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**DAVID EVANS
AND ASSOCIATES INC.**

January 15, 2007

Adam Bless
Oregon Department of Energy
625 Marion St NE
Salem, OR 97301-3737



SUBJECT: REQUEST FOR ADDITIONAL INFORMATION – PACIFIC ETHANOL COLUMBIA

Dear Adam:

This is in response to the Department's Request for Additional Information regarding the proposed Pacific Ethanol Columbia plant. Comments were received from the Oregon Department of Fish and Wildlife (ODFW), Morrow County, and the State Historic Preservation Office (SHPO).

1. Loading Facility

The facility for barging the ethanol has changed since submittal of the NOI and the ASC. It is now the intention for the ethanol to be shipped by barge from a new facility owned and operated by Tidewater, Inc. Tidewater has submitted an application to the Corps of Engineers for this structure. The Corps of engineers Public Notice is enclosed. The Cultural Resource report and Biological Assessment in support of that permit application are also included as an attachment to this letter.

2. Fish and Wildlife Standard

a. Spill Plan

Background

Virtually all of the ethanol from the Boardman dock facility will be transported in state of the art double-hull barges. Federal regulations require that by 2015 all fuel products transported by water be carried in ships or barges that are double-hulled. A double-hulled barge is far safer than a conventional single-hull barge because there is an added layer of protection and strength in case of an accident. Instead of waiting until 2015, Tidewater is aggressively rebuilding and replacing its tank barge fleet far in advance of the Federal deadline. As of November 2006, Tidewater transported 86% of its petroleum cargo in double-hulled tank barges. That percentage will steadily increase as the new double-hull barge launched in September 2006 is used to move fuel in this market. An additional double-hull tank barge has also been ordered, which should be delivered in the summer of 2007 and will further increase this important safety margin.

Tidewater's barges are specifically built for use on the Columbia River and have a number of built-in safety features to further reduce the threat of a spill. Each barge has an "ecology box" that isolates the area where the hoses are connected during a transfer of product. These ecology boxes contain and return to the cargo tanks any spills that may occur during the cargo transfer process. The most likely site of a spill is where the hoses are connected to the piping, and the ecology house is a safeguard



design for this transfer point. A raised edge on the outboard edge of every barge would contain any large spills on the deck of the barge. The height of this raised edge averages about 12 inches and extends the length and width of the barge, eliminating any chance that a spill on the deck of the barge will enter the water.

Safety Practices

Tidewater's tank barges are equipped with redundant high level alarms, including an electronic alarm and manual "metering sticks", which alert the tankermen when the cargo levels reach a certain point. Ensuring that cargo tanks will never be overfilled is the objective. Because of draft restrictions above Bonneville Dam, the cargo tanks are never loaded to more than 80% of capacity. Vapors are collected during the loading operation and sent to a vapor extraction unit that meets Federal and State air emissions requirements. This unit also meets U.S. Coast Guard regulations for vapor extraction used on U.S. waterways.

All cargo compartments are equipped with above deck level indicators, where the PIC (Person in Charge) tankerman can monitor product level at all times during the loading operation. Each cargo compartment is also equipped with a metering stick, which gives the PIC tankerman a visual reference once the product level reaches 42 inches from the top of the compartment. These sticks are color coded as follows, 42 inches to 24 inches are green, 24 inches to 12 inches are yellow, and 12 inches to 0 inches are red. Tidewater policy and procedures forbids any product level to exceed 95 percent of the total compartment capacity. Each compartment is also equipped with a High level alarm set at 97 percent of the total compartment capacity and a High High level alarm set at 98 percent. These alarms will be tied into the shore product pump and MOV (Motor Operated Valve) which, when activated, will shut the product pump down and close the MOV. All barges are equipped with an E-Stop button (Emergency Stop), which will shut the transfer pump down and close the MOV.

