

percentage of a refinery's or importer's current high-sulfur diesel fuel and heating oil (number 1 and number 2) production would be deemed to be NRLM diesel fuel and thus, subject to the proposed 500 ppm cap beginning June 1, 2007. The remaining percentage would remain uncontrolled and would not need to contain a marker. A refiner's NRLM baseline percentage would be applied to the percentage of distillate not included in the highway baseline (*i.e.*, the proposed non-highway baseline). For example, if a refiner's highway baseline was 50% and its NRLM baseline was also 50%, then 25% of its production would have to meet the 500 ppm NRLM standard.

If a refiner chose not to use the NRLM baseline percentage, a refinery or importer would have to add the proposed marker and segregate their heating oil from any NRLM diesel fuel throughout the distribution system, including high sulfur NRLM diesel fuel (produced through the use of credits or by small refiners or refiners utilizing hardship provisions). The refinery would have to demonstrate that the fuel was segregated all the way through to the end-user and that the end-user used the fuel for legitimate heating oil purposes only. NRLM end-users would

be prohibited from using any fuel with a marker.

There are, however, certain difficulties in establishing an NRLM baseline percentage. Unlike the situation today where highway diesel fuel and non-highway distillates are accounted for based upon their different sulfur levels and the presence of red dye, there is no easy way to measure a given refinery's current production of NRLM diesel fuel as compared to their production of heating oil, in order to accurately establish an individual refinery baseline percentage. Generally the two fuels are produced and shipped as a single fuel. We considered whether refiners and importers could reliably track their high sulfur fuel through the distribution system and estimate the volumes used as diesel fuel and heating oil to establish individual refinery baselines. However, most high sulfur diesel fuel and heating oil is shipped by fungible carriers and we do not believe that sufficient data exist to accurately determine which refiner's fuel was actually consumed in either end-use. Discussion with several refiners have supported this belief. Therefore, we developed an approach that would assign each refinery a percentage of their current high-sulfur distillate

production, based on the PADD they reside in, as their NRLM baseline. PADDs 1 and 3 would be combined due to the large amount of high sulfur non-highway diesel fuel shipped from PADD 3 to PADD 1 today.

Under this approach we would project consumption of NRLM diesel fuel and heating oil to determine the relative consumption of these two fuels by PADD. This would be the NRLM baseline assigned to refiners and importers in that PADD. This volume percentage of non-highway diesel fuel would then be considered NRLM and have to meet the proposed 500 ppm cap beginning June 1, 2007. The remainder of the non-highway diesel fuel would remain uncontrolled by EPA and would only have to meet any applicable state sulfur standards for heating oil. If a refinery desired to only produce heating oil, then they could either purchase credits from other refineries or segregate and mark their heating oil.

Using EIA estimated fuel consumption data for the year 2000, grown to 2008 using EPA NONROAD emission model growth rates for nonroad and EIA growth rates for other fuels, produces the NRLM baseline percentages shown in Table IV-2.

TABLE IV-2—NRLM DIESEL FUEL BASELINE PERCENTAGES

PADD	Breakdown of High Sulfur Distillate Fuel Production (In percent)		
	Nonroad	Loco and marine	Combined
1 and 3 .....	26	16	42
2 .....	57	27	84
4 .....	67	29	96
5 (excluding Alaska) .....	59	18	77
Alaska .....	22	28	50

One particular concern with this NRLM baseline approach is whether refiners can easily respond to above average demand for heating oil (*e.g.*, in unusually cold winter). As today, any short-term, unexpected increases in demand will be made up from existing inventories of fuel. Today, if there are insufficient inventories of high sulfur fuel, 500 ppm inventories are tapped as well. The same situation will continue to occur in the future. As a result, the issue is not one of being able to supply the market with sufficient fuel to meet demand, but rather what quality of fuel must be produced to build inventories back up after high demand has brought them down. This could be addressed in a number of ways. First, in setting the NRLM baseline itself we could make

sure it is not too high and allows for sufficient volumes of high sulfur heating oil to be produced even in the event of an unusually cold winter. Second, we could allow credits to flow across the country through a nationwide credit trading program. This would allow the production of high sulfur fuel to likewise flow across the country to the places experiencing higher than normal demand. Third, provisions could be made for deficit carry over of credits. If demand for high sulfur fuel is unusually high in one year, a refiner could increase production to respond to that demand as long as it is made up the following year.

Another concern raised by this baseline approach is the inability to accurately tailor it to each refinery's

actual historical production of NRLM. This NRLM baseline approach does reflect the historical practice for the industry as a whole—refineries produced fungible high sulfur fuel for distribution as a common pool of fuel that was later sold as either NRLM or heating oil. However, it does not allow for refinery specific customization. The proposed non-highway baseline approach determines the specific non-highway percentage for each refinery, and the actual volume of marked and dyed heating oil is allowed to vary. The lack of individual specificity for the NRLM baseline approach, however, avoids the need to add a marker to heating oil.