BACKGROUNDER Pacific Northwest National Laboratory

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Where Need and Opportunity Merge: Connell Oil and PNNL collaborate to serve the laboratory and the public

Connell Oil's Pacific Pride station is the only ethanol fueling station in Washington State open to the public

The "Need" --

- Pacific Northwest National Laboratory recently decided to use environmentally friendly biofuels in its fleet vehicles, and found that there was little or no access in the region to biofuels whether for government or private vehicles. In fact, no service station existed in the region that offered an ethanol or biodiesel blend to refuel the laboratory's vehicles.

- Therefore, PNNL approached several petroleum distribution companies in the region about providing such a service. Ultimately, only one of those companies, Connell Oil, chose to take the required measures to install pumps and dispense the biofuels not only for PNNL's fleet vehicles, but for public vehicles as well.

- This Connell Oil/Pacific Pride station is the **state's only service station to offer public access to ethanol-85**; an environmentally friendly substitute for gasoline.
    - Connell Oil will be providing ethanol and biodiesel blends for both government and private purchases at the Pacific Pride station located on Bypass Highway 240, near the Richland Airport.

Political Drivers and Benefits to the Nation --

- In 2005, Executive Order 13149 was issued establishing a Department of Energy goal to reduce petroleum consumption 20 percent by 2008.
    - The objective is to reduce the nation's dependence on foreign oil.
    - By substituting100 percent renewable biofuel mixtures in place of imported petroleum from the Middle East, PNNL is becoming both environmentally friendly and working to meet DOE's goal to gain petroleum independence.

- In January 2006, Washington state Governor Chris Gregoire signed into law a bill that requires two percent of the state's total consumption of gasoline-powered to consist of ethanol and two percent of its total consumption of diesel to consist of biodiesel by Dec. 1, 2008.
    - Making these fuels available to the public will help the state achieve that goal.

"Today's announcement is great news for Central Washington as our State continues to lead the way in alternative fuels. Biofuel use is growing across the State, and making ethanol and biodiesel publicly available can help provide price competition to conventional petroleum sources and support a more sustainable and independent energy future. We can capitalize on the Pacific Northwest's ingenuity, put Washington farmers in the fuel business, and power our region's economy on locally-grown crops.

- Washington State Senator Maria Cantwell

(more)

Mixed locally, Available locally, Used locally --

- Connell Oil blends the biofuel mixtures with gasoline and diesel in Pasco.
  - PNNL will now refuel its gasoline-powered (E85) and diesel-powered (B5) fleet vehicles at this Pacific Pride station in Richland.
  - Connell Oil will also provide a B10 mixture to PNNL to power boilers and back-up generators in the Environmental Molecular Sciences Laboratory.

- Projected estimates put PNNL's need for the B5 and E85 biofuels during the coming year at well over 10,000 gallons to refuel its vehicle feet.

Fuel Facts:

Ethanol-85, E85

- Ethanol is typically refined from corn. E85 is a blend of 85 percent ethanol and 15 percent gasoline.
  - E85 can be used in place of gasoline in Alternate Fuel Vehicles, AFVs.
  - The ethanol in E85 is 100 percent renewable
  - E85 reduces the need to ship, pipeline and truck-transport crude oil from distant ports to fueling stations in the U.S.
  - Ethanol easily mixes with gasoline to form the E85 blend, and it degrades rapidly in water (unlike MTBE – a carcinogenic fuel additive to gasoline.)

- The use of E85 reduces smog-forming tailpipe emissions by 25 percent, greenhouse gas emissions by approximately 40 percent and contains 85 percent less of the toxins, sulfur and carcinogens found in conventional gasoline.

- Many newer vehicles are ethanol-compatible.
  - Drivers can determine if their vehicle is biofuel compatible by referring to their vehicle's owner's manual.

Biodiesel-5, B5

- A biofuel blend of 5 percent biodiesel and 95 percent diesel fuel makes up the B5 mixture. B5 is also available at the station.

- Biodiesel fuels significantly reduce sulfur dioxide releases to the air. Carcinogenic releases from biodiesel mixtures are also many times lower than that of standard diesel fuel.