
High Sulfur NRLM Credit Calculation Guidance

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Assessment and Standards Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

Q: Please provide some guidance on generating high sulfur NRLM credits, especially on how refiners and importers are to apply the provisions and equations of section 80.535.

A: Per §80.535(a) of the regulations, refiners and importers may generate “high sulfur” NRLM credits from June 1, 2006 through May 31, 2007. These credits may be used to produce high sulfur NRLM diesel fuel after June 1, 2007.

To generate such credits, a batch of diesel fuel must be designated as “NRLM” and must meet the 500 ppm sulfur standard when it is transferred to the next entity (per §80.535(a)(5)). To begin generating credits, a refiner or importer must submit to EPA a notice of intent to generate credits; the notification must be received by EPA at least 30 days prior to the date that it begins generating credits. Credits may not be “double-counted” (i.e., a refiner/importer may not generate highway diesel fuel credits, under §80.531, and high sulfur NRLM credits for the same volume of fuel). However, a refiner may generate high sulfur NRLM credits and also either generate or use highway credits (to meet their highway ULSD production requirements) during the same compliance period.

Credits may be generated one of two ways:

1. The diesel fuel must be dyed, and thus designated as NRLM, per the provisions of §80.520; or,
2. For undyed (or dyed) fuel, apply the equation of §80.535(a)(2)(ii):

$$\mathbf{HSC = V_{510} + V_{520} - B_{MV}}$$

Where:

V_{510} = the total volume of NRLM diesel fuel (15 ppm + 500 ppm) produced or imported during the annual compliance period

V_{520} = the total volume of highway diesel fuel (15 ppm + 500 ppm) produced or imported during the annual compliance period

B_{MV} = the refiner or importer’s highway baseline (per §80.533, baseline applications were due for high sulfur credit generation on February 28, 2006)

In order to generate high sulfur NRLM credits using the baseline approach in method 2, the refiner’s total production of 15 ppm and 500 ppm diesel fuel must be greater than their highway baseline volume. This restriction was intended to ensure that credits were not generated simply by shifting 500 ppm diesel fuel from the highway market to the nonroad market. The value of HSC as calculated from the equation is also limited by §80.535(a)(5), which states that the fuel must have been designated as “NRLM” when it was transferred to the next entity.

Here are some examples to illustrate how to calculate high sulfur NRLM credits using the baseline approach in method 2:

(Note- for all of the following examples, the refiner has a highway baseline volume of 100 gallons; 1 credit = 1 gallon)

- (1) A refiner produces 100 gallons of 500 ppm diesel fuel. All of the 500 ppm diesel fuel is designated as NRLM diesel fuel.

$$\begin{aligned} \text{HSC} &= V_{510} + V_{520} - B_{\text{MV}} \\ &= 100 + 0 - 100 \\ &= 0 \end{aligned}$$

The refiner did not produce more total diesel fuel than its highway baseline, therefore the refiner cannot generate any high sulfur NRLM credits.

- (2) A refiner produces 120 gallons of 500 ppm diesel fuel. 50 gallons of the 500 ppm diesel fuel is designated as NRLM, and 70 gallons is designated as highway diesel fuel.

$$\begin{aligned} \text{HSC} &= V_{510} + V_{520} - B_{\text{MV}} \\ &= 50 + 70 - 100 \\ &= 20 \end{aligned}$$

The refiner can generate 20 high sulfur NRLM credits. Also, the refiner must obtain a number of highway diesel sulfur credits equal to 80% of its 500 ppm highway diesel fuel production (or $0.80 \times 70 = 56$ highway credits).

- (3) A refiner produces 100 gallons of 15 ppm diesel fuel and 100 gallons of 500 ppm diesel fuel. All of the 500 ppm diesel fuel is designated as NRLM diesel fuel, and all of the 15 ppm diesel fuel is designated as highway diesel fuel.

$$\begin{aligned} \text{HSC} &= V_{510} + V_{520} - B_{\text{MV}} \\ &= 100 + 100 - 100 \\ &= 100 \end{aligned}$$

The refiner can generate 100 high sulfur NRLM credits. Also, the refiner can generate highway diesel sulfur credits equal to 20% of its 15 ppm highway diesel fuel production, or $0.20 \times 100 = 20$ highway credits.

- (4) A refiner produces 200 gallons of 15 ppm diesel fuel, all of which is designated as highway diesel fuel.

$$\begin{aligned} \text{HSC} &= V_{510} + V_{520} - B_{\text{MV}} \\ &= 0 + 200 - 100 \\ &= 100 \end{aligned}$$

While $\text{HSC} = 100$, the refiner did not designate any of the fuel as NRLM diesel fuel. Therefore, the refiner cannot generate any high sulfur NRLM credits. The refiner can generate highway diesel sulfur credits equal to 20% of its 15 ppm highway diesel fuel production, or $0.20 \times 200 = 40$ highway credits.

The same result of zero HSC occurs in this example if the 200 gallons of production were 500 ppm highway diesel fuel as opposed to 15 ppm highway diesel fuel. However, in this instance, the refiner would need to purchase 40 highway credits rather than generating 40 highway credits.

- (5) A refiner produces 200 gallons of 15 ppm diesel fuel and 100 gallons of 500 ppm diesel fuel. All of the 500 ppm diesel fuel is designated as NRLM diesel fuel and all of the 15 ppm diesel fuel is designated as highway diesel fuel.

$$\begin{aligned} \text{HSC} &= V_{510} + V_{520} - B_{MV} \\ &= 100 + 200 - 100 \\ &= 200 \end{aligned}$$

While $\text{HSC} = 200$, the refiner only designated 100 gallons of 500 ppm diesel fuel as NRLM diesel fuel. Therefore, the refiner can only generate 100 high sulfur NRLM credits. Also, the refiner can generate highway diesel sulfur credits equal to 20% of their 15 ppm highway diesel fuel production, or $0.20 \times 200 = 40$ highway credits.