

**REQUEST FOR AMENDMENT NO. 1
TO THE COLUMBIA ETHANOL
SITE CERTIFICATE**

Project Description and OAR Division 27 Compliance

Columbia Ethanol Project

April 2016

Pacific Ethanol

I. INTRODUCTION

Pursuant to Oregon Administrative Rule (OAR) 345-027-0050, Pacific Ethanol Columbia, LLC (PEC)¹ proposes to amend the Columbia Ethanol Site Certificate (Site Certificate) for its ethanol production facility in Morrow County, Oregon (the Facility). In this Request for Amendment No. 1 (Request), PEC seeks to modify the Site Certificate to account for minor infrastructure improvements to the Facility. There is no proposed change to the EFSC-certificated facility boundary or to any related and supporting facilities.

A. Location and Description of Existing Energy Facility (Division 21 Exhibit B)

The Facility is an ethanol facility that converts corn to ethanol. The Facility is authorized to produce up to 35 million gallons per year of ethanol under its Site Certificate. The Facility is located on approximately 25 acres that is zoned Port Industrial (PI) in the Boardman Industrial Park owned by the Port of Morrow in Morrow County, Oregon. The Facility site is depicted in Exhibit A (Figure C-1 from the Site Certificate Application). As noted, no change has occurred to the description of the location and Facility boundary.

As described in the Site Certificate, “the Facility produces ethanol by mixing ground corn with water and enzymes to make a mash. The mash is then cooked in a series of retention tanks to break the complex sugars down into simple (fermentable) sugars. Yeast and additional enzymes are added to produce a liquid, containing 10 to 15 percent ethanol by weight, and a solids by-product called distiller’s wet grain (DWGS). Liquid (10-15 percent ethanol) is piped to the Distillation, Drying and Evaporation (DD&E) Building, where it is separated from carbon dioxide and water vapor to produce a liquid that is 100 percent ethanol. Ethanol is then stored in ethanol storage tanks prior to shipment. DWGS is transferred and stored in the Wet Cake Building, and transported offsite for local dairy and cattle feed.”

The main infrastructure of the Property subject to the Site Certificate is the following (depicted in Exhibit B – Revised Figure C-3 from the Site Certificate Application):

Processing Building: Within the Processing Building, ground corn is mixed with water and enzymes to make a mash, and then cooked in a series of retention tanks to break the

¹ Nothing has changed with respect to ownership of the Facility since the original application. See Division 21, Exhibit A and D. PEC is still wholly owned by Pacific Ethanol Inc. and Neil Koehler is still the President of Pacific Ethanol Inc. The Articles of Organization for PEC remain unchanged from those submitted with the original application. Similarly, nothing has changed with respect to Division 21, Exhibit C with respect to Site Location and PEC confirmed with the Port of Morrow that the only change in neighboring property owners within 250 feet of the Site Boundary is that the former Cargill site is now owned by the East Oregon Grain Growers (which is owned jointly by the Port of Morrow and Morrow County Grain Growers. The other three property owners have not changed, namely the Port of Morrow, Morrow County, and Oregon Hay (as listed in Exhibit F of the original application).

complex sugars down into simple (fermentable) sugars. The Processing Building includes a control room and laboratory. It also contains storage for some hazardous materials, including a 25,000 gallon tank for aqueous ammonia, two 9,200 gallon tanks for enzymes, one 10,000 gallon tank for sulfuric acid, one 10,000 gallon tank for sodium hydroxide, and one 12,000 gallon tank for urea. The ammonia and urea tanks are constructed of carbon steel, while the enzymes and sulfuric acid tanks are stainless steel.

Boiler Building: The Boiler Building contains two natural gas fired steam boilers, each with a rating of 76,500 MMbtu/hour. It also includes water treatment and condensate recovery equipment that is run by a facility control system. The boilers are equipped with low NOx burners.

Fermentation Building: The Fermentation Building is where the mash is mixed with yeast and additional enzymes to produce a liquid containing 10 to 15% ethanol by weight.

DD&E Building: The DD&E Building is where the ethanol from the Fermentation Building is separated from the carbon dioxide and water vapor to produce a liquid that is 100% ethanol. The ethanol is pumped to the ethanol day tank until tests are completed, then transferred and blended with up to 5% gasoline as a denaturant and stored to the ethanol storage tank prior to shipment.

Wet Cake Building: The distiller's wet grain is stored in the Wet Cake Building. From there it is trucked to local dairies and cattle operations for use as feed.

Maintenance Building: Equipment and chemicals used at the Facility are stored in the Maintenance Building.

Administration Building: The Administration Building houses offices for 6 employees and has an adjacent parking lot for all employees and trucks.

Storage Containers: The following storage containers are located at the Project:

Grain Storage Bins: 2 steel bins with a combined capacity of 986,000 bushels

Ethanol Storage Tanks: 4 steel tanks with a capacity of 348,000 gallons each

Ethanol Day Tank: 12 steel tanks with a capacity of 118,000 gallons each

Ethanol Off Spec Tank: 1 steel tank with capacity of 118,000 gallons

Diesel Fuel Tank: 1 steel tank with capacity of 500 gallons

Denaturant Tank: 1 steel tank with capacity of 78,000 gallon.

B. Location and Description of Added Infrastructure

i. Corn Oil Extraction Process

Under the Site Certificate description of proposed activities, and the initial years of actual operation under the Site Certificate, PEC did not extract any corn oil from the processed corn residue remaining after the production of ethanol. Instead, the corn oil was left in the distiller's grain and sold to nearby farms and dairies as feed for animals.

In 2015, PEC determined that it could capture more value from the distiller's grain if it first extracted up to 50% of the corn oil from the distillers grain and sold the corn oil as a separate feed product. Accordingly, PEC installed a centrifugal separation unit to remove up to 50% of the oil from the distiller's grain. The process can produce up to 2.4 Mmg of oil, for sale and distribution. In comparison to the overall facility and as described further below, all of the changes – except for electricity use - amounted to less than a 5% increase to the facility infrastructure and operations (e.g. in energy used, concrete used, vehicle transport etc.). No underground piping or other underground construction was required.

The corn oil extraction involves the following process: Whole stillage processed by the existing decanter centrifuges is flowed thru a trim heater to heat the whole stillage in order to begin separation of oil from the stillage. It flows into two reactor tanks for increased residence time during which additional separation occurs. The stillage then is processed through the new centrifuges for extraction of the oil. The pure corn oil is sent to two storage tanks to age for a day before shipping while the solids are processed in the pre-existing evaporators and returned to the existing system. The centrifuges are cleaned every week using the same chemical used for cleaning the rest of the facility.

The following structural changes were made to allow for the corn oil extraction (See Exhibit B for depiction of the corn oil extraction system and components shown in pink):

1. A new centrifugal separation unit (CSU) was installed. The CSU is comprised of the following:
 - a. The main centrifuge, made of stainless steel and weighing approximately 9,000 pounds. It was installed on a new concrete pad in the Main Process Building.
 - b. Two stainless steel smaller supplemental centrifuges situated next to the main centrifuge on their own concrete pads.

- c. A jib crane used to install and maintain the centrifuge is next to the centrifuge on its own small concrete pad.
 - d. An evaporation feed tank, stainless steel, 40,000 gallons, takes the stillage from the centrifuges before the stillage goes back into the existing system (into the existing slurry tank and the evaporators from the original design).
 - e. A trim heater heats up the stillage/liquid to loosen the oils before entering the centrifuges
 - f. Two reactor tanks, stainless steel, 10,000 gallon vertical tanks, hold the stillage/liquid for continued separation before entering the centrifuges.
 - g. A caustic tank, carbon steel, 10,000 gallons, was added next to the centrifuges. It stores diluted caustic solution for cleaning the centrifuges. This tank was part of the original Facility and has been repurposed for this use.
 - h. 3000 feet of above ground pipe was added to carry stillage and liquid to the centrifuges and back into the process and to the corn oil storage tanks.
 - i. Two corn oil storage tanks were installed in the southwest corner of the existing truck loading containment area on new concrete foundations. They store the extracted oil prior to shipment. There are two stainless steel, 20,000 gallon, tanks along with a loadout/recirculation pump.
2. The corn oil extraction requires approximately a 4% increase in natural gas use and 14% increase in electricity use. The heater uses an additional 2000 to 3000 lb/hr of steam created from natural gas (as compared to 75,000 lb/hr of steam). The system uses an additional 525Kw/700 HP (compared to 3,750 Kw total Facility load). No upgrades or modifications were required to the electrical or natural gas systems.
 3. The corn oil extraction process requires less than 1% increase in water use and wastewater discharge. The water is used in the cleaning process and for blowdown of the boiler when making steam in the same fashion as water use for the rest of the facility
 4. New concrete foundation pads were poured for the three centrifuges, jib crane, evaporative feed tank, trim heater, two reactor tanks, two corn oil storage tanks, and the caustic tank. The total area prepared was 175 cubic yards and 216 cubic yards of concrete was poured. That is less than 5% of the concrete used on the rest of the facility.
 5. The only additional material associated with the extraction process is the use of caustic chemical for cleaning the centrifuges. The same chemical agent is used for cleaning the rest of the facility and the amount needed to clean the new centrifuges is insignificant in comparison to cleaning the overall facility.
 6. Necessary building permits were obtained from the City of Boardman for the installation of the infrastructure and DEQ provided an "authority to construct" and finding that the additional corn extraction would continue to comply with the existing PEC air permit for the Facility. No change was required to the WPCF permit for the Port of Morrow. Copies of the building permits and DEQ authority are attached as Exhibit C.

7. There has been no net change to the number of trucks entering or leaving the Facility as the number of trucks of corn oil shipped out of the Facility reduce the number of feed trucks in equal proportion coming to the Facility, so there is a net zero effect on truck loads entering and leaving the plant.
8. The added infrastructure did not increase or modify the footprint of the facility. The cost of the corn oil extraction system was approximately \$4.5 million. That is less than 5% of the overall cost of the Facility (which cost over \$100 million to build).

On 12/22/15 PEC filed a change request with EFSC for the corn oil extraction system and asserted that the above described changes did not substantially change the Facility operations or otherwise rise to the level of impacts requiring an amendment under OAR 345-027-0050(1).² Specifically, PEC asserted the following:

- The corn oil extraction infrastructure did not add to or modify the Facility Site Certificate boundary;
- The corn oil extraction infrastructure did not add to or modify any of the related and supporting facilities (e.g. no change in natural gas and electrical lines serving the Facility);
- The investment for the corn oil extraction infrastructure amounted to less than 5% of the total investment for the Facility;
- The amount of concrete poured was less than 5% of the concrete used for the rest of the Facility;
- The amount of natural gas used by the corn oil extraction infrastructure was less than 5% of the natural gas used for the rest of the Facility;
- There was no net change to the number of vehicles entering or leaving the Facility as a result of the corn oil extraction and shipping;
- There was no change to air emissions at the facility under the existing air permit;
- The corn oil extraction infrastructure did not require the addition of any new conditions;
- All applicable laws were followed in installing the corn oil extraction system. As noted above, building permits and DEQ approval were secured prior to installation.

EFSC staff disagreed with PEC and determined that the corn oil extraction infrastructure and operations amounted to a “substantial” change that conflicted with Mandatory Condition VI.A.3 of the Site Certificate, namely that PEC design, construct, operate and retire the facility substantially as described in the site certificate. EFSC staff further concluded that the changes could violate General Condition VII.1, which required that the general arrangement of the Facility shall be substantially as shown in the ASC (Site Certificate Application Exhibit C, Figure C-3).

² PEC noted that OAR 345-027-0050(2)(a) established that a less than 10% increase in fuel use for electricity generating facilities is one factor that supports no need to amend a Site Certificate. While OAR 345-027-0050(2)(a) specifically refers to electricity generating facilities, PEC asserted, by analogy, that less than a 10% increase in any fuel and material use for an ethanol production facility similarly should be deemed not to rise to the level of “substantial” for purpose of Mandatory Condition VI.A.3.

As demonstrated above, the corn oil extraction infrastructure does not have the potential to adversely impact any of the Council standards. Nor did EFSC staff conclude that any standards might be potentially adversely impacted by the changes. Slight increases in the energy and water use and the concrete poured inside the existing Facility boundary and within the existing developed footprint at the Facility did not have the potential to adversely impact standards such as Geology and Seismicity OAR 345-021-0010(1)(h), Soils OAR 345-021-0010(1)(i), Wetlands OAR 345-021-0010(1)(j), Land Use OAR 345-021-0010(1)(k), Impacts on Protected Areas OAR 345-021-0010(1)(L), Water Resources OAR 345-021-0010(1)(o), Fish and Wildlife OAR 345-021-0010(1)(p), Threatened and Endangered Species OAR 345-021-0010(1)(q), Scenic and Aesthetic Values OAR 345-021-0010(1)(r), Historic, Cultural, and Archaeological Resources OAR 345-021-0010(1)(s), Recreational Facilities and Opportunities OAR 345-021-0010(1)(t), Waste Minimization OAR 345-021-0010(1)(v), or Noise OAR 345-021-0010(1)(x). As noted, the changes did not result in any increased traffic or truck use either, Public Services/Socio Economic Impacts OAR 345-021-0010(1)(u). Short term construction was performed consistent with all prior approved construction and consistent with building permits. The only Council standard that may have been impacted by the addition of the corn oil extraction infrastructure was Facility Retirement and Site Restoration OAR 345-021-0010(1)(w). That standard is addressed in section v, below.

Accordingly, PEC requests that the above described corn oil extraction process and infrastructure be added to the Site Certificate, along with a revised ASC (Exhibit B, Revised Figure C-3) showing the corn oil extraction infrastructure. Specifically the following wording should be added to the Site Certificate description at P2, Line 39-43 (new text in bold):

“In the processing building, ground corn will be mixed with water and enzymes to make a mash, and the mash will be cooked in a series of retention tanks to break the complex sugars down into fermentable sugars. The processing building will house steel storage tanks for aqueous ammonia, enzymes, sulfuric acid, sodium hydroxide, and urea. **Also in the processing building is the equipment for extracting corn oil from the mash. A centrifugal separation unit removes up to 50% of the oil from the mash. The process can separate up to 50% of the corn oil and produce up to 2.4 MMgy of oil, for sale and distribution.**”

Except for modification of the Mandatory Retirement condition, IV.C.4, as discussed in section v below, no change to any existing condition or new condition is needed for the amended site certificate with respect to the corn oil extraction infrastructure.³

³ As discussed in Section v, PEC requests that the retirement and bonding conditions be amended. Retirement and Financial Assurance Condition IV.C.4 required PEC to post a bond or letter of credit in the amount of \$800,000 (in Second Quarter 2007 dollars) naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The amount of the current bond has increased to \$905,600 in 2015/16 dollars. The retirement cost of the corn oil extraction system is estimated at \$400,000, and was not included in the 2007 retirement and financial assurance estimate for the Facility.

ii. Sugar Addition System

As described above, under the Site Certificate description, the Facility was to use corn exclusively as the feedstock to produce ethanol. In 2013, PEC responded to a request from the US Department of Agriculture to blend granulated sugar into its ethanol production process. The short term request occurred due to high levels of surplus sugar on the US market. During the short term blending, the sugar was significantly subsidized resulting in cost savings to PEC in the overall production process. PEC discontinued the blending of granulated sugar in 2013 when the surplus and subsidies ended. The sugar addition system infrastructure remains installed but unused at the Facility. Accordingly, PEC seeks an amendment that adds to the Site Certificate description the use of the sugar addition system to account for the previous use, and in the event PEC may seek to begin blending of sugar again in the future.

