asserts that the additional cooling tower cell would allow for more efficient evaporation of cooling water used for temperature control of processes without changing the overall flow rate of the system (14,300 gallons per minute), cooling water total dissolved solids concentration, or drift loss rate of 0.005%. Based on the certificate holder's representation, the Department considers the impacts from the proposed cooling tower expansion project to be similar to the impacts evaluated in the ASC and that the proposed expansion project would not be likely to result in significant impacts to soils, vegetation or other land uses.

## General Standard of Review [OAR 345-022-0000], Protected Areas [OAR 345-022-0040], Scenic Resources [OAR 345-022-0080] and Recreation [OAR 345-022-0100]

The Protected Areas standard, Scenic Resources standard, and Recreation standard require a similar assessment of potential visual impacts of the facility at designated protected areas, scenic resources and important recreational opportunities within the analysis area(s). Because the proposed new unit of the cooling tower system could result in visual impacts, the Department assessed whether the proposed facility modification would be likely to result in significant adverse impacts to any protected area as defined by OAR 345-022-0040, significant scenic resource, or important recreational opportunity previously identified by Council.

While the Protected Areas and Recreation standards also require an assessment for impacts including but not limited traffic, noise, water use, and wastewater disposal, the scope of the change resulting from the proposed cooling tower expansion would not be likely to result in these type of impacts. 

Therefore, the Department's assessment is specific to potential changes in visual impacts from cooling tower plume and air emissions, and the 150-foot distillation tower associated with the additional cooling tower cell.

<sup>&</sup>lt;sup>1</sup> As represented in the change request, the proposed cooling tower expansion project would not be expected to result in operational traffic impacts, or changes in water use or wastewater disposal, or changes in operational noise from the Council's 2007 evaluation in the Final Order on the ASC.

While not explicitly referenced in the standard, the Department evaluates the informational requirements of OAR 345-021-0010(1)(z) under the Council's General Standard of Review. Specifically, the Department presents its evaluation of potential impacts from the proposed additional cooling tower cell on fogging and ice formation on public roads.

### Potential Structure, Plume and Air Emission Visibility Impacts

Potential visual impacts could result during operation of the proposed expanded cooling tower system from the additional 150-foot distillation tower, steam plume and air emissions. In the 2007 Final Order on the ASC, the Council made findings that potential visual impacts of the distillation towers, cooling tower plumes and air emissions would not be likely to result in significant, adverse impacts to any protected area, important recreational opportunity, or important scenic resource within the analysis area based on the distance to the nearest protected area (15 to 20 miles), existing visibility of industrial facilities on the landscape, and lack of any management plan addressing visual quality at any scenic resource.

Based on the reasoning of the Council's previous findings and because the additional cooling tower cell would not increase the potential to emit emissions as previously permitted by ODEQ; and, would not change the overall flow rate of the system (14,300 gallons per minute), cooling water total dissolved solids concentration, or drift loss rate of 0.005%, the Department considers that any potential changes in visibility impacts from the Council's previous evaluation at any protected area, important recreational opportunity, or significant scenic resource within the analysis area would not be likely to be significant.<sup>2</sup>

### Potential Fogging and Ice Formation on Public Road Impacts

The proposed expansion of the cooling tower system could result in fogging or icing along adjacent or nearby public roads during inclement weather conditions. In the 2007 Final Order on the ASC, the Council found that based on the certificate holder's assessment, because drift would settle within 700 feet of the cooling tower, and the nearest public roads were located at distances greater than 1,000 feet, that cooling tower operation would not be likely to result in significant risk to public safety from fogging or ice formation on public roads. Because the certificate holder states that the proposed cooling tower expansion project would not change the overall flow rate of the system (14,300 gallons per minute) or drift loss rate of 0.005%, the Department considers that the potential change in ice formation on public roads from the Council's previous evaluation would not be likely to be significant and would not likely change from what Council previously evaluated and approved.

### Retirement and Financial Assurance [OAR 345-022-0050]

The cooling tower expansion project could impact the ability of the certificate holder to restore the site to a useful, non-hazardous condition or obtain a bond or letter of credit in an amount necessary to restore the site to a useful, non-hazardous condition at the end of the facility's useful life.

