Alaska Department of Environmental Conservation Comments on EPA's Nonroad Rule

The State of Alaska is pleased to present comments on the proposed nonroad rule. We believe the proposed rule is a solid solution to the problems of mobile source, nonroad diesel emissions. We greatly appreciate EPA's continued consideration of Alaska's unique circumstances in dealing with federal diesel fuel rules. We hope to continue to receive this consideration as new fuel rules are developed. Alaska wishes to use and benefit from the new diesel fuel and engine technologies. Alaska's unique geography, climate, and economy makes adaptation of the current rule difficult. To cheaply and conveniently adopt the new fuel and technology will require small changes to the proposed rule. The following paragraphs explain our comments.

Basic assumption: Rural and urban Alaska should not be considered differently in future federal diesel rules. Our comments apply to all of Alaska, assuming rural follows the same rules as urban Alaska.

1. One Step Transition to ULSD

ADEC prefers a one step transition with more sources required to use ULSD. Alaska recommends no phase in for transitioning to ultra low sulfur diesel. We wish to see a transition of all nonroad engines to ultra low sulfur diesel in June of 2010. This provides a goal, a bright line, for funding agencies and communities in Alaska to work toward. A 2010 bright line gives seven years for affected communities, organizations and other groups to upgrade fuel distribution and storage facilities. Phasing in cleaner fuel and "piece-mealing" source requirements unduly complicates Alaska's ability to comply with federal diesel rules.

Current federal diesel rules will complicate rural Alaska's fuel distribution system. Modifying the distribution system increases fuel cost beyond the increase cost of refining. The modifications threaten to increase cost for fuel used in home heating and power generation, which are sources not covered by the federal rules. In addition to increasing fuel costs, the added complexity taxes the capabilities of fuel handling personnel, increasing risk of incorrect labeling and misfueling.

Few rural Alaska sources are covered by the federal nonroad and on-highway rules. Communities either do not have diesel burning mobile sources or very few. Most rural Alaska residents find the actions necessary to comply with federal law to be too expensive. The minimal air quality benefits from cleaning the few, if any, mobile sources, combined with the increased fuel costs and handling difficulty, make buy-in from village residents for these new rules difficult. Therefore, if health data warrants a fuel use change, ADEC strongly recommends EPA require all mobile source diesels move to ultra low sulfur diesel in addition to on and off highway vehicles, as soon as is technologically feasible. These sources would include marine, locomotive, and mobile sources fewer than 75, and over 750, horsepower. It is reasonable to expect our communities should experience an air quality benefit for the increased cost of fuel.

ADEC recognizes the difficulty of a one step, all-source transition, but believe it makes the most sense for Alaska. Currently, Jet A is frequently used as diesel #1 or #2. The cold weather burning properties of Jet A, combined with the relatively large number of aircraft servicing Bush Alaska, generally make Jet A the base fuel delivered to Alaska's rural communities. Even ADEC's recommendation of a one step, all source transition will necessitate two grades of diesel fuel: Jet A, and diesel fuel for all other uses. The loss of this efficiency is regrettable. However, we believe Alaska can hold the line at two fuels if EPA requires 15 ppm sulfur diesel for all on-highway and nonroad sources.

2. Continuing to Use Dye Free Fuel

Alaska has long been exempt from red dye requirements for non-road fuels. This facilitates an efficient and cost effective fuel distribution system keeping diesel costs in rural Alaska to a minimum. Even at a minimum, many Alaskans pay in excess of four dollars per gallon for diesel. Power costs may be fifty cents per kilowatt-hour, after government subsidy. Keeping the fuel system as simple as possible is an imperative. ADEC appreciates Alaska's continued exemption from the red dye rules.

Keeping the distribution system as simple as possible not only keeps fuel costs to a minimum, but also facilitates rural Alaska's ability to import ultra low sulfur diesel. The new federal nonroad rules have yellow dye requirements, which depend on the years of implementation and diesel engine source category. Whereas the yellow dye requirements were included to ensure proper fueling of diesel engines, it may hamper Alaska's ability to import cleaner burning fuel.