The sugar addition system resulted in a change to the feedstock by replacing up to 15 percent of the corn feedstock with granulated sugar. The system has the capacity to process up to 150 tons per day of sugar for the ethanol production process.

1. The following structural changes were made to allow for the sugar addition system: (See Exhibit B for depiction of the sugar addition system and components shown in aquamarine):
 - A. 100 ton stainless steel bin to hold the sugar – self-supporting structure with ladder access and pneumatic fill tube
 - B. A rotary feeder (attached to bottom of tank)
 - C. Screw conveyor with transition (meets up with existing equipment where the sugar is mixed with corn flower)
 - D. Dust collector (collects sugar dust at top of tank)
 - E. Electrical control panel which also included process controls (at base of tank)
 - F. A concrete base for steel bin
2. A new concrete foundation was poured for the steel bin. An area 18 ft x 18 ft x 1.75 ft was excavated to create a foundation for the system. There was no fill added and the amount of concrete for the foundation was 24 cubic yards. That is less than 1% of the concrete used on the rest of the facility.
3. Necessary building permits were obtained for the installation of the infrastructure and DEQ required a Notice of Intent to Construct be filed for the dust collector. No change was required to the WPCF permit for the Port of Morrow. Copies of the building permits and DEQ authority are attached as Exhibit D.
4. There was no net change to the number of trucks entering or leaving the Facility during operation of the sugar addition system. 3 to 4 trucks per day were required to deliver the sugar to the Facility but that was offset by 3 to 4 less trucks per day needed to transport feed offsite (use of less corn resulted in less corn protein, germ and insoluble, and the resulting amount of cattle feed produced for the same amount of ethanol).

5. The added infrastructure did not increase or modify the footprint of the facility. The cost of the sugar addition system was approximately \$250,000. That is less than 1% of the overall cost of the Facility (which cost over \$100 million to build).
6. The sugar addition system resulted in no change to the natural gas use at the facility and to a slight increase in electricity use. Specifically, the rotary feeder, screw conveyor and dust collector consumed approximately 20 HP of electrical power. The system was powered from an existing electrical circuit with a new line run to the sugar addition system.
7. No piping changes were required for the sugar addition system.
8. There was a slight reduction (less than 5%) in water use in the mash process when using sugar. There was no impact on wastewater.
9. No hazardous waste was generated during the construction or operation of the sugar system.
10. There was no change in the cooling tower water recirculation rate or to the potential drift from the cooling towers resulting from the use of the sugar addition system.

On 1/15/16, PEC filed a change request to EFSC for the sugar addition system and asserted that the above described changes did not substantially change the Facility operations or otherwise rise to the level of impacts requiring an amendment under OAR 345-027-0050(1). Specifically, PEC asserted the following:

- The sugar addition infrastructure did not add to or modify the Facility Site Certificate boundary;
- The sugar addition infrastructure did not add to or modify any of the related and supporting facilities (e.g. no change in natural gas and electrical lines serving the Facility);
- The investment for the sugar addition infrastructure amounted to less than 1% of the total investment for the Facility;
- The amount of concrete poured was less than 1% of the concrete used for the rest of the Facility;
- There was no increase to the amount of natural gas used for the sugar addition infrastructure;
- There was no net change to the number of vehicles entering or leaving the Facility as a result of using the sugar addition infrastructure;
- There was no change to air emissions at the facility under the existing air permit;
- The sugar addition infrastructure did not require the addition of any new conditions;
- All applicable laws were followed in installing the sugar addition infrastructure. As noted above, building permits and DEQ approval were secured prior to installation.

EFSC staff disagreed with PEC and determined that the sugar addition infrastructure amounted to a “substantial” change that conflicted with Mandatory Condition VI.A.3 of the Site Certificate, namely that PEC design, construct, operate and retire the facility substantially as described in the site certificate. EFSC staff further concluded that the changes could violate General Condition VII.1, which required that that the general arrangement of the Facility shall be substantially as shown in the ASC (Exhibit C, Figure C-3).

As supported above, PEC complied with all construction conditions in the Site Certificate when it added the sugar addition system. It secured all necessary land use and building permits as well as filing a Notice of Intent to Construct with DEQ for the dust collector. The sugar addition infrastructure also did not have the potential to adversely impact any of the Council standards when installed or when operating. Nor did EFSC staff conclude that any standards might be potentially adversely impacted by the changes. Slight increases in the concrete poured and electricity use, no change to natural gas use, and a slight reduction in water use at the Facility did not have the potential to adversely impact standards such as Hazardous Materials OAR 345-021-0010(1)(g), Geology and Seismicity OAR 345-021-0010(1)(h), Soils OAR 345-021-0010(1)(i), Wetlands OAR 345-021-0010(1)(j), Land Use OAR 345-021-0010(1)(k), Impacts on Protected Areas OAR 345-021-0010(1)(L), Water Resources OAR 345-021-0010(1)(o), Fish and Wildlife OAR 345-021-0010(1)(p), Threatened and Endangered Species OAR 345-021-0010(1)(q), Scenic and Aesthetic Values OAR 345-021-0010(1)(r), Historic, Cultural, and Archaeological Resources OAR 345-021-0010(1)(s), Recreational Facilities and Opportunities OAR 345-021-0010(1)(t), Waste Minimization OAR 345-021-0010(1)(v), or Noise OAR 345-021-0010(1)(x). As noted, the changes did not result in any increased traffic or truck use either so there was no potential impact to Public Services/Socio Economic Impacts OAR 345-021-0010(1)(u). The only possible Council standard that was impacted by the addition of the sugar addition infrastructure was Facility Retirement and Site Restoration OAR 345-021-0010(1)(w). That standard is addressed in section v, below.

Accordingly, PEC requests that the above described sugar addition process and infrastructure be added to the Site Certificate, along with a revised ASC (Exhibit B, Revised Figure C-3) showing the sugar addition infrastructure. PEC further requests that the following description of the sugar addition system be added to the Site Certificate at Section III(A), at Line 41:

“In addition to using corn as the primary feedstock, certificate holder may from time to time blend in granulated sugar as an additional feedstock at no more than 15% sugar and 85% corn.”

Except for modification of the Mandatory Retirement condition, IV.C.4, as discussed in section v below, no change to any existing condition or new condition is needed for the amended site certificate with respect to the sugar addition infrastructure.⁴

⁴ As discussed in footnote 2 and in Section v, below, PEC requests that the retirement and bonding conditions in the Site Certificate be amended. The retirement cost of the sugar addition system is estimated at \$50,000 and was not included in the 2007 retirement and financial assurance estimate for the energy facility.

iii. CO2 Capture Infrastructure

In the Site Certificate description of the ethanol production process for the Facility, CO2 was a waste product. The waste CO2 was vented out the roof of the Facility and into the atmosphere. In 2013, PEC was approached by Kodiak Carbonics (Kodiak), a company with expertise in CO2 capture for use in bottling and other applications. Kodiak proposed to install, own and operate a CO2 capture plant within the existing Facility site boundary, under sublease agreement with PEC. Kodiak also proposed to install, own and maintain the required interconnecting piping and infrastructure to pipe the CO2 gas stream from the PEC scrubber to the CO2 capture plant. The CO2 capture plant and interconnection piping is now operating,

Connections to the CO2 capture plant:

a. 12" and 14" vapor supply line (owned and maintained by Kodiak as part of the CO2 capture plant): This line is approximately 450 ft long and is the supply line for the raw CO2 gas from PEC to Kodiak. An automatic valve was installed in the existing PEC CO2 scrubber stack and the pipeline feeds a multistage gas blower unit also owned and operated by Kodiak. This blower then pressurizes the CO2 rich gas stream over to the Kodiak process. The line from the scrubber to the blower is 14 inches in diameter and 100 ft long. The line from the blower to inside the Kodiak facility is 400 ft long and 12 inches in diameter. This line conveys at least 250 tons/day of raw gas.

b. Blower skid (owned and maintained by Kodiak as part of the CO2 capture plant): A blower skid is located just outside the Kodiak facility as depicted in Exhibit B. Kodiak owns and powers the equipment on the skid. There are two main vessels on the skid, from which water is drained out of the raw gas. The first vessel is a 400 HP blower (compressor). The second vessel is the blower after cooler. The excess water is discharged back into the PEC system through the water return line described further below. The electrical motor is 4,160 Volts and fed by underground wires from the Kodiak facility. The skid is 22 feet long, 7 feet wide and 9 feet tall.

c. 2" water return line (owned and maintained by Kodiak as part of the CO2 capture plant): Kodiak has blowdown water from its process scrubbers. This spent water is sent to the PEC process condensate tank for reuse. The reuse reduces the amount of fresh water PEC must use for its process (by less than 5%). This line is approximately 450 ft long.⁵

d. 3" vapor return line (owned and maintained by Kodiak as part of the CO2 capture plant): In the Kodiak process; inert gases (nitrogen, oxygen, etc.) and VOCs are removed from the CO2 gas. These gases along with a small amount of CO2 are sent back to PEC through this line and discharged near the exit of the CO2 scrubber.

⁵ Kodiak has a separate natural gas line and meter from Cascade Natural Gas that is not connected to the PEC process. The natural gas line splits off the supply line that services the PEC facility at the 1650 foot mark, shortly before the 1700 foot mark where the PEC meter is situated. Kodiak also has its own water supply and meter from the Port of Morrow delivered by a pipe split off the main water supply line to PEC.

On 1/15/16, PEC filed a change request with EFSC for the CO2 capture plant interconnecting piping and re-asserted that the CO2 capture plant and interconnection piping infrastructure is not subject to EFSC jurisdiction.⁶ PEC further asserted that in any case, the above described changes did not substantially change the Facility operations or otherwise rise to the level of impacts requiring an amendment under OAR 345-027-0050(1). EFSC staff agreed that the CO2 capture plant does not substantially modify energy facility operations or the ethanol production process and should not be considered a related and supporting facility to the Facility. Accordingly, EFSC staff concluded that the CO2 capture plant is not required to be included in this Amendment Request. However, EFSC staff further concluded that the interconnection components, also owned by Kodiak, could require a change to the existing Site Certificate condition IV.C.4, Retirement and Financial Assurance.⁷

PEC continues to assert that the interconnection components should be treated as part of the CO2 capture plant and also be excluded from EFSC jurisdiction and any impact on retirement and financial assurance. The interconnection components are all owned and maintained by Kodiak. Kodiak installed them at the same time and under the same permits that it installed the CO2 capture plant. Under a sublease with PEC, Kodiak also is required to remove all its property upon termination or expiration of the sublease.⁸

The interconnection components also did not have the potential to adversely impact any of the Council standards when installed or when operating. For instance, the interconnecting piping for the CO2 capture did not increase electricity, gas or water use. It did not increase truck traffic. It did not increase hazardous materials use. It did not impact subsurface soils. Nor did EFSC staff conclude that any standards might be potentially adversely impacted by the changes. Therefore, the installation and use of the interconnection components does not have the potential to adversely impact standards such as Hazardous Materials OAR 345-021-0010(1)(g), Geology and Seismicity OAR 345-021-0010(1)(h), Soils OAR 345-021-0010(1)(i), Wetlands OAR 345-021-0010(1)(j), Land Use OAR 345-021-0010(1)(k), Impacts on Protected Areas OAR 345-021-0010(1)(L), Water Resources OAR 345-021-0010(1)(o), Fish and Wildlife OAR 345-021-0010(1)(p), Threatened and Endangered Species OAR 345-021-0010(1)(q), Scenic and Aesthetic Values OAR 345-021-0010(1)(r), Historic, Cultural, and Archaeological Resources OAR 345-021-0010(1)(s), Recreational Facilities and Opportunities OAR 345-021-0010(1)(t), Public Services/Socio Economic Impacts OAR 345-021-0010(1)(u), Waste Minimization OAR 345-021-0010(1)(v), or Noise OAR 345-021-0010(1)(x). The only possible Council standard that was identified by EFSC staff as potentially being impacted by the addition of the interconnecting piping was Facility Retirement and Site Restoration OAR 345-021-0010(1)(w). PEC continues to assert that since the interconnection components should be deemed part of the CO2 capture plant as they were installed and are owned and maintained by Kodiak as part of the CO2 capture plant. Should EFSC disagree and deem the interconnection components as impacting the Facility Retirement and Site Restoration standard, that issue is addressed in section v, below.

⁶ Prior to installation of the CO2 capture plant, on 8/17/14, PEC notified EFSC that negotiations had commenced to install the CO2 capture plant and asserted that the CO2 capture plant was not subject to EFSC jurisdiction.

⁷ As discussed in footnote 2 and in Section v, below, PEC requests that the retirement and bonding conditions be amended. The retirement cost of the interconnection components connecting the Facility to the CO2 capture plant is \$50,000, and was not included in the 2007 retirement and financial assurance estimate for the energy facility.

⁸ A copy of the sublease is attached as Exhibit E.

Based on the foregoing, PEC requests that the above described interconnection be added to the Site Certificate, along with a revised ASC Figure C-3 (Exhibit B) showing the interconnecting piping and skid and correlation to the CO2 capture plant. PEC further requests that the following description of the interconnecting piping and skid be added to the Site Certificate at Section III(A), at Page 3, Line 8:

“The fermentation process creates CO2 as a waste by-product. The CO2 is captured by way of piping it from the scrubber to a CO2 capture plant located inside the Facility but owned by a separate third-party, Kodiak Carbonics. The CO2 capture plant and interconnection components are located within the existing energy facility site boundary, under sublease agreement with CEP. The CO2 capture plant and interconnection components are not subject to EFSC jurisdiction or to this site certificate.”

iv. Increase in Volume of Annual Ethanol Production

The Site Certificate described that the Facility would produce 35 million gallons (Mmgy) of ethanol per year. However, there is no condition limiting production to 35 million gallons per year. In fact, the PEC Application provided conflicting information noting at Exhibit B.1 that the Facility would produce 35 MMgy nameplate capacity with a maximum output of 35 MMgy, but in B.6 it stated that the Facility would produce 35 MMgy proposed capacity with a maximum output of 42 MMgy.⁹ Unfortunately, the Site Certificate did not include the reference to a maximum output of 42 MMgy. Over the years of operation, PEC has been able to optimize system performance to increase ethanol production above the 35 million gallons per year, with minimal modifications to existing infrastructure.