<sup>&</sup>lt;sup>2</sup> See certificate holder's air contaminant discharge permit modification submitted to the Oregon Department of Environmental Quality (ODEQ), dated May 30, 2017. CEP Cooling Tower Expansion Project Change Request 2017-05-30.

The certificate holder argues that because the proposed additional cooling tower cell would be attached to an existing operational unit/system, which was accounted for in the decommissioning cost estimate, that any increase in cost would be insignificant. The Department notes that the certificate holder received approval on September 22, 2017 from the Council to interpret the requirements of the Retirement and Financial Assurance standard (specifically, interpretation of "useful, non-hazardous condition" within a Port Industrial land use zone) as allowing for the above-ground infrastructure to remain in place, once all hazardous and non-hazardous materials are removed and equipment is properly cleaned and locked out for transfer to the Port of Morrow, under legally binding agreement executed and attached (Attachment C) to the 2017 Final Order on Request for Amendment 1.

During its September 22, 2017 approval, the Council also determined that a satisfactory amount necessary to restore the site to a useful, non-hazardous condition, consistent with the above-described interpretation, was based on the amount necessary to remove and properly dispose of all hazardous and non-hazardous materials, clean and lock-out all equipment, which totaled approximately \$295,000. The Department also notes that the approved amount necessary for site decommissioning included over 30% contingency for future development and unforeseen conditions. The Council also imposed a new condition requiring the certificate holder to submit a bond or letter of credit in the full amount necessary to remove all above-ground infrastructure (\$895,000) if any term or condition of the site certificate is violated or if the legally binding agreement between the certificate holder and Port of Morrow is terminated or modified without prior Council approval.<sup>3</sup>

Based on the Council's recent interpretation of the standard for this facility, the 30% contingency included in the retirement bond amount, and the certificate holder's assertion that any costs associated with decommissioning of the proposed third cooling tower cell would be covered by the 30% contingency, the Department considers that the proposed cooling tower expansion project would not impact the certificate holder's ability to comply with the standard and existing conditions, nor require new or amended conditions.

### Evaluation Under OAR 345-027-0050(1)(b)

The second factor under OAR 345-027-0050(1) would require a site certificate amendment if the proposed change "could impair the certificate holder's ability to comply with a site certificate condition." Based on the evaluation provided under OAR 345-027-0050(1)(a), the proposed cooling tower expansion project would not be likely to impact the certificate holder's ability to comply with a site certificate condition.

### Evaluation Under OAR 345-027-0050(1)(c)

The final factor under OAR 345-027-0050(1) would require a site certificate amendment if the proposed change "could require a new condition or a change to a condition in the site certificate." Based on the evaluation provided under OAR 345-027-0050(1)(a), the proposed cooling tower expansion project would not be likely to result in any new adverse impacts not previously evaluated by EFSC. Therefore, the Department does not consider new site certificate conditions necessary to satisfy an applicable rule, EFSC standard, or statute.

<sup>&</sup>lt;sup>3</sup> Council approval of a modification or termination of the agreement would require an amendment of the site certificate.

### Determination

The Department agrees with PEC's evaluation under OAR 345-027-0050 and finds that the proposed cooling tower expansion project would not cause a significant adverse impact to a resource protected by EFSC standards, and does not substantially impair PEC's ability to comply with site certificate conditions. Compliance with applicable EFSC Standards, state and local laws, rules, and ordinances are not expected to be affected by the requested change. In accordance with the requirements of OAR 345-027-0050(4), the certificate holder shall include a description of the modifications and the Department's determination in the next annual report. ODOE will also document the change in an order associated with the next site certificate amendment. Finally, as noted in the cover letter, OAR 345-027-0050(5) allows that at the request of an Energy Facility Siting Council (EFSC or Council) member, the Department's determination must be referred to the Council for concurrence, modification, or rejection. The Department will provide its determination to EFSC, informing Council of their rights under the rule. Should a Council member request to review the determination, the determination would go before EFSC at an upcoming Council meeting.

**Attachment: Site Plan with Proposed Facility Modification** 