The federal nonroad diesel rule assumes fuel segregation will occur at the refiner, with continued segregation throughout the distribution system, all the way to the end user. Alaska does not work this way. Jet A is dye free and the primary grade of fuel distributed to rural Alaska. It is shipped once a year, when the river ice is out allowing barge traffic on the rivers. The delivered fuel is then used in all sources. This system works for Alaska and should continue. Dependable fuel is delivered at a market price tolerated by the communities. Our first priority is to keep dye products out of the fuel stream. The Federal Aviation Administration does not allow any dye in Jet A. A dye free fuel stream will eliminate the risk of contaminating Jet A.

Without a total transition to ultra low sulfur diesel, Alaska's rural communities will have to segregate Jet A and diesel fuels with15 ppm, 500 ppm, and uncontrolled sulfur levels. A total transition to 15 ppm fuel would solve many segregation problems of fuel barge modifications and extra storage tanks. Yet, a total transition will be more difficult to accomplish if fuels have to be dyed and separated by predicted use. Transfer documents and fuel pumps labels can be modified to reflect that vehicle and non-vehicle fuels are not segregated and can be dispensed as one fuel. Required dyeing would only impede that flexibility.

Currently, licensed fuel distributors report expected fuel use to the state for tax purposes. We recommend this system continue allowing tracking of fuel use through distributor reports, paper trailers and bills of laden. Labeling of engines, fuel pumps, and retailer education will be an important part of eliminating misfueling. Further, more rapid transition requirements by EPA for locomotive, marine and small engines would cause 15 ppm sulfur diesel to become the predominant fuel by 2010. This ensures a proper fuel for all sources, with dyeing unnecessary.

3. Fuel Mixing

ADEC agrees and supports the provisions in 69.52(c)(1)-(3). These provisions allow Alaska to mix vehicle and off-road fuels if both meet sulfur/cetane/aromatic requirements for the on-road fuel. Most distributors indicate a desire not to segregate. This means 15 ppm sulfur diesel will likely be the predominant fuel imported. Higher sulfur fuel could be imported to rural Alaska, but only as long as it is separated from on-highway vehicle fuel.

4. Product Labeling

Are the labels under 80.573 practical? Will they fit on the pumps?

Labels should reflect that Alaskan fuel is dye free. Labels should describe 15 ppm fuel as appropriate for all diesel sources at any time. Fuel with 500 ppm sulfur should be labeled as appropriate for nonroad, locomotive and marine until 2010, and locomotive and marine after 2010. Uncontrolled sulfur fuel should be labeled as only appropriate after 2007 for heating oil, or stationary sources if engine and permit specifications allow its use. Alaska labels should describe appropriate sulfur levels in fuel by use and source type depending on the date. The labels should be fuel specific, and good for all 2007 and later dates. The labels outlined in the proposed nonroad rule will not work well in Alaska. They are designed to change in 2007, 2010, and in 2014.

80.590(a)(5)(v)(A) - The label "High sulfur Dyed Nonroad, Locomotive, and Marine Engines Diesel fuel-sulfur content may exceed 500 ppm. Not for use in any highway vehicles or engines. Not for use in any nonroad engines." is confusing because the label calls the fuel "nonroad … diesel fuel" but then states the fuel is "Not for use in nonroad engines." At this point in the regulatory timeline, it seems that high sulfur fuel can be used in nonroad equipment only in emergencies, hardships, and small refiner exemptions.

5. Product Transfer Documents

We recommend the language of product transfer documents for Alaska bound fuel be simplified. As with pump labels, product transfer documents should reflect appropriate source use of fuel with different sulfur levels depending on the date.

6. Rebuild requirements

Nonroad engines are included in the emission requirements. Part 1065 – test procedures and equipment – apply to anyone who manufactures, imports, installs, owns, operates, or rebuilds. Rebuilt engines are common in Alaska. What is the definition and where is the line drawn between tinkering, fixing, modifying and rebuilding? Do the rules regulate rebuilds by individual owners or fleets? Or do the rules only apply to larger engine manufacturer rebuild facilities?

If you have any questions please contact:
Clint Farr, Environmental Specialist
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Ste. 303
Juneau, Alaska 99801-1795
907-465-5100
clint_farr@dec.state.ak.us