First, PEC added a flash tank to the system which enabled the Facility to fully utilize the three evaporator vessels that were part of the original Site Certificate. Without the flash tank, PEC was only able to fully utilize two of the three evaporator vessels and the third functioned as a flash tank recovering heat from the beer column. The flash tank was added at the same time as the corn oil extraction infrastructure. By adding a dedicated flash tank all three evaporator vessels can now be fully utilized for evaporation, providing 50% additional evaporation for the syrup and helping to maintain the plant water balance. (See Exhibit B for depiction of the flash tank shown in yellow).

Second, PEC improved efficiencies at the Facility. For example, the internal trays to the beer column were upgraded to allow more air flow and the molecular sieves had laterals installed to allow better vapor flow. It also provided for 15% more adsorption bead capacity,

⁹ Exhibit B.6: “Response: The applicant began construction in May 2006, of a sub-jurisdictional 27- million gallon per year plant, and plans to complete the project in early summer 2007. The cost of the plant is expected to be approximately \$70 million. The foot print, employees, hours of operation, and supporting facilities required for a sub-jurisdictional and proposed 35 MMgy (42 MMgy maximum) plant are identical. Only the quantities of raw materials and product will differ if the Site Certificate is granted.

improved centrifuge operation and increased most pump output to their full designed flow rate.

With the above described modifications and efficiencies, on average, the Facility has produced 35.1 Mmgly. The largest output for the Facility to date was 37.2 Mmgly in 2010. The lowest to date was 32 Mmgly in 2013.

On 12/22/15, PEC filed a change request with EFSC for an increase up to 44 Mmgly of ethanol production and asserted that this change did not substantially change the Facility operations or otherwise rise to the level of impacts requiring an amendment under OAR 345-027-0050(1).

EFSC staff disagreed with PEC and determined that an increase in ethanol production above 35 Mmgly to a maximum of 44 Mmgly would amount to a 25 percent increase and that a 25 percent increase amounted to “a substantial modification from the nameplate capacity described in Section III.A of the Site Certificate.” EFSC staff further concluded that the increase in production “could result in significant adverse impact” to Council standards that had not been addressed previously. Specifically, EFSC staff cited potential adverse impacts to soils, recreation and public services, and indicated PEC needed to provide more analysis of those Council standards to establish the increase would not cause significant adverse impact to any of them.

More specifically, EFSC staff noted:

- **Soil Protection:** A 25 percent increase in annual ethanol production is assumed to result in an increase in cooling tower drift (i.e. deposition of solids), which could increase chemical factors impacting soils, vegetation and other adjacent land uses. While the department does not anticipate a significant adverse impact to soils, an updated drift analysis or assessment of maximum impacts from changes in cooling tower recirculation rate and associated drift from the cooling towers, with proposed modifications, was not provided. Therefore, the proposed increase in annual ethanol production could result in a significant adverse impact that the Council has not addressed in an earlier order and the impact could affect a resource (soils) protected by Council standards.
- **Recreation:** A 25 percent increase in annual ethanol production would result in a “slight” increase in daily truck traffic, as stated by the certificate holder. While the department does not anticipate a significant adverse impact to recreational opportunities within the analysis area, an analysis of peak daily traffic impacts from the facility, with proposed modifications, was not provided. Therefore, the proposed increase in annual ethanol production could result in a significant adverse impact that the Council has not addressed in an earlier order and the impact could affect a resource (recreational opportunities) protected by Council standards.
- **Public Services:** A 25 percent increase in annual ethanol production would result in a “slight” increase in daily truck traffic, as stated by the certificate holder. While the department does not anticipate a significant adverse impact on public services (roadways) within the analysis area, an analysis of peak daily traffic impacts from the facility, with proposed modifications, was not provided. Therefore, the proposed

increase in annual ethanol production could result in a significant adverse impact that the Council has not addressed in an earlier order and the impact could affect a resource (public services) protected by Council standards.

PEC has assessed the other Council standards and concluded that an increase in ethanol production to a maximum of 44 Mmgy would not adversely impact any of them, namely, Hazardous Materials OAR 345-021-0010(1)(g), Geology and Seismicity OAR 345-021-0010(1)(h), Wetlands OAR 345-021-0010(1)(j), Land Use OAR 345-021-0010(1)(k), Impacts on Protected Areas OAR 345-021-0010(1)(L), Water Resources OAR 345-021-0010(1)(o), Fish and Wildlife OAR 345-021-0010(1)(p), Threatened and Endangered Species OAR 345-021-0010(1)(q), Scenic and Aesthetic Values OAR 345-021-0010(1)(r), Historic, Cultural, and Archaeological Resources OAR 345-021-0010(1)(s), Waste Minimization OAR 345-021-0010(1)(v), or Noise OAR 345-021-0010(1)(x).¹⁰

An increase in production of ethanol would not change anything with respect to existing infrastructure. There would be no expansion of types of feedstocks used or addition of any further storage tanks or pipes or equipment. Increase to 44 Mmgy would result in a 25% increase in water use and wastewater. But that increase would not trigger any required change to the existing wastewater discharge permit held by the Port of Morrow. Nor would it have the potential to impact the other council standards for Fish and Wildlife or Threatened and Endangered Species. 44 Mmgy of production would result in less than a 10% increase in electricity and natural gas use due to overall efficiencies in production at that higher amount. The increases also would have no impact on supporting and relating facilities.

With respect to standards for soils and cooling tower drift raised by EFSC staff (Exhibits I and Z), PEC asserted in the Site Certificate Application that "Impacts to soils from cooling towers are anticipated to be negligible." It based that conclusion on the fact that cooling tower drift analysis for the much more impactful Portland General Electric Coyote Springs Power Generating Plant, only 1.5 miles to the northeast of the Facility, was deemed to have no significant impact to surrounding soils and natural resources. At that time, EFSC staff agreed that in light of the Coyote Springs drift analysis, no independent drift analysis (SACTI modeling) was needed for the Facility. That was based on the fact that the Facility cooling tower system is roughly 20 percent the size of Coyote Springs (124,01200 gallons per minute for the Facility compared to 65,875 gallons for Coyote Springs). Given that prior conclusion by EFSC, a 25 percent increase in water use for the cooling tower system associated with 44 Mmgy of ethanol production would still be less than half the amount of the Coyote Springs cooling tower, which itself was deemed insignificant. Accordingly, EFSC should conclude that a 25% increase of cooling tower water would not cause significant impact to a council standard.

With respect to traffic impacts raised by EFSC staff (Recreation/Exhibit T and Public Services/Exhibit U), in the Site Certificate Application, PEC estimated, as a worst case assessment, that the Facility could generate up to 284 trips per day, 7 days a week (713,680 trips per year), taking into consideration the import of corn and the export of ethanol and co-product. Exhibit U, Table U. PEC further noted that Morrow County did not require a traffic

¹⁰ The cost of adding the flash tank was \$457,397. The estimated cost to remove the flash tank is \$60,000. PEC discusses the Mandatory Retirement condition, IV.C.4 in section v below.

impact assessment for projects that would generate less than 400 trips per day. That is because roads within the project area are lightly traveled and would be able to accommodate the increased traffic, even in a worst case scenario. In reality, PEC estimated that most of the corn shipments to the Facility would arrive by rail and most of the ethanol shipments out of the Facility would occur by barge, and that resulting truck traffic would be much less than 284 trips per day. PEC further estimated it would only truck material into or out of the Facility on weekdays, and not on weekends.

In practice, since 2012, the amount of ethanol departing the Facility by truck has been only 33% as compared to barge. It has dipped even further to 21% over the past two years. Therefore, a 25% increase in ethanol production and shipment, added to the existing truck volume, will have an insignificant impact on traffic in the area. It still would not come close to rising to the 284 trip worst case scenario in the original application, not to mention the 400 trips per day that is required to trigger a traffic impact assessment by Morrow County. Therefore, the traffic impacts of a 25% increase in ethanol production would be insignificant and not impact EFSC standards concerning recreation and public services.

Accordingly, PEC requests that the above described flash tank be noted in the revised ASC Figure C-3 (Exhibit B). PEC further requests that the description in the Site Certificate of the annual production of ethanol at Section III(A), at Page 2, Line 36 be amended to state: **“up to 44 million gallons per year.”**

v. Retirement and Bonding

PEC's Site Certificate includes two conditions with respect to retirement of the facility that PEC requests be altered in this amendment process. The first condition, IV.C.2, requires PEC, as part of a final retirement plan, to provide “a description of actions the certificate holder proposes to take to restore the site to a useful, non-hazardous condition suitable for agricultural use.” The second condition, IV.C.4, requires PEC to submit a bond or letter of credit in the amount of \$800,000 (as of Q2 20007). The amount was based on what PEC estimated it would cost to remove the infrastructure installed at the Facility including holding tanks, process equipment, wiring and piping, and leaving the site at slab grade with underground pipes and wiring left in place. As a result, PEC posted a bond in the amount of \$800,000 in 2007, which was subsequently raised to the current \$905,600 as of 2015/16 based on increase in current value as described in the Site Certificate condition IV.C.4(a).

These conditions arose out of OAR 345-022-0050. That rule requires EFSC to make a finding that the site “can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility.” It further provides that EFSC must find that the applicant “has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.”

Based on conversations with EFSC staff, it appears that the reference to returning the site to a condition “suitable for agricultural use” was not intended and that, at a minimum, the condition needs to be amended to state to a condition “suitable for industrial use.”

With respect to retirement, PEC has been in discussions with the Port of Morrow concerning the infrastructure. The Port now is of the position that it would prefer PEC to leave any and all above-ground infrastructure in place upon retirement of the Facility. The Port is willing to enter a legally binding agreement that (1) states that leaving the above ground infrastructure after cleaning and removing any chemicals, fuels or other hazardous materials, would return the site to a “useful, non hazardous condition; and (2) shifts any legal liability for removing above ground infrastructure to the Port and away from EFSC and PEC.

EFSC rules do not define what is considered a “useful, non-hazardous condition.” Nor does statute do so. In fact, the statutory basis for OAR 345-022-0050 does not even mention returning a facility to a “useful, non-hazardous condition” nor does it direct EFSC to obtain a bond or letter of credit from an applicant. The only relevant authority states:

(1) “EFSC shall adopt standards for the siting, construction, operation and retirement of facilities.” ORS 469.501(1). And,

(2) “In accordance with the applicable provisions of ORS chapter 183, and subject to the provisions of ORS 469.501(3), adopt standards and rules to perform the functions vested by law in the council...” ORS 469.470(2).

So, while EFSC may have the statutory authority to create the requirement that an applicant return a site to a useful and non-hazardous condition, it is not required to do so by statute. Accordingly, EFSC has significant discretion in determining what should be deemed a “useful and non-hazardous condition.”

The only treatment of "useful and non-hazardous" in the Final Order is when it states: "a useful, non-hazardous condition is one consistent with the applicable local comprehensive land use plan and land use regulations." Other than noting that the site is zoned industrial, the Final Order does not discuss what the local comprehensive plan and land use regulations provide. The Final Order also notes that the Port of Morrow agreed with PEC that upon retirement, PEC could leave the concrete at slab grade and leave the underground utility connections as well. Final Order, P13, L26. Based on that agreement, the Final Order then noted that PEC must dismantle and remove structures down to the slab grade upon retirement and to post a bond to provide for such removal.

There is nothing in the underlying comprehensive plan and land use regulations that require an industrial zoned facility, upon retirement, to have all above ground structures dismantled and removed. To the contrary, such structures are compatible with industrial zoning and use. Accordingly, if the Port of Morrow is now of the opinion that it would prefer any structures that PEC does not choose to remove to be left in place upon retirement (e.g. buildings, tanks, equipment, piping etc, in addition to underground wiring and slab grade) there is no reason that doing so should not be deemed "a useful, non-hazardous condition." As discussed above, there is nothing in the EFSC regulations or underlying statutes that define "useful, non-hazardous." This would also be consistent with how EFSC treated the issue in the Final Order. What was agreed to between the Port of Morrow and PEC in 2007 (at that time returning the site to slab grade with underground utilities left intact) was deemed by EFSC to suffice for returning the site to a useful, non-hazardous condition. The same

should be true now that the Port agrees that all above slab grade structures also should remain upon retirement.

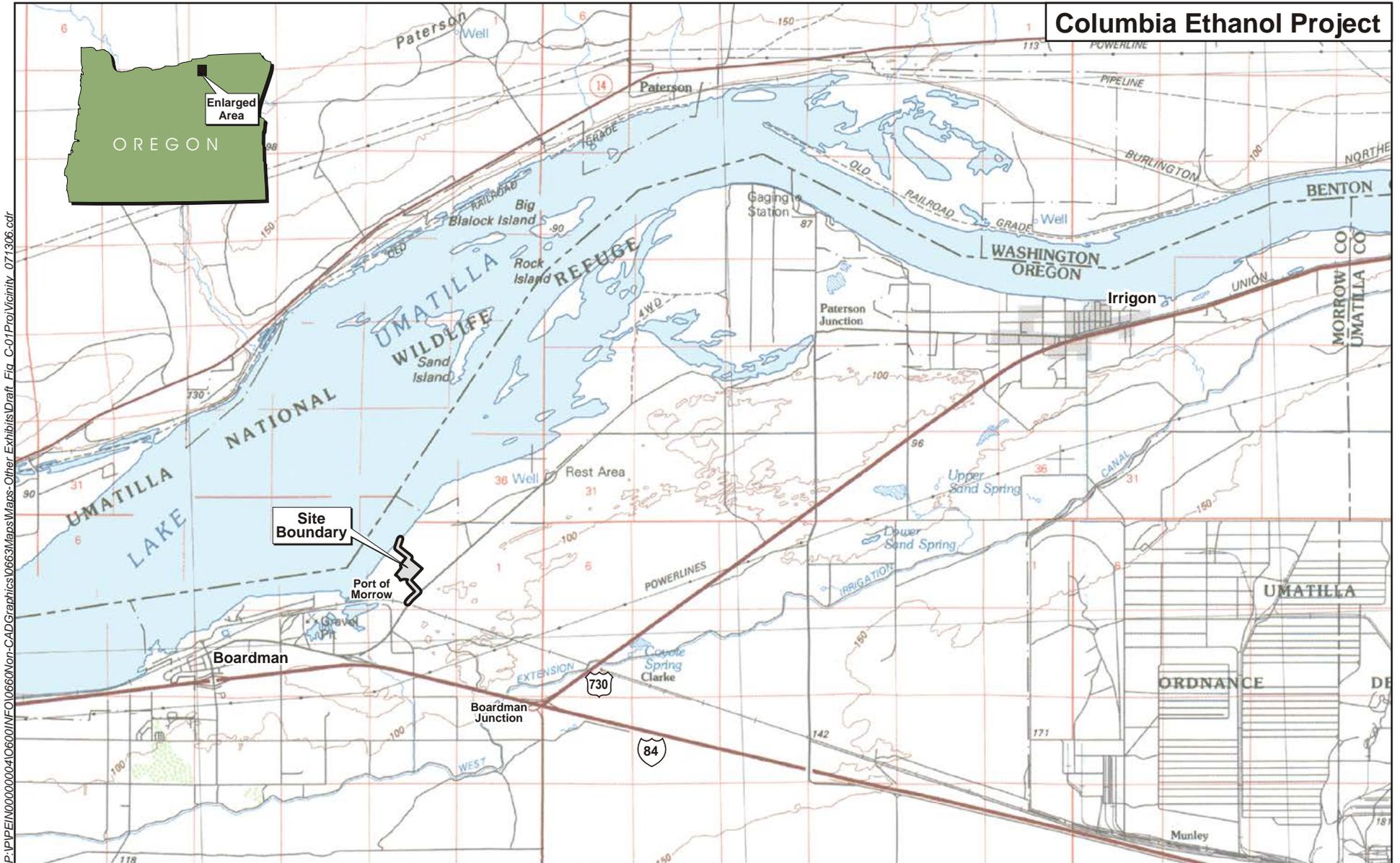
As a second and independent option, EFSC also could ignore the question of what should be deemed useful and non-hazardous, and it could simply allow the Port of Morrow to step into any all liability for the structures on the site at the time of retirement. So long as EFSC is clearly and expressly not on the hook for removing any structures upon retirement, that should also suffice. It would be awkward for EFSC to say that the Port cannot choose to keep the value of above grade structures in place upon reclaiming the retired site - again, so long as there is no potential liability for EFSC in doing so. Accordingly, if it prefers, EFSC could simply assume that returning the site to slab grade with utilities intact would be necessary to return the site to "useful, non-hazardous" but EFSC could further allow the Port of Morrow to take on any and all liability for achieving that upon retirement. This would allow the Port to decide when the time comes, how it wants to proceed with the site.