Tidewater barges are restricted to a draft of 13 feet, 6 inches for double-hull and 12 feet, 6 inches for single-hulls. The minimum pool level on navigable waters of the Columbia River is 14 feet, adding another safety factor.

All Tidewater employees are limited to operating under strict work hours limits; 15 hours in a 36 hours period and 36 in a 72 hour period. Only employees qualified and licensed as "Tankermen" by the U.S. Coast Guard (USCG) are permitted to conduct fuel transfers. Tidewater Tankermen are some of the most experienced in the industry averaging 12 years of experience. Each tank barge Tidewater owns has an individual set of written procedures specific to that barge, which describe how to safely transfer cargo on that barge. These procedures, developed with the input of the Tankermen themselves, ensure a spill-free transfer operation. Even more important is the annual training and qualification of Tidewater's Tankermen. The Tankermen operate under strict work hour limits to minimize the effects of fatigue.

Before every fuel transfer, the Tankerman in charge of the operation completes a USCG required "Declaration of Inspection" (DOI). The DOI requires that the Tankerman check and verify that each necessary component involved in a cargo transfer is operable, communicate with anyone else involved in the transfer, and certify in writing that the pre-loading inspections and communications were satisfactorily completed.



Tidewater has a rigorous component testing and preventive maintenance program that complies with or exceeds all Federal and State requirements. For example, hoses used in transfer operations are pressure tested annually. Tidewater undergoes rigorous annual third party audits of its tank barge fleet and personnel by representatives of the various companies they transport oil for. Tidewater is also a member of the American Waterway's Operators "Responsible Carrier Program", which is a voluntary effort to increase the safety of its operations through implementation of measures above and beyond what are required by various regulations.

Tidewater has an excellent on-water spill prevention record in the oil transportation industry. In the last 10 years, Tidewater was responsible for only two reportable "sheens" from their tank barges. The total amount of product released in these two incidents is estimated to be less than one cup.

Spill Response

Tidewater has a comprehensive spill response program that is one of the best in the fuel transportation industry. Tidewater's Integrated Contingency Plan details the response resources, tactics, and strategies to respond to any spill by Tidewater facilities or vessels on the River system. This plan is consistent with the Federal and State Northwest Area Contingency Plan. The geographically sensitive areas are listed in those plans with detailed response strategies for those areas.

All of Tidewater's employees, from deck mechanics to management personnel, are trained to respond to, and manage, spills in accordance with the precepts of the National Incident Management System. Employees are trained annually to keep their HAZWOPER qualification current, which allows them to participate in frontline spill response. Tidewater's Environmental Manager has 28 years of U.S. Coast Guard service including experience as a Federal on Scene Coordinator and was Commanding Officer of the internationally recognized Pacific Strike Team. In addition to trained and qualified employees, Tidewater has contracted with some of the most qualified oil spill response experts in the world, including the International Bird Rescue Center, Clean Rivers Cooperative, Polaris Applied Sciences, Fred Devine Salvage, and O'Brien Oil Pollution Services.

Tidewater owns over 19,000 feet of oil pollution boom, has oil skimming capability, and recovered oil storage pre-staged throughout the Columbia River system. A contractual agreement with the Clean Rivers Cooperative increases the amount of spill response equipment available to Tidewater by an approximate factor of three. Because of Tidewater's equipment, personnel, and expertise, non-Tidewater owned commercial vessels in the River above Bonneville Dam rely on Tidewater as their primary oil spill response company.

All Tidewater barges are equipped with Spill Response equipment on board. Spill Response Trailers are also positioned at 10 different locations between Vancouver, Washington and Clarkston, Washington. Boardman is near Tidewater's regional operations center in Pasco, Washington. All Tidewater employees involved with fuel transfer operations are 24-hour HAZWOPER trained, and would act as first responders in the case of a spill.

Tidewater participates in, and leads, spill response exercises – from tabletop exercises to full-scale equipment deployment and personnel mobilization for worst case spill responses. In March 2006, Tidewater partnered with Conoco Phillips, The U.S. Coast Guard, Washington's Department of



Ecology, and Oregon's Department of Environmental Quality in a worst case National Preparedness and Response Program triennial drill.

