

## Number of Vehicle Tank Turnovers that Would not Comply with the Predictive Model Standards During Tank Transitions from One Ethanol Fuel to Another

| Transition from     | Pollutant | Terminal Tank Heel