The circumstances of this site are also very limited. What PEC suggests would only apply to an industrial zoned site located in a public Port's jurisdiction. Unlike a private sector property owner, a public port entity is not at risk to declare bankruptcy and disappear in the next 20 years. Also, the conditions in the final order and site certificate pertaining to ongoing evaluation of hazardous spills (a Phase I Site Assessment every 10 years) and bonding for the potential costs of hazardous testing and remediation (\$250,000 in the Final Order) would be unchanged.

Accordingly, PEC requests that the Mandatory Retirement condition, IV.C.2(b) be modified to remove the reference to "agricultural" and replace it with "industrial." PEC further requests that IV.C.4, be modified, subject to the pre-condition that a legally binding agreement between the Port of Morrow and PEC is executed consistent with the described provisions above, to replace "\$800,000" with "\$250,000."

If EFSC declines both of the foregoing options, then PEC requests that the amount of the bonding requirement remain unchanged. The various infrastructure improvements described above amount to less than 5% of the overall cost of the Facility. Accordingly, they should not rise to the level of requiring a modification to the bonding amount for the Facility.

Columbia Ethanol Project

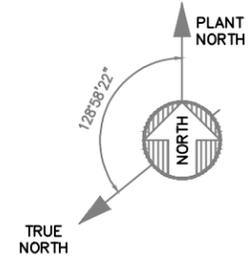
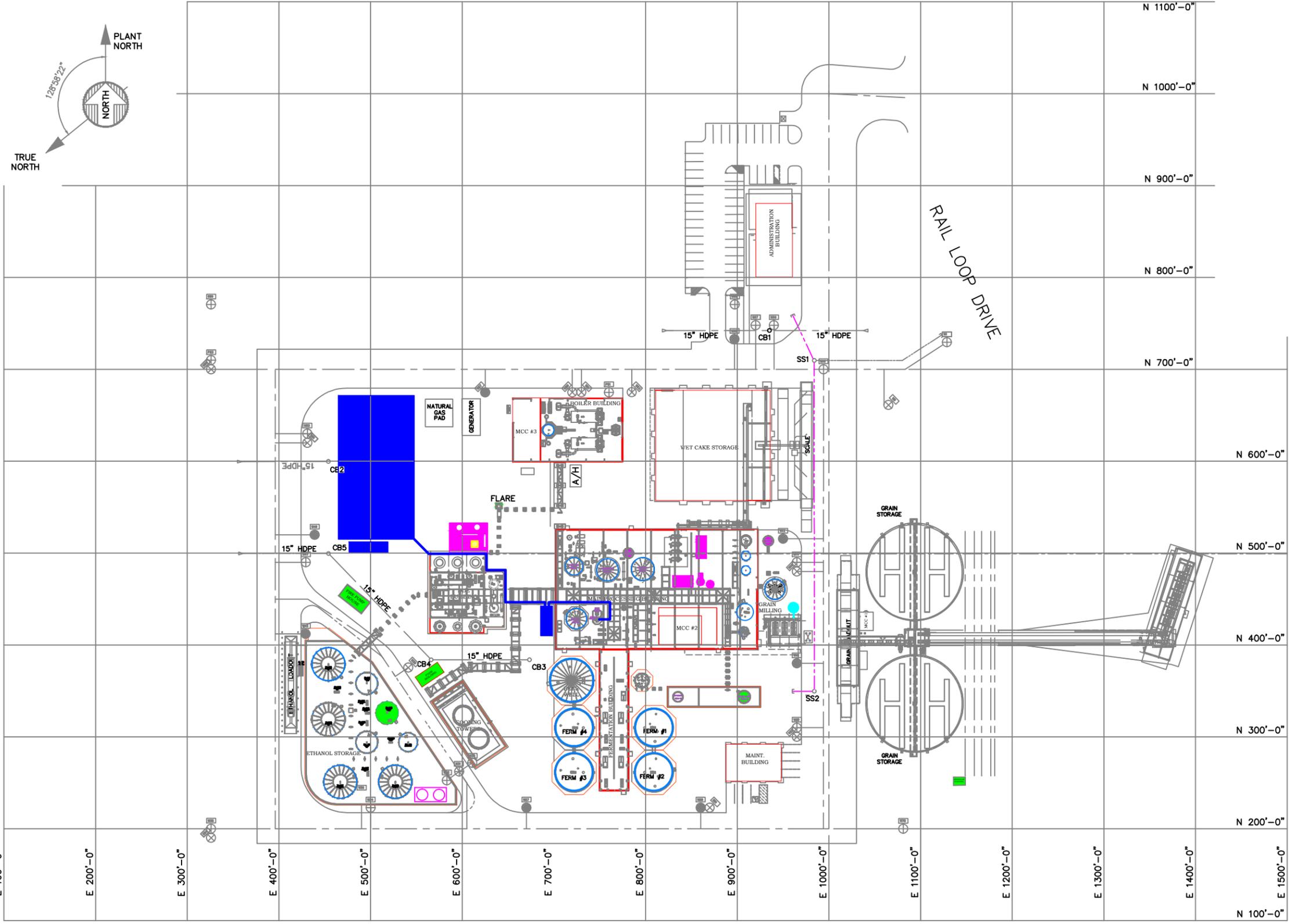


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USGS 30x60 Series Quadrangle: Hermiston, Oregon-Washington 1984

Figure C-1
Project Vicinity

CHANGES FROM ORIGINAL SITE PLAN	
COLOR CODE	DESCRIPTION
	DAY TANK #2
	AQUEOUS AMMONIA TANK TK-7704
	FIRE PUMP BUILDING
	FIRE SPRINKLER BUILDING FOR GRAIN
	FLARE
NEW PROJECTS	
	SUGAR SYSTEM
	FLASH TANK
	CO2 CAPTURE FACILITY
	CORN OIL SYSTEM



SCALE: 1"=60'-0"

NO.	DATE	BY	DESCRIPTION OF REVISIONS
3	4/5/16	LTJ	ADD PIPELINES TO CO2
2	3/20/16	LTJ	ADDED INFO FOR ODOE
1	8/12/08	PSG	RECORD DRAWING

TKDA
ENGINEERS • ARCHITECTS • PLANNERS

444 Cedar Street, Suite 1500
Saint Paul, MN 55101-2140
(651) 292-4400
Fax: (651) 292-0083
www.tkda.com

DESIGNED: PSG
DRAWN: PSG
CHECKED: VTM

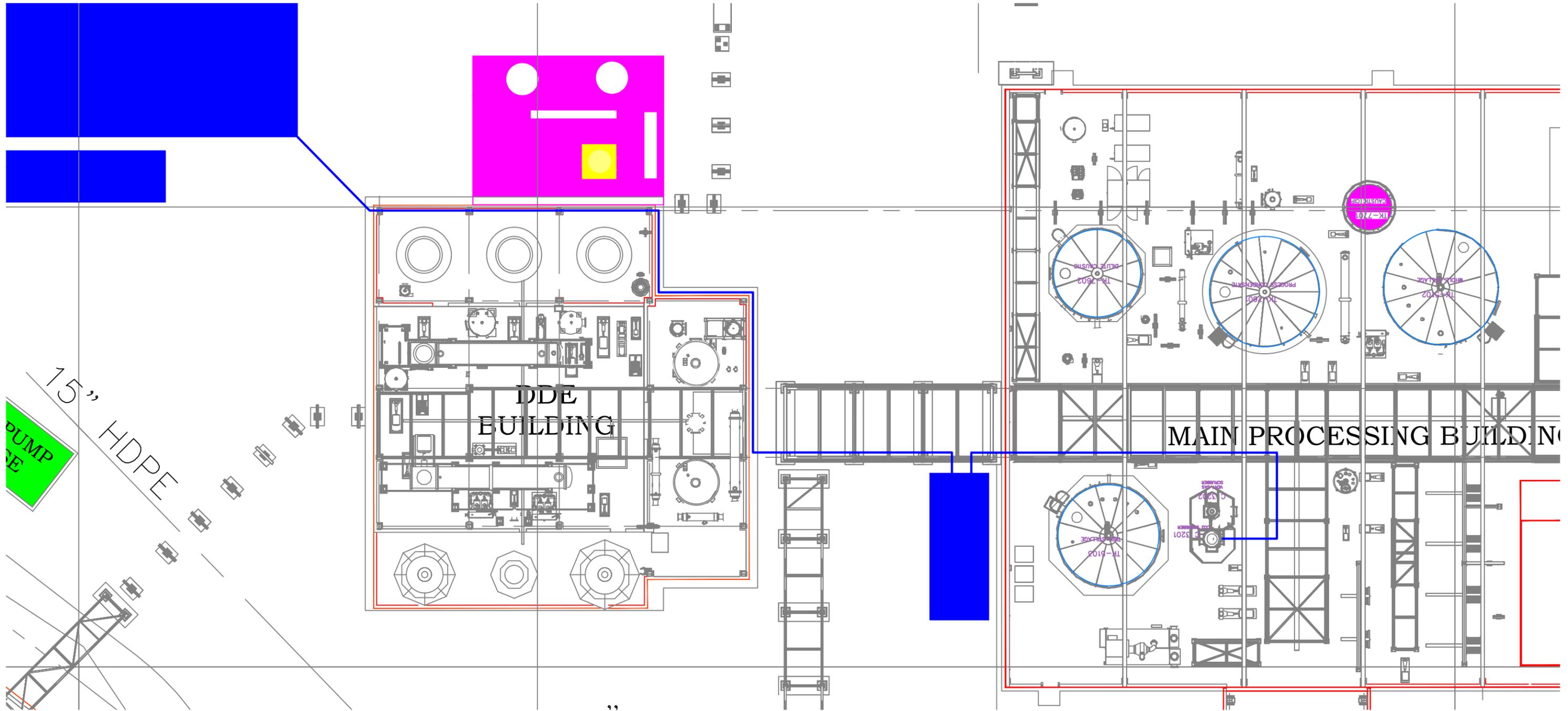
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS DRAWING
ADJUST SCALES ACCORDINGLY.



Pacific Ethanol, Inc.
400 Capital Mall
Sacramento, CA 95814
office: (916) 403-2123
fax: (916) 446-3937
www.pacificethanol.net

**PEI - COLUMBIA
SITE PLAN**

PROJECT NO.
13560.006
DRAWING NO.
001



DDE
BUILDING

MAIN PROCESSING BUILDING

15" HDPE
PUMP HOUSE



City of Boardman
 PO Box 229
 Boardman, OR, 97818
 Phone: (541) 481-9252 Fax: (541) 481-3244

Sprinkler PERMIT# M15-050S
 JOB LOCATION: 71335 Rail Loop Drive Boardman
 JOB DESCRIPTION: Process Piping - MCC Building for Corn Oil Processing

Permit Type	Sprinkler	Permit Status	Issued
Work Type	New	Date Issued	04/14/2015
Use Type	Industrial	Date Expiration	10/11/2015
Constr. Area (Sq Ft)		Total Valuation	\$350,000.00

Parcels

Parcel Number	Zone	Subdivision	Lot
04N2502-00100-A4			

Contacts

Type	Full Name	Main Phone	Address
Applicant	Pacific Ethanol Columbia LLC	(541) 481-2716	71335 Rail Loop Drive Boardman OR 97818
Contact Person	Lyndon Jones	(541) 481-2716	71335 Rail Loop Drive Boardman OR 97818
Owner	Pacific Ethanol	(541) 481-2716	400 Capital Mall, Suite 2060 Sacramento CA 95814

Contractors

Type	Name	Main Phone	License	License Exp
Builder	Barton Laser Leveling Inc.	(541) 564-9830	105850	2015-04-19

Fees

Type	Date Paid	Amount	Outstanding
Commercial Fee	04/28/2015	\$2,416.50	\$0.00
Permit Issuance Fee	04/28/2015	\$20.00	\$0.00
State Fee	04/28/2015	\$292.38	\$0.00
Plan Review Fee	04/28/2015	\$1,583.73	\$0.00
		\$4,312.61	\$0.00

Work Items

Type	Quantity	Unit	Value per Unit	Total Value
------	----------	------	----------------	-------------

Conditions of Issuance
 THE OWNERS OF THIS BUILDING AND THE UNDERSIGNED AGREE TO NOTIFY THE BUILDING OFFICIAL OF ANY CHANGES IN PLANS FOR WHICH THIS PERMIT IS REQUESTED.