ODFW also expressed concern about storage of chemicals on the site. As stated in Section G3 of Exhibit G, all materials to be stored outside, including the ethanol produced by the plant, "will be in tanks with 125% secondary containment. All lubricants, oils, greases, antifreeze, cleaners, degreasers, or hydraulic fluids being held for delivery to a certified recycling transporter will be stored inside in the maintenance building in approved containers that will be located above ground."

b. Port's NPDES permit

ODFW expressed concern that wastewater might be discharged to the Columbia River or other surface waters. The Port of Morrow does not discharge its wastewater to the Columbia River or other surface water; it has been issued a Water Pollution Control Facility (WPCF) permit (#102325) for treatment and discharge of their waste water. WPCF permits allow discharge of wastewater to the ground, provided it is applied at agronomic rates, e.g. rates to that do not harm soils or groundwater. A copy of the permit is attached; it is currently being modified by DEQ to include the Pacific Ethanol Columbia facility.

c. Habitat Mitigation

ODFW noted that wood duck boxes, rather than constructed burrowing owl nests (mentioned on Page P-13 of the application), could be used for mitigation. DEA agrees that wood duck boxes could be a component of the mitigation. DEA is currently working with Steve Cherry, Assistant District Wildlife Biologist in Heppner, to develop a specific mitigation plan for impacts. At present, the preferred mitigation option being discussed with ODFW is grassland habitat improvements at the Coyote Springs Wildlife Area.

3. Cultural Resources

Since submittal of the ASC, and as noted above, the ethanol produced at the facility will be shipped by barge from a new facility whose location is shown on the attached figure (which replaces Figure C2 of the ASC) A cultural resource survey has been completed by Reiss-Landreau Research for the new ethanol pipeline alignment. The report concludes that the ethanol pipeline will not impact the known archaeological site to the north and west of the pipeline. A copy of the report is attached.

4. Retirement and Financial Assurance

The bid for demolition required to leave the site in a usable condition for future industrial use upon retirement of the facility, as described in Exhibit W, is attached.

5. Morrow County Planning Department

a. Groundwater management area

Morrow County has noted that the proposed facility would be located within the Lower Umatilla Basin Groundwater Management Area because of the high nitrate and nitrite levels found in the groundwater. As a result, the Port of Morrow monitors its wastewater collection and discharge system to comply with the Oregon Department of Environmental Quality standards. The ethanol facility would discharge its wastewater to the Port of Morrow wastewater collection and treatment system,



which complies with DEQ requirements regarding its treatment and disposal, through land application, of treated wastewater. The proposed ethanol facility would meet the Port of Morrow's requirements for wastewater discharge to its system, and would not contribute a higher concentration of nitrates or nitrites than permitted under those standards.

b. Recreational facilities

The Applicant agrees with the additional information the Morrow County Planning Department has provided.

c. Public Services

The applicant has confirmed that Sanitary Disposal provides refuse and recycling collection services for all of Morrow County. The accurate name for the service provider is Sanitary Disposal, Inc., as identified in Morrow County's letter.

I hope this addresses the issues raised during the application completeness review. Please let me know if you need additional information or clarification. If the Department deems the application complete, please let me know the schedule for public notice and hearing.

Sincerely,

DAVID EVANS AND ASSOCIATES, INC.

Dana Siegfried
Project Manager

Copies: Tom Koehler, Pacific Ethanol

Attachments/Enclosures:

- Corps Public Notice for Tidewater Barge Facility
- Biological Assessment for Tidewater Barge Facility
- Reiss-Landreau Research Cultural Resources Report for Tidewater Barge Facility
- Revised Figure C2 - revised ethanol pipeline alignment
- Port of Morrow WPCF Permit
- Retirement Demolition Bid