Owner/Authorized Signature <i>on file</i>	Date <i>4-28-15</i>
Print Name	
Issuing initials: <i>ms</i>	Date <i>4-28-15</i>



RECEIPT 15-0097

City of Boardman
PO Box 229
Boardman, OR, 97818
Phone: (541) 481-9252 Fax: (541) 481-3244

Sprinkler PERMIT# M15-050S
JOB LOCATION: 71335 Rail Loop Drive Boardman

04/28/2015

Permit Type	Sprinkler	Permit Status	Issued
Work Type	New	Date Issued	04/14/2015
Use Type	Industrial	Date Expiration	10/11/2015
Job Description	Process Piping - MCC Building for Corn Oil Processing	Total Valuation	\$350,000.00

Fees

Type	Date Paid	Amount	Paid
Commercial Fee	04/28/2015	\$2,416.50	\$2,416.50
Permit Issuance Fee	04/28/2015	\$20.00	\$20.00
State Fee	04/28/2015	\$292.38	\$292.38
Plan Review Fee	04/28/2015	\$1,583.73	\$1,583.73
		\$4,312.61	\$4,312.61

Paid By

Full Name	Main Phone	Address
Pacific Ethanol	(541) 481-2716	400 Capital Mall, Suite 2060 Sacramento, CA 95814

Payment Details

Amount Tendered	Payment Method	Check Number	Comments	Remaining Balance
\$4,312.61	Check	508837		0.0



City of Boardman
 PO Box 229
 Boardman, OR, 97818
 Phone: (541) 481-9252 Fax: (541) 481-3244

Building PERMIT# M15-049B
 JOB LOCATION: 71335 Rail Loop Drive Boardman
 JOB DESCRIPTION: MCC Building for Corn Oil Processing

Permit Type	Building	Permit Status	Issued
Work Type	New	Date Issued	04/14/2015
Use Type	Industrial	Date Expiration	10/11/2015
Constr. Area (Sq Ft)	470.0	Total Valuation	\$3,200,000.00

Parcels			
Parcel Number	Zone	Subdivision	Lot
04N2502-00100-A4			

Contacts			
Type	Full Name	Main Phone	Address
Owner	Pacific Ethanol	(541) 481-2716	400 Capital Mall, Suite 2060 Sacramento CA 95814
Applicant	Pacific Ethanol Columbia LLC	(541) 481-2716	71335 Rail Loop Drive Boardman OR 97818
Contact Person	Lyndon Jones	(541) 481-2716	71335 Rail Loop Drive Boardman OR 97818

Contractors				
Type	Name	Main Phone	License	License Exp
Builder	Barton Laser Leveling Inc.	(541) 564-9830	105850	2015-04-19

Fees				
Type	Date Paid	Amount	Outstanding	
Permit Fee New Construction	04/28/2015	\$10,637.90	\$0.00	
State Fee	04/28/2015	\$1,276.55	\$0.00	
Plan Review Fee	04/28/2015	\$6,914.64	\$0.00	
Fire Life Safety Review	04/28/2015	\$4,255.16	\$0.00	
		\$23,084.25	\$0.00	

Work Items				
Type	Quantity	Unit	Value per Unit	Total Value
New Construction	1.0	SQ FT	\$3,200,000.00	\$3,200,000.00

Conditions of Issuance
 THE OWNERS OF THIS BUILDING AND THE UNDERSIGNED AGREE TO NOTIFY THE BUILDING OFFICIAL OF ANY CHANGES IN PLANS FOR WHICH THIS PERMIT IS REQUESTED.

Owner/Authorized Signature <i>on file</i>	Date <i>4.28.15</i>
Print Name	
Issuing initials: <i>MS</i>	Date <i>4.28.15</i>



RECEIPT 15-0098

City of Boardman
PO Box 229
Boardman, OR, 97818
Phone: (541) 481-9252 Fax: (541) 481-3244

Building PERMIT# M15-049B
JOB LOCATION: 71335 Rail Loop Drive Boardman

04/28/2015

Permit Type	Building	Permit Status	Issued
Work Type	New	Date Issued	04/14/2015
Use Type	Industrial	Date Expiration	10/11/2015
Job Description	MCC Building for Corn Oil Processing	Total Valuation	\$3,200,000.00

Fees

Type	Date Paid	Amount	Paid
Permit Fee New Construction	04/28/2015	\$10,637.90	\$10,637.90
State Fee	04/28/2015	\$1,276.55	\$1,276.55
Plan Review Fee	04/28/2015	\$6,914.64	\$6,914.64
Fire Life Safety Review	04/28/2015	\$4,255.16	\$4,255.16
		\$23,084.25	\$23,084.25

Paid By

Full Name	Main Phone	Address
Pacific Ethanol	(541) 481-2716	400 Capital Mall, Suite 2060 Sacramento, CA 95814

Payment Details

Amount Tendered	Payment Method	Check Number	Comments	Remaining Balance
\$23,084.25	Check	508837		0.0



Oregon

Kate Brown, Governor

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

May 5, 2015

Mr. Lyndon Jones, Plant Manager
Pacific Ethanol Columbia, LLC
71335 Rail Loop Drive
Boardman, OR 97818

Re: Notice of Intent to Construct No. 28147
Standard Air Contaminant Discharge Permit
Permit No. 25-0006
Morrow County

On April 22, 2015 the Department received your *Notice of Intent to Construct* to install a Corn Oil Separation System for your facility located at 71335 Rail Loop Drive in Boardman. Processing of this notice is assigned to Doug Welch in our Pendleton office.

You may proceed with construction/modification on or after May 2, 2015; unless the Department notifies you in writing before that date, that the proposed construction/modification is not a Type I 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
Eastern Region

cc: Doug Welch, DEQ: Pendleton Office/file



NOTICE OF APPROVED CONSTRUCTION COMPLETION

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

NC Application Number:	28147	
Permit Number (if applicable):	25-0006-ST-01	
Company Name:	Pacific Ethanol Columbia, LLC	
Street Address:	71335 Rail Loop Dr.	
City, State, Zip Code:	Boardman, OR 97818	
Contact Person:	Lyndon Jones	
Phone Number:	(541) 945-4999	
Brief description of installed facility/equipment:	A vertical centrifuge, tanks, piping, electrical and controls	
Date construction completed:	10/02/2015	
Date placed in operation:	10/15/2015	
Do you wish to apply for tax credits? (yes/no)	NO	

Signature	
<i>I certify that the information contained in this notice, including any schedules and exhibits attached to the notice, are true and correct to the best of my knowledge and belief.</i>	
Name of official:	Lyndon Jones
Title of official:	Plant Manager
Phone number of official:	(541) 945-4999
Date	12/17/2015
Signature of official	

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 475 NE Bellevue Drive, Suite 110 Bend, OR 97701	Northwest Region, Air Quality 700 NE Multnomah Street, Suite 600 Portland, OR 97232	Western Region, Air Quality 4026 Fairview Industrial Drive Salem, OR 97302



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Eastern Region Bend Office

475 NE Bellevue Dr., Suite 110

Bend, OR 97701

(541) 388-6146

Fax: (541) 388-8283

November 5, 2013

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

Re: Notice of Intent to Construct No. 27535
Standard Air Contaminant Discharge Permit
Permit No. 25-0006
Morrow County

On November 1, 2013 the Department received your *Notice of Intent to Construct* to install a Donaldson-Torit CPV-3 Dust Collector for the control of sugar beet sugar dust emissions for your facility located at 71335 Rail Loop Dr. in Boardman. Processing of this notice is assigned to Doug Welch in our Pendleton office.

You may proceed with construction/modification on or after November 11, 2013; 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
Eastern Region

cc: Doug Welch, DEQ: Pendleton Office/file

RECEIVED

NOV 11 2013

BY: _____



FORM AQ104C
ANSWER SHEET

NOTICE OF APPROVED CONSTRUCTION COMPLETION

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

NC Application Number:	27535
Permit Number (if applicable):	25-0006-ST-01
Company Name:	
Street Address:	
City, State, Zip Code:	
Contact Person:	
Phone Number:	
Brief description of installed facility/equipment:	
Date construction completed:	
Date placed in operation:	

Signature <i>I certify that the information contained in this notice, including any schedules and exhibits attached to the notice, are true and correct to the best of my knowledge and belief.</i>	
Name of official:	
Title of official:	
Phone number of official:	
Date:	
Signature of official:	

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 475 NE Bellevue Dr., Suite 110 Bend, OR 97701	Northwest Region, Air Quality 2020 SW 4 th Avenue, Suite 400 Portland, OR 97201	Western Region, Air Quality 750 Front Street, NE, Suite 120 Salem, OR 97301-1039

Online 'fillable' form at: <http://www.deq.state.or.us/eq/permit/acdp/docs/AQ104C.pdf>



City of Boardman
 PO Box 229
 Boardman, OR, 97818
 Phone: (541) 481-9252 Fax: (541) 481-3244

Building PERMIT# M13-158B
 JOB LOCATION: 71335 Rail Loop Drive Boardman
 JOB DESCRIPTION: Pour 18' x 18' x 24" concrete slab as base for tank.

Permit Type	Building	Permit Status	Issued
Work Type	New	Date Issued	12/02/2013
Use Type	Commercial	Date Expiration	05/31/2014
Constr. Area (Sq Ft)	1.0	Total Valuation	\$29,500.00

Parcels

Parcel Number	Zone	Subdivision	Lot
04N2502-00100-A4			

Contacts

Type	Full Name	Main Phone	Address
Tenant	Pacific Ethanol Columbia, LLC	(541) 481-2716	400 Capital Mall Suite 2060 Sacramento CA 95814
Owner	Port of Morrow	(541) 481-7678	PO Box 200 Boardman OR 97818

Contractors

Type	Name	Main Phone	License	License Exp
Builder	Intermech Inc.	(509) 628-9141	181195	2014-03-24

Fees

Type	Date Paid	Amount	Outstanding
Permit Fee New Construction	12/02/2013	\$250.90	\$0.00
State Fee	12/02/2013	\$30.11	\$0.00
Plan Review Fee	12/02/2013	\$157.91	\$0.00
		\$438.92	\$0.00

Work Items

Type	Quantity	Unit	Value per Unit	Total Value
New Construction	1.0	SQ FT	\$29,500.00	\$29,500.00

Conditions of Issuance

THE OWNERS OF THIS BUILDING AND THE UNDERSIGNED AGREE TO NOTIFY THE BUILDING OFFICIAL OF ANY CHANGES IN PLANS FOR WHICH THIS PERMIT IS REQUESTED.

Owner/Authorized Signature 	Date 12/2/13
Print Name	
Issuing initials: 	Date 12/2/13



LAND USE APPLICATION
ZONING PERMIT

File Number ZP2282 Date Received 11/19/13 Date Deemed Complete 11/21/13 Fee \$250
Applicant / Contractor: Name(s) Pacific Ethanol Columbia, LLC
Mailing Address P O Box 469 Boardman OR 97818
Phone (541) 481-2716 E-mail address ljones@pacificethanol.net

Legal Owner (if different from applicant):
Name(s) Port of Morrow
Address Two Marine Drive Boardman OR 97818

Property Description:
Township 4N Range 2S Section 2 Tax Lot 100 Zoning Designation PI
Physical Address 71335 Rail Loop Dr, Boardman OR 97818

Located within a UGB? No If yes, which city? Legal Access Rail Loop Drive
Subdivision/Partition Lot Width Lot Depth

Size of Parcel 24.85 leased acres Size of Tract
Proposed Set Backs: Front 375 ft Side 607 ft Side 270 ft Rear 862 ft

Proposed Structures: 1. Sugar TANK PAD Sq Ft 324 Bdrms Baths
2. Sq Ft Bdrms Baths
3. Sq Ft Bdrms Baths

Plot Plan: Attach a plot plan showing where on the lot the structures will be located. Identify set backs, existing structures, location of access, septic system, drainfield, and well if applicable. The drawing does not need to be to scale.

Certification: I, the undersigned, acknowledge that I am familiar with the standards and limitations set forth by the Morrow County Zoning and Subdivision Ordinance. I propose to meet all standards set forth by the County's Zoning and Subdivision Ordinance and any applicable State and Federal regulations. I certify that the statements and information provided with this application are true and correct to the best of my knowledge.

Signed: Lyndon Jones (Applicant / Contractor)
Printed: Lyndon Jones (Applicant / Contractor)

Signed: [Signature] (Legal Owner)
Printed: Port of Morrow (Legal Owner)

If this application is not signed by the property owner, a letter authorizing signature by the applicant must be attached.
Planning Approval Signature [Signature] Date 11/25/13

Morrow County Planning Department
P.O. Box 40, Irrigon Oregon 97844
(541) 922-4824 FAX: (541) 922-3472

Distribution: [X] Planning Department - Original [X] Assessor's Office - Copy [X] Building Department
[X] Port of Morrow [] Owner [X] Applicant [X] Building Official

SUBLEASE

THIS SUBLEASE ("**Sublease**"), is made and entered into as of the 27 day of August, 2014 ("**Effective Date**") by and between KODIAK CARBONIC, LLC, a Wyoming limited liability company with an address for notice purposes of 3440 Bell Street, Suite 320 (#330), Amarillo, TX 79109, Attn: Clifford H. Collen ("**Sublessee**"), and PACIFIC ETHANOL COLUMBIA, LLC, a Delaware limited liability company with an address for notice purposes of 400 Capitol Mall, Suite 2060, Sacramento, California 95814 ("**Sublessor**"), with reference to the following facts:

A. Sublessor owns and operates an ethanol processing facility ("**Ethanol Plant**") on certain real property located in Boardman, Oregon ("**Master Parcel**") which Sublessor leases from the Port of Morrow, a municipal corporation of the state of Oregon ("**Master Lessor**"), pursuant to that certain Ground Lease between Sublessor and Master Lessor dated April 20, 2006, as amended October 1, 2006 ("**Master Lease**"). The Master Parcel is more particularly described on Exhibit A-1 attached hereto.

B. Sublessor and Sublessee are parties to that certain Carbon Dioxide Supply Agreement ("**CDSA**") dated on or about the date of this Sublease, pursuant to which Sublessee shall purify, liquefy, refine, solidify and store Carbon Dioxide Gas by-product from the Ethanol Plant.

C. Pursuant to Section 3.1 of the CDSA, Sublessor and Sublessee mutually desire for Sublessor to sublease to Sublessee an approximately three-acre portion of the Master Parcel ("**Premises**") for the construction and operation thereon by Sublessee of a facility for the processing of Carbon Dioxide Gas ("**CO2 Plant**"), on all on the terms and conditions set forth in this Sublease. The approximate location of the Premises is shown on Exhibit A-2 attached hereto; once available, a legal description of the Premises will be substituted for the attached drawing as Exhibit A-2 to this Sublease.

D. Capitalized terms used in this Sublease and not otherwise defined herein shall have the meaning given in the CDSA.

WITNESSETH:

NOW THEREFORE, in consideration of the terms and covenants hereinafter contained, the sufficiency of which is hereby acknowledged by the parties, Sublessor and Sublessee agree as follows:

1. SUBLEASE OF PREMISES

Sublessor hereby declares, creates, and grants to Sublessee, on the terms, covenants and conditions and for the duration set forth herein, a sublease to use and occupy the Premises, on the terms and conditions of this Sublease.

2. TERM

2.1 Term. The term of this Sublease ("**Term**") shall commence on the later of (a) the Effective Date; or (b) the date that Master Lessor consents to this Sublease by executing it in the space provided at the end of this Sublease. The Term shall end fifteen (15) Contract Years after the Commissioning Date, and shall thereafter automatically renew for up to two (2)

additional terms of five Contract Years provided Sublessee does not give Sublessor written notice of termination at least twenty-four (24) months before the then-existing end of the Term; provided, however, that under no circumstances shall the Term extend beyond the expiration or sooner termination of the term of the Master Lease. Sublessee acknowledges that as of the Effective Date, the term of the Master Lease expires on April 30, 2026.

2.2 Extension of Term. In the event that Sublessor exercises any option to renew the term of the Master Lease pursuant to Section 5 of the Master Lease, it shall concurrently provide Sublessee with a copy of the notice delivered to Master Lessor exercising the option. The decision whether or not to exercise any option to renew the term of the Master Lease shall be at Sublessor's sole discretion, and Sublessor shall have no obligation to Sublessee to exercise any such option.

2.3 Delivery of Possession. Sublessor shall deliver possession of the Premises to Sublessee at the commencement of the Term.

2.4 Termination of CDSA. If the CDSA terminates because for any reason other than a breach of the CDSA by the Seller thereunder, then this Sublease shall terminate concurrently therewith.

2.5 Holding Over. Sublessee shall vacate the Premises upon the expiration or earlier termination of this Sublease, subject only to the license (if any) provided in Section 11 for restoration of the Premises to the Surrender Condition or the selling of the improvements on the Premises. Sublessee shall reimburse Sublessor for and indemnify Sublessor against all damages which Sublessor incurs from Sublessee's improper delay in vacating the Premises. If Sublessee does not vacate the Premises upon the expiration or earlier termination of the Sublease and Sublessor thereafter accepts rent from Sublessee, Sublessee's occupancy of the Premises shall be a "month-to-month" tenancy, subject to all of the terms of this Sublease applicable to a month-to-month tenancy at one hundred twenty-five percent (125%) of the Sublease Rent in effect at the end of the Term.

3. SUBLEASE RENT

3.1 Calculation. On the first day of the Term and the first day of each calendar month thereafter during the Term, Sublessee shall pay Sublessor monthly rent equal to the rent due from Sublessor to Master Lessor under the Master Lease multiplied by a fraction, the numerator of which is the acreage of the Premises (rounded to the nearest tenth of an acre) and the denominator is the acreage of the Master Parcel ("**Sublease Rent**"). Sublease Rent shall be paid in advance and without deduction or offset. Sublease Rent for any partial month shall be pro-rated. The current per-acre monthly rent under the Master Lease is \$277.44 per month. Sublessee acknowledges that the Master Lease provides for an increase in the rent due thereunder on May 1, 2016 and every five years thereafter during the term of the Master Lease.

3.2 Late Charges. Sublessee's failure to timely pay Sublease Rent may cause Sublessor to incur unanticipated costs. The exact amount of such costs are impractical or extremely difficult to ascertain. Such costs may include, but are not limited to, processing and accounting charges and late charges which may be imposed on Sublessor pursuant to the Master Lease or pursuant to any ground lease, mortgage or trust deed encumbering the Master Parcel. Therefore, if Sublessor does not receive any Sublease Rent payment within ten (10) days after it becomes due, Sublessee shall pay Sublessor a late charge of five percent (5%) of the amount due

or \$100, whichever is more. The parties agree that such late charge represents a fair and reasonable estimate of the costs Sublessor will incur by reason of such late payment.

3.3 Interest on Past Due Obligations. Any amount owed by Sublessee to Sublessor which is not paid when due shall bear interest per annum from the due date of such amount at a rate equal to the greater of: (a) the rate imposed upon Sublessor for late payment of Rent under the Master Lease; or (b) twelve percent (12%); however, interest shall not be payable on late charges to be paid by Sublessee under this Sublease. The payment of interest on such amounts shall not excuse or cure any default by Sublessee under this Sublease. If the interest rate specified in this Sublease is higher than the rate permitted by law, the interest rate is hereby decreased to the maximum legal interest rate permitted by law.

4. USE OF THE PREMISES

4.1 Permitted Use. Subject to the terms and conditions hereof, Sublessor agrees that Sublessee, having paid the Sublease Rent and duly performed all of the obligations contained herein upon the part of the Sublessee to be performed, shall peaceably and quietly have, hold, use and enjoy the Premises during the full term of this Sublease only for: (i) the construction, maintenance and operation of the CO2 Plant, parking of vehicles, construction and maintenance of a rail spur serving the CO2 Plant and any and all other activities reasonably related thereto, and (ii) for such other uses as are approved by Sublessor in writing, which approval may be granted or withheld at Sublessor's discretion. Sublessee shall not cause or permit the Premises or the Master Parcel to be used in any way which constitutes a violation of any law, ordinance or governmental regulation or order, or which constitutes a nuisance or waste, or which constitutes a violation or breach of the Master Lease. Sublessee shall promptly take all actions necessary to comply with all applicable statutes, ordinances, rules, regulations, orders and requirements regulating the use by Sublessee of the Premises.

4.2 Compliance with Master Lease. Except as specifically provided to the contrary in this Sublease, this Sublease and Sublessee's rights and obligations hereunder are subject to all of the terms and conditions of the Master Lease, as the Master Lease may be amended from time to time, provided such amendment shall not materially affect Sublessee's rights or obligations without Sublessee's written consent and Sublessee is given written notice of such amendment. Except as specifically provided to the contrary in this Sublease, Sublessee assumes and agrees to be bound by and perform all the non-monetary obligations of the Master Lease as if: (a) Sublessor was the "Port" and Sublessee was the "Tenant" under the Master Lease; (b) the permitted use hereunder is the permitted use under the Master Lease; and (c) the Premises was the "Premises" and the CO2 Plant was the "Project" under the Master Lease. Sublessee acknowledges receipt of a complete copy of the Master Lease. Sublessor shall promptly provide Sublessee with a copy of any amendments or alterations of the Master Lease occurring after the date of this Sublease.

4.3 Utilities. Except as otherwise expressly provided in the CDSA, Sublessee shall pay, directly to the appropriate supplier, the cost of all natural gas, heat, light, power, sewer service, telephone, water, refuse disposal and other utilities and services supplied to the Premises. Sublessor shall provide access to the Premises across the Master Parcel for such utilities.

4.4 Rules and Regulations. Sublessee shall, at its sole cost, comply with any reasonable rules and regulations promulgated or amended from time to time by Sublessor or

Master Lessor with respect to use of the Master Parcel and any other shared facilities such as parking, entranceways, access routes, railway facilities and similar facilities, a copy of which shall be provided to Sublessee. Sublessee shall take such actions as may be reasonably necessary or appropriate to avoid any material disruption of Sublessor's use or operation of the Ethanol Plant. Sublessor shall take such actions as may be reasonably necessary or appropriate to avoid any material disruption of Sublessee's use or operation of the CO2 Plant. Sublessor shall at all times maintain driveways and other means of access to and on the Master Parcel in such passable and other condition as is necessary for Sublessee to have reasonable access to the Premises and to the area known as Buyer's Plant under the CDSA.

4.5 Safety and Security. Sublessor shall provide reasonable security for the Master Parcel, including the Premises. Sublessee shall have the right to construct and operate security precautions on the Premises as deemed necessary by Sublessee in its reasonable discretion, including without limitation fencing and/or a security or surveillance system. The parties will advise each other promptly upon observing any damage to the CO2 Plant or the Ethanol Plant, or any suspicious activity on or around the Master Parcel.

4.6 Sublessor's Access. Sublessor or its agents may enter the Premises at all reasonable times for the purpose of determining compliance with the terms and conditions of this Sublease or for any other purpose incidental to the rights of Sublessor. Sublessor shall give Sublessee reasonable prior notice of such entry except in the case of an emergency.

4.7 Sublessee's Access. If the Premises do not abut a public road, then Sublessee and its employees, contractors, agents, financing parties and designees shall have the right of pedestrian and vehicular access across the remainder of the Master Parcel to and from a public road as reasonably necessary for the permitted uses hereunder. Access shall be 24 hours a day, 365 days a year.

4.8 License to Enter. Sublessee shall have a non-exclusive license to enter onto the portion of the Master Parcel outside the Premises (including the Ethanol Plant) for the purposes set forth in the CDSA or as may be necessary for Sublessee to perform its rights and obligations under the CDSA. Sublessee shall indemnify, defend and hold Sublessor harmless from and against any claims, losses, damages, liabilities, costs or expenses (including reasonable legal fees and costs) arising out of any entry onto the Master Parcel pursuant to this Section 4.8, except to the extent arising out of the gross negligence or willful misconduct of Sublessor or its agents.

5. CONDITION OF PREMISES; IMPROVEMENTS AND REPAIRS

5.1 As-Is Condition. Except for the representations and warranties expressly set forth in this Sublease and the CDSA: (a) Sublessee accepts the Premises in its condition as of the execution of this Sublease, "AS-IS" WITH ALL FAULTS, subject to all recorded matters, laws, ordinances and governmental regulations and orders, and free of all warranties and representations of any kind, whether express or implied, patent or latent; (b) Sublessor expressly disclaims all express or implied warranties with respect thereto, including without limitation any warranty regarding the suitability of the Premises for Sublessee's intended use; and (c) Sublessee represents that Sublessee has made its own inspection of and inquiry regarding the condition of the Premises and is not relying on any representations of Sublessor or Master Lessor with respect thereto. Notwithstanding Section 4.2 and without limiting the generality of the foregoing, the

representations and warranties of Master Lessor pursuant to Sections 8 and 15 of the Master Lease specifically are not incorporated herein as if made by Sublessor; but Sublessor represents that (without any duty to investigate) that it knows of no present violation of the representations and warranties contained in Sections 8 and 15 of the Master Lease.

5.2 Improvements by Sublessee. All improvements to the Premises shall be at Sublessee's sole cost and expense, including without limitation any utility service upgrades and any modifications of the Premises needed to comply with applicable laws, rules and regulations. Sublessee shall provide detailed plans and specifications for the CO2 Plant and any other material improvements and alterations to Sublessor and Master Lessor prior to commencing construction, for review and approval by Sublessor and Master Lessor, such approval not to be unreasonably withheld, conditioned or delayed. "Material improvements and alterations" means any reasonably related improvements or alterations with a cumulative cost in excess of \$500,000 to complete and excludes common, day-to-day replacements or parts or equipment or simple modifications that do not materially affect the operation of the CO2 Plant. All alterations, additions and improvements shall be new, constructed in a first class manner, in conformity with all applicable laws and regulations and made by contractors licensed in the state of Oregon. Sublessor or Master Lessor may require Sublessee to provide demolition and/or lien and completion bonds in a satisfactory form and amount.

5.3 Ownership of Improvements. All improvements to the Premises or the property known as Buyer's Plant under the CDSA, including all fixtures, personal property, trade fixtures and equipment shall remain the property of Sublessee, whether or not affixed to the real property. Sublessee shall have the right to any insurance proceeds arising from the destruction of improvements to the Premises made by Sublessee. The parties agree that the CO2 Plant is personal property and shall not attach or be deemed to be part of the Premises, the Master Parcel or the Ethanol Plant. Sublessor covenants that it will use commercially reasonable efforts to notify all persons having an interest in or a lien on the Master Parcel (other than Master Lessor, which is so notified by receipt of a copy of this Sublease) of the ownership of the CO2 Plant and the parties' agreement as to the legal status or classification of the CO2 Plant as personal property, but makes no representation or warranty that any third party shall respect, honor or be bound by the parties' classification. Sublessor shall reasonably cooperate with Sublessee at no out-of-pocket cost to Sublessor in making any filings deemed necessary by Sublessee's legal counsel to disclaim the CO2 Plant as a fixture.

5.4 Permits. Except as set forth in Section 3.7 of the CDSA, Sublessee shall be solely responsible for obtaining any and all permits required for Sublessee's improvement, alteration and occupancy of the Premises and shall pursue all such permits with commercially reasonable due diligence. Sublessor shall reasonably cooperate with Sublessee at no out-of-pocket cost to Sublessor in any land use or other permit applications, including execution of any applications if requested by Sublessee.

5.5 Repairs and Maintenance. Sublessee may remove any improvements placed by Sublessee on the Premises at any time during the Term, provided that Sublessee repairs any damage to the Master Parcel or the Ethanol Plant caused by such removal, at Sublessee's expense. During the Term, Sublessee shall, at its own cost and expense, perform all normal day-to-day maintenance so as to keep the Premises in a clean, safe and well maintained condition, and shall operate the Premises in all material respects as required by law. Neither Sublessor nor Master Lessor shall have any responsibility whatsoever to repair, maintain or replace any portion of the Premises or the improvements thereon.

5.6 No Liens. Sublessee shall keep the interests of Sublessor and Master Lessor in the Master Parcel (including the Premises) free from liens arising from labor and material furnished to the Premises on behalf of Sublessee and shall pay when due all claims for labor and material furnished to the Premises. Except for work undertaken with the consent of Sublessor, Sublessee shall give Sublessor and Master Lessor at least twenty (20) days' prior written notice of the commencement of any work on the Premises. Sublessor and Master Lessor may elect to record and post notices of non-responsibility on the Premises, regardless of whether the consent of Sublessor or Master Lessor to such work is provided. If Tenant fails to pay such claims or discharge any lien, Sublessor may do so and collect the cost as additional rent. Subject to Section 16 below, Sublessor shall not directly or indirectly cause, create, incur, assume or suffer to exist any liens on or with respect to the interests of Sublessee in the Premises, the CO2 Plant or this Sublease. Notwithstanding the forgoing, Sublessor and Master Lessor consent to Sublessee obtaining Industrial Revenue Bonds for the CO2 Plant and the placement of restrictions on the Premises as may be outlined in the Industrial Revenue Bonds, provided that no restrictions shall apply outside the boundaries of the Premises and no lien shall attach to the interests of either Master Lessor or Sublessor in the Master Parcel. In addition, Sublessee may encumber the CO2 Plant or other improvements and personal property located on the Premises.

6. TAXES

6.1 Real Property Taxes. Sublessee shall pay Sublessor for all taxes and assessments levied against the Premises or any improvements thereto by Tenant. Sublessee's pro rata share of all taxes and assessments assessed against the land (as opposed to any improvements) shall be based on a ratio of the acreage of the Premises to the acreage of the Master Parcel (including the Premises). Sublessee's payments under this Section 6.1 shall be made no later than ten (10) days before payment of the tax or assessment is due and shall be considered additional rent hereunder.

6.2 Personal Property Taxes. Sublessee shall pay, before the same becomes delinquent, any and all taxes levied or assessed against all personal property owned by it and located on the Premises.

7. INDEMNITY

7.1 By Sublessee. Sublessee shall defend, indemnify Sublessor against and hold Sublessor harmless from any and all damages, liabilities or losses directly or indirectly incurred, suffered or asserted against Sublessor (regardless of whether or not such damages, liabilities or losses relate to any third party claim) arising out of: (a) Sublessee's use of the Premises or the Master Parcel; (b) the conduct of Sublessee's business or anything else done or permitted by Sublessee to be done in or about the Premises; (c) any breach or default in the performance of Sublessee's obligations under this Sublease; (d) any misrepresentation or breach of warranty by Sublessee under this Sublease; or (e) other acts or omissions of Sublessee; all without limitation as to amount. Sublessee shall defend Sublessor against any such cost, claim or liability at Sublessee's expense with counsel reasonably acceptable to Sublessor. As used in this Section, the term "Sublessee" shall include Sublessee's employees, agents, contractors and invitees, if applicable. Sublessee's obligations pursuant to this Section shall survive the expiration or sooner termination of this Sublease for a period of two (2) years.

7.2 By Sublessor. Sublessor shall defend, indemnify Sublessee against and hold Sublessee harmless from any and all damages, liabilities or losses directly or indirectly

incurred, suffered or asserted against Sublessee (regardless of whether or not such damages, liabilities or losses relate to any third party claim) arising out of: (a) Sublessor's use of the Master Parcel outside the boundaries of the Premises; (b) the conduct of Sublessor's business or anything else done or permitted by Sublessor to be done in or about the Master Parcel; (c) any breach or default in the performance of Sublessor's obligations under this Sublease or the Master Lease; (d) any misrepresentation or breach of warranty by Sublessor under this Sublease or the Master Lease; or (e) other acts or omissions of Sublessor; all without limitation as to amount. Sublessor shall defend Sublessee against any such cost, claim or liability at Sublessor's expense with counsel reasonably acceptable to Sublessee. As used in this Section, the term "Sublessor" shall include Sublessor's employees, agents, contractors and invitees, if applicable. Sublessor's obligations pursuant to this Section shall survive the expiration or sooner termination of this Sublease for a period of two (2) years.

7.3 Limitation of Damages. IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES IN ANY WAY ARISING FROM, OUT OF, OR IN CONNECTION WITH THIS SUBLEASE OR THE MASTER LEASE, INCLUDING LOSS OF USE OR LOSS OF PROFITS, WHETHER IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE AND WHETHER OR NOT DUE TO THE NEGLIGENCE, GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF A PARTY, OR THE PARTIES, HERETO. IF, HOWEVER, ANY PARTY IS HELD LIABLE TO A THIRD PARTY FOR ANY DAMAGES WHICH ARE WITHIN THE SCOPE OF ANY INDEMNITY GIVEN BY ANOTHER PARTY UNDER THIS AGREEMENT, THE PARTY OBLIGATED UNDER THE APPLICABLE INDEMNITY WILL BE LIABLE FOR SUCH DAMAGES AND THE LIMITATIONS OF THIS SECTION SHALL NOT APPLY TO THIRD PARTY DAMAGES.

8. INSURANCE

8.1 Requirements. During the Term, Sublessee shall procure and maintain in full force and effect, at Sublessee's expense, the following insurance policies:

8.1.1 Automobile Liability. Automobile liability insurance with limits of not less than two million dollars (\$2,000,000) per occurrence and two million dollars (\$2,000,000) in the aggregate for bodily injury, and four million dollars (\$4,000,000) in the aggregate for property damage, covering all vehicles whether owned, non-owned or hired, used in connection with Buyer's activities on or around the Lease Area.

8.1.2 Comprehensive General Liability. Comprehensive general liability insurance for Sublessee's operations, with limits of not less than two million dollars (\$2,000,000) per occurrence, four million dollars (\$4,000,000) in the aggregate, and including pollution coverage.

8.1.3 Property Insurance. Insurance covering loss of or damage to the Premises, the CO2 Plant and Sublessee's improvements and personal property thereon, in the full amount of its replacement value.

8.1.4 Other Requirements. All liability policies shall name Sublessor and the Port of Morrow as additional insureds, as their interests may appear. Liability policy limits can be obtained through either primary insurance or a combination of primary and excess or umbrella coverage. Sublessee shall provide Sublessor with not less than thirty (30) days' written notice prior to any cancellation or material adverse amendment of any policy required hereby. All insurance brokers and carriers are of the insured's choice, provided that all insurers shall be authorized to issue insurance in the State of Oregon and have an A.M. Best's Rating of A- or better and Class VII or better, or any more stringent rating if required by the Master Lease.

8.2 Workers Compensation Insurance. Each party warrants to the other that all of its employees that work on the Lease Area will at all times be covered as required by law by workers' compensation and unemployment compensation insurance.

8.3 Waiver of Subrogation. Sublessor and Sublessee each hereby waive any and all rights of recovery against the other, or against the officers, employees, agents or representatives of the other, for loss or damage covered by any insurance policy in force (whether or not described in this Sublease) or required to be in force at the time of such loss or damage. Sublessor and Sublessee shall cause their respective insurance carriers to waive any right to subrogation that the carriers may have against Sublessor, Sublessee or Master Lessor, as the case may be.

8.4 Contractors of Sublessee. Any and all contractors and subcontractors performing work on the Master Parcel on behalf of Sublessee shall at all times during such work maintain automobile liability, comprehensive general liability and workers compensation insurance meeting the requirements of this Sublease and naming Sublessor and Master Lessor as additional insureds. Sublessee shall provide Sublessor with proof of the required insurance prior to any entry onto the Master Parcel by any contractor or subcontractor.

9. ASSIGNMENT AND SUBLETTING

9.1 Consent Required; Exceptions. Sublessee shall not voluntarily or by operation of law assign, transfer, convey, or encumber this Sublease or any interest therein, sublease the Premises, or otherwise permit any occupancy of the Premises by any third party, in whole or in part, without first obtaining the written consent of Sublessor and Master Lessor, which consent shall not be unreasonably withheld, conditioned or delayed; provided, however, that the consent of Sublessor and Master Lessor shall not be required to mortgage, hypothecate or encumber Sublessee's interest in this Sublease as security for a debt, provided that Sublessee complies with Section 18(A) of the Master Lease and Section 5.6 of this Sublease (if applicable). Any transfer of Sublessee's interest in this Sublease or in the Premises arising by merger, consolidation, dissolution or liquidation of Sublessee shall constitute an assignment within the scope of this Section 9.1. Any transfer must comply with Section 17 of the Master Lease. Sublessee shall reimburse Sublessor and Master Lessor upon demand for their reasonable costs incurred in connection with any request for consent, including reasonable attorney fees.

9.2 Other Provisions. No transfer permitted by this Section 9 shall release Sublessee or change Sublessee's primary liability to pay the Sublease Rent and to perform all other obligations of Sublessee under this Sublease. Sublessor's acceptance of Sublease Rent from any third party is not a waiver of any provision of this Section. Consent to one transfer is not a consent to any subsequent transfer. If Sublessee's transferee defaults under this Sublease,

Sublessor may proceed directly against Sublessee without pursuing remedies against the transferee. Sublessor may consent to subsequent assignments or modifications of this Sublease by Sublessee's transferee, without notifying Sublessee or obtaining its consent, and such action shall not relieve Sublessee's liability under this Sublease.

10. DEFAULT

10.1 Sublessee's Defaults. Sublessee shall be in material default under this Sublease:

- (a) If Sublessee abandons the Premises or if Sublessee's vacation of the Premises results in the cancellation of any insurance required hereunder;
- (b) If Sublessee fails to pay Sublease Rent or any other charge within ten (10) days after payment is due;
- (c) If Sublessee fails to continuously use the Premises for a period of ninety (90) days or more;
- (d) If Sublessee fails to perform any of Sublessee's nonmonetary obligations under this Sublease for a period of thirty (30) days after written notice from Sublessor; or
- (e) the Buyer is in default of the CDSA beyond any time for cure set forth therein.

10.2 Sublessor's Remedies. On the occurrence of any material default by Sublessee, Sublessor may, at any time thereafter, with or without notice or demand and without limiting Sublessor in the exercise of any right or remedy which Sublessor may have:

- (a) Terminate Sublessee's right to possession of the Premises by any lawful means, in which case this Sublease shall terminate and Sublessee shall immediately surrender possession of the Premises to Sublessor. In such event, Sublessor shall be entitled to recover from Sublessee all reasonable damages incurred by Sublessor by reason of Sublessee's default, including (i) the unpaid Sublease Rent and other charges which Sublessor had earned at the time of the termination; (ii) the amount by which the unpaid Sublease Rent and other charges which Sublessor would have earned after termination until the time of the award exceeds the amount of such rental loss that Sublessee proves Sublessor could have reasonably avoided; (iii) the worth at the time of the award of the amount by which the unpaid Sublease Rent and other charges which Sublessee would have paid for the balance of the Term after the time of award exceeds the amount of such rental loss that Sublessee proves Sublessor could have reasonably avoided; and (iv) any other amount necessary to compensate Sublessor for all the detriment proximately caused by Sublessee's failure to perform its obligations under the Sublease or which in the ordinary course of things would be likely to result therefrom, including, but not limited to, any costs or expenses Sublessor incurs in maintaining or preserving the Premises after such default, the cost of recovering possession of the Premises, expenses of reletting, the cost of renovation or alteration of the Premises, Sublessor's reasonable attorney fees incurred in connection therewith and any real estate commission paid or payable. As used in subpart (iii) above, the "worth at the time of the

award" is computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of the award, plus two percent (2%).

(b) Maintain Sublessee's right to possession, in which case this Sublease shall continue in effect whether or not Sublessee has abandoned the Premises. In such event, Sublessor shall be entitled to enforce all of Sublessor's rights and remedies under this Sublease, including the right to recover the Sublease Rent as it becomes due. In the event Sublessor reenters the Premises or regains possession of the Premises hereunder or due to abandonment by Sublessee, Sublessor shall not be deemed to have terminated this Sublease unless Sublessor shall have expressly notified Sublessee in writing of such termination.

(c) Pursue any other remedy now or hereafter available to Sublessor at law or equity.

10.3 Lender Protection. If Sublessee has mortgaged, pledged or hypothecated its interest in this Sublease as security for a debt, and written notice thereof has been provided to Sublessor including a contact name and address for the secured party, then such secured party shall have the rights and protections of a "Mortgagee" pursuant to Section 18 of the Master Lease, as applied to this Sublease.

10.4 Default by Sublessor. If Sublessor shall default in any of the terms, covenants or conditions of this Sublease, and said default continues for a period of thirty (30) days after written notice thereof, then Sublessee shall be entitled exercise any rights or remedy now or hereafter available to Sublessee at law or equity including the right to perform the obligations of Sublessor, at Sublessor's expense, which expense shall be reimbursed to Sublessee within ten (10) days of demand therefor or maybe offset against the Sublease Rent. A default by the Seller under the CDSA beyond any time for cure set forth therein shall be a default of Sublessor under this Sublease.

10.5 Default by Sublessor under Master Lease. By its consent to this Sublease, Master Lessor agrees to copy Sublessee on any notice of default to Sublessor under the Master Lease as provided in Section 14. Sublessee shall have the right to cure any default of Sublessor under the Master Lease within the applicable cure period, provided that Sublessee shall give reasonable prior notice of its intention to cure the default to Sublessor unless such notice would be impractical because the applicable cure period is about to expire. Sublessee may offset the cost of cure of any default of Sublessor under the Master Lease against Sublease Rent due hereunder, or at Sublessee's option Sublessee may submit an invoice of such costs to Sublessor and Sublessor shall reimburse Sublessee within ten (10) days of receipt of the invoice. In the event that Sublessor's default under the Master Lease is not capable of being cured by Sublessee, then Master Lessor hereby agrees that, if and for so long as (i) Sublessee is not in default under this Sublease beyond any applicable cure period; and (ii) Sublessee attorns to Master Lessor; Master Lessor shall upon termination of the Master Lease recognize this Sublease as a direct lease of the Premises from Master Lessor for the remainder of the Term hereof, but excluding any rights to renew the Term pursuant to Section 5 of the Master Lease.

10.6 Cumulative Remedies. The exercise of any right or remedy hereunder shall not prevent a party from exercising any other right or remedy.

11. TERMINATION

Upon the expiration or termination of the Sublease for any reason, Sublessee shall surrender the Premises to Sublessor. If the Sublease expires on the last day of the then-existing Term, the Premises shall be surrendered in the condition required by the Master Lease, with all of Sublessee's personal property, trade fixtures and improvements removed therefrom and specifically including without limitation restoration of the environmental condition of the Premises to the same condition as received at the start of the Term, which shall be evidenced by a Phase I Environmental Assessment of the Premises at Sublessee's cost and certified to Sublessor after restoration of the Premises (the "**Surrender Condition**"). Otherwise, Sublessee shall have a license for one (1) year after termination to enter onto the Premises or the Master Parcel to remove its personal property, trade fixtures and improvements and to restore the Premises to the Surrender Condition, during which time the indemnification and insurance obligations of Sublessee under this Sublease shall continue to apply. The cost of restoring the Premises to the Surrender Condition shall be the sole responsibility of Sublessee unless this Sublease has terminated pursuant to Section 13.4 of the CDSA, in which case the restoration costs shall be paid by Sublessor. All alterations, additions and improvements which Sublessee fails to remove as required by this Section 11 shall become the property of Sublessor, subject to Master Lessor's rights (if any) under Section 11(C) of the Master Lease.

12. ATTORNEY'S FEES

If any action for breach of or to enforce the provisions of this Sublease is commenced, the prevailing party shall be entitled to recover from the losing party the prevailing party's reasonable attorney fees and costs incurred in such action, at trial or on any appeal.

13. HAZARDOUS MATERIALS

13.1 Obligations. During the Term, Sublessee and Sublessor shall comply with and be subject to all provisions of Section 23 of the Master Lease regarding Hazardous Materials (as that term is defined in the Master Lease).

13.2 Indemnity by Sublessee. Sublessee shall indemnify, defend and hold Sublessor and Master Lessor harmless from any and all actions, claims, losses damages, liabilities and expenses (including clean-up costs, governmental penalties and reasonable expert and attorneys fees) incurred by Sublessor or Master Lessor which arise from the violation of Section 13.1, or the presence of Hazardous Material in the surface water, or soil or groundwater at or under the Premises resulting from the acts or omissions of Sublessee or persons on the Premises with Sublessee's permission.

13.3 Indemnity by Sublessor. Sublessor shall indemnify, defend and hold Sublessee harmless from any and all actions, claims, losses damages, liabilities and expenses (including clean-up costs, governmental penalties and reasonable expert and attorneys fees) incurred by Sublessee which arise from the violation of Section 13.1, or the presence of Hazardous Material in the surface water, or soil or groundwater at or under the Premises resulting from the acts or omissions of Sublessor or persons on the Premises with Sublessor's permission (excluding Sublessee and its agents).

13.4 Survival. The provisions of this Section 13 shall survive the expiration or termination of this Sublease.

14. NOTICES

Any and all notices or demands which shall be required or permitted by law or pursuant to any of the provisions of this Sublease shall be in writing and shall be either personally delivered or shall be deposited in the United States Mail, Certified Mail Return Receipt Requested, postage prepaid, addressed to the receiving party at the address first set forth above, or at such other address as each party may from time to time designate by notice in writing to the other party. A copy of any notice to Sublessor shall also be delivered to: (a) Pacific Ethanol, Inc., Attn: General Counsel, 400 Capitol Mall, Suite 2060, Sacramento, CA 95814, which may be delivered by fax at 916-403-2785; and (b) Master Lessor as provided in Section 24(H) of the Master Lease. A copy of any notice to Sublessee shall also be delivered to the registered office of Motschenbacher & Blattner, LLP as indicated on the records of the Oregon Secretary of State.

15. ESTOPPEL CERTIFICATES

Upon request by either party, the party receiving the request shall within ten (10) days execute, acknowledge, and deliver to the other party an estoppel certificate containing the information reasonably required by the requesting party. Failure to timely furnish an estoppel certificate upon request shall be conclusive evidence that this Sublease is in full force and effect without modification except as may be represented by the requesting party, that there are no uncured defaults except as may be represented by the requesting party, and that not more than one month's Sublease Rent has been paid in advance.

16. SUBORDINATION AND ATTORNMENT

16.1 Subordination to Existing Rights and Liens. This Sublease shall be subordinate to: (i) the Master Lease; and (ii) any and all liens and encumbrances of record with respect to the Master Parcel as of the Effective Date. If requested by Sublessee, Sublessor shall use commercially reasonable efforts, at no out-of-pocket cost to Sublessor to obtain subordination, non-disturbance or other agreements desired by Sublessee from the holders of any existing liens and encumbrances, but Sublessor makes no representation or warranty that any such agreement can or will be obtained.

16.2 Subordination to Future Liens. This Sublease shall be subordinate to any and all deeds of trust, mortgages or other financial liens first placed on Sublessor's interest in the Master Parcel, the Ethanol Plant or this Sublease after the date of this Sublease, provided that: (a) such security interest shall not attach to Sublessee's interest in the CO2 Plant or this Sublease; (b) the secured party specifically acknowledges in writing the CDSA and this Sublease, including the personal property nature of the CO2 Plant as described in Section 5.3; and (c) the secured party agrees not to disturb Sublessee's use and possession of the Premises so long as Sublessee is not in default of the CDSA or this Sublease.

16.3 Subordination to Sublease. If any senior secured party shall elect to have this Sublease prior to the lien of its security interest, then this Sublease shall be deemed senior to such lien.

16.4 Attornment. If Sublessor's interest in the Master Parcel is transferred or is acquired by any ground lessor, beneficiary under a deed of trust, mortgagee or purchaser at a foreclosure sale, Sublessee shall attorn to the transferee of or successor to Sublessor's interest in the Master Parcel and recognize such transferee or successor as Sublessor under this Sublease,

and Sublessor shall have no liability under this Sublease for events first occurring after the effective date of such transfer or acquisition.

16.5 Refinancing by Sublessor. If Sublessor desires to finance or refinance its interest in the Master Parcel, Sublessee shall upon request deliver to the proposed secured party any financial statements or other information regarding Sublessee as may reasonably be required by the secured party.

17. MISCELLANEOUS

17.1 Condemnation. If all or any material part of the Premises or this Sublease is taken by condemnation or conveyed under a threat of condemnation, then this Sublease shall automatically terminate as of the earlier of the date title vests in the condemning authority or the condemning authority first takes possession of the Premises, provided, however, if enough of the Premises remains for Sublessee to continue to conduct its business and the Master Lease has not terminated due to the condemnation, then Sublessee, at its option, may elect to continue the Sublease with Sublease Rent reduced by the percentage of the Premises so taken. All proceeds from the taking related to any improvements installed by Sublessee or Sublessee's personal property or which may be awarded for Sublessee's business interruption and/or relocation costs shall belong to Sublessee. Sublessee waives any and all claims to any portion of such proceeds related to the land, including but not limited to any claim related to any value of the subleasehold or unexpired Term of this Sublease.

17.2 Further Assurances. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Sublease and the consummation of the transactions contemplated hereby.

17.3 Force Majeure. If a Force Majeure, as defined in the CDSA, prevents or delays the performance of any obligation by either party hereunder, then the time for performance shall be extended for the period that the action is prevented or delayed by such cause in the same manner as provided in the CDSA, except that under no circumstances shall a force majeure event excuse the payment of Sublease Rent.

17.4 Complete Agreement. The CDSA and this Sublease (including the Master Lease to the extent incorporated herein) constitutes the entire agreement between Sublessor and Sublessee and there are no terms, obligations or conditions with respect to the sublease of the Premises other than those contained herein.

17.5 Interpretation. In all cases the language of this Sublease shall be construed according to its fair meaning and without regard to the party that drafted this Sublease or the specific language in question.

17.6 Waivers. Any waiver of any term, condition, covenant or provision of this Sublease must be in writing and signed by the waiving party. Sublessor's failure to enforce any provision of this Sublease or its acceptance of Sublease Rent shall not be a waiver and shall not prevent Sublessor from enforcing that provision or any other provision of this Sublease in the future.

17.7 No Recordation. Sublessee shall not record this Sublease without prior written consent from Sublessor. However, either party may require that a "short-form" memorandum of this Sublease executed by both parties be recorded. The party requiring such recording shall pay all applicable taxes and fees.

17.8 Binding Effect. The terms and conditions of this Sublease shall be binding upon and shall be enforceable by the Sublessor and the Sublessee and their respective successors and assigns.

17.9 Severability. If any one or more of the provisions contained in this Sublease shall be invalid, illegal or unenforceable in any respect under any applicable law, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired.

17.10 Amendment. This Sublease shall not be amended, altered or changed except by a written agreement signed by both parties.

17.11 Applicable Law. This Sublease shall be governed by and construed in accordance with the laws of the state of Oregon.

17.12 Time of Essence. Time is of the essence in this Sublease and each and all of its provisions.

17.13 Counterparts. This Sublease may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Sublease as of the day and year first above written.

Sublessee:

KODIAK CARBONIC, LLC, a Wyoming limited liability company

BY: 

NAME: CLIFFORD H. COLLEN

TITLE: PRESIDENT

Sublessor:

PACIFIC ETHANOL COLUMBIA LLC, a Delaware limited liability company

BY: 

NAME: Bryon McGregor

TITLE: CFO

Master Lessor hereby consents to this Sublease as required by Section 17(A) of the Master Lease, and agrees to the terms of Section 10.5 hereof as they apply to Master Lessor.

PORT OF MORROW

BY: *Gary Neal*

NAME: *Gary Neal*

TITLE: *General Manager*

9-12-14

Master Lessor hereby consents to this Sublease as required by Section 17(A) of the Master Lease, and agrees to the terms of Section 10.5 hereof as they apply to Master Lessor.

PORT OF MORROW

BY: _____

NAME: _____

TITLE: _____

Master Lessor hereby consents to this Sublease as required by Section 17(A) of the Master Lease, and agrees to the terms of Section 10.5 hereof as they apply to Master Lessor.

PORT OF MORROW

BY: _____

NAME: _____

TITLE: _____

Master Lessor hereby consents to this Sublease as required by Section 17(A) of the Master Lease, and agrees to the terms of Section 10.5 hereof as they apply to Master Lessor.

PORT OF MORROW

BY: _____

NAME: _____

TITLE: _____

EXHIBIT A-1

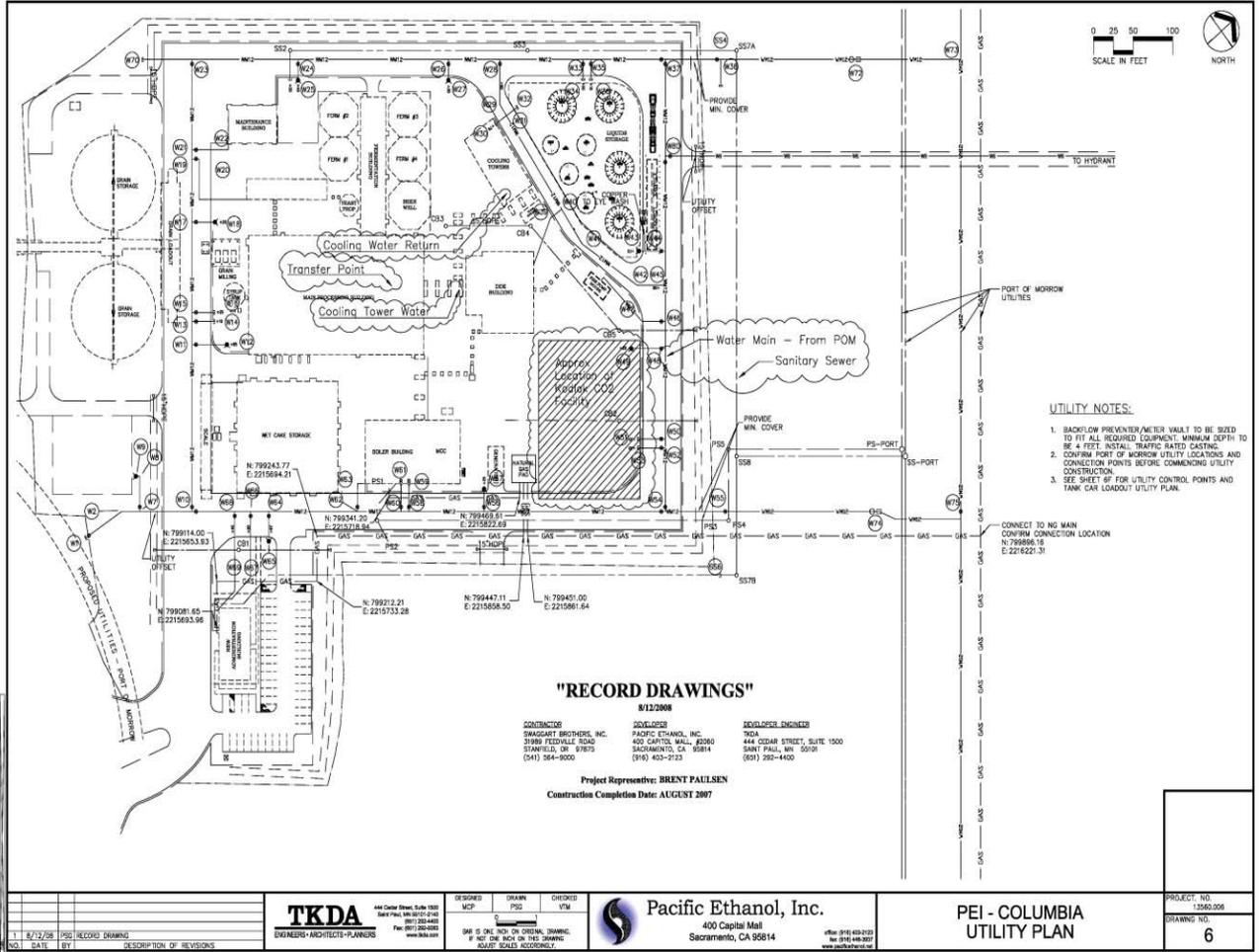
LEGAL DESCRIPTION OF MASTER PARCEL

A 24.85 Acre portion, more or less, for the development of an Ethanol Facility, located in Section 2, Township 4 North, Range 25, East of the Willamette Meridian located within Morrow County, Oregon, more particularly described as follows:

Beginning at a Point on the North Right of Way line of Center Loop Drive being North 04° 45' 10" West a distance of 1666.80 feet from the South Quarter Corner of Section 2, in Township 4 North, Range 25 East; Thence Northwesterly along the North Right of Way of said Center Loop Drive, along a 530.26 foot curve to the Left, said curve having a radius of 470.00 feet, an internal angle of 64° 38' 29" and a chord which bears North 80° 21' 18" West a distance of 502.58 feet; Thence continuing along the North Right of Way line of Center Loop Drive South 67° 19' 28" West a distance of 80.00 feet; Thence North 22° 40' 32" West a distance of 10.00 feet; Thence Northwesterly along a 419.11 foot curve to the Left, said curve having a radius of 595.00 feet, an internal angle of 40° 21' 29" and a chord which bears North 42° 51' 17" West a distance of 410.50 feet; Thence North 38° 56' 09" East a distance of 1258.00 feet; Thence South 51° 03' 51" East a distance of 970.00 feet; Thence South 43° 24' 17" West a distance of 1008.18 feet to the North right of Way line of Center Loop Drive and the Point of Beginning; all being located in Section 2 of Township 4 North, Range 25, East of the Willamette Meridian, Morrow County, Oregon, Containing 24.85 acres more or less.

EXHIBIT A-2

PREMISES



NO.	DATE	BY	DESCRIPTION OF REVISIONS
1	8/12/08	PSD	RECORD DRAWING

TKDA
ENGINEERS-ARCHITECTS-PLANNERS

444 Cedar Street, Suite 1500
Saint Paul, MN 55101
(651) 292-4400
Fax: (651) 292-4400
www.tkda.com

DESIGNED	DRAWN	CHECKED
MCP	PSD	VM

DATE IS ONE INCH ON SHEET. DIMENSIONS
IF NOT ON THIS DRAWING
SHALL SCALE ACCORDINGLY.

Pacific Ethanol, Inc.
400 Capital Mall
Sacramento, CA 95814

Phone: (916) 433-2123
Fax: (916) 433-2123
www.peiethanol.com

PEI - COLUMBIA
UTILITY PLAN

PROJECT NO. 12560.008
DRAWING NO. 6

033212/00020/5535403v6

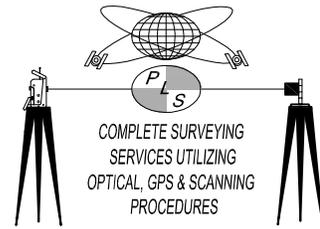
PRIMM LAND SURVEYING, INC.

P.O. BOX 1322 ~ 1340 N.E. 4TH ~ HERMISTON, OR 97838

BUS (541) 564-7887

FAX (541) 567-8020

pls@oregontrail.net ~ www.primmlandsurveying.com



This sub lease premises was prepared at the request of Jack Coons with Kodiak Carbonic, LLC. The datum used to compose this legal description is the same as the datum for the ALTA/ACSM LAND TITLE SURVEY prepared for Pacific Ethanol Columbia, LLC dated October 15, 2007.

SUB LEASE PREMISES ON PACIFIC ETHANOL COLUMBIA, LLC FACILITY

A sub lease premises located in a portion of Section 2, Township 4 North, Range 25 East of the Willamette Meridian, Morrow County, Oregon being more particularly described as follows:

Commencing at a point marking the Southerly corner of the lease boundary as shown on ALTA/ACSM LAND TITLE SURVEY prepared for Pacific Ethanol Columbia, LLC dated October 15, 2007, said point being on the Easterly Right of Way of Rail Loop Drive, from which a brass cap marking the South One-Quarter corner of Section 2 bears S 04°45'10" E, 1666.80 feet; Thence N 12°24'29" E, 297.00 feet leaving said Right of Way and to a point and the True Point of Beginning of this description; Thence N 50°03'29" W, 160.47 feet to a point; Thence N 39°02'16" E, 184.39 feet to a point; Thence S 51°03'49" E, 160.12 feet to a point; Thence S 38°56'11" W, 187.21 feet to the True Point of Beginning.

Containing 29781 square feet more or less.

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
JULY 12, 2005
KEITH P. PRIMM
48490

EXPIRATION DATE: 12/31/16

DATE 20 MAY 15

PRIMM LAND SURVEYING, INC.



CLIENT: KODIAK CARBONIC, LLC

SUB LEASES PREMISES

PROJECT:

COMPOSE LEGAL DESCRIPTION FOR
SUB LEASE PREMISES

JOB #:	1505002
DATE:	20 MAY 15
FB/PG:	
SHEET:	1 OF 1
DRAWN:	KPP
APPROVED:	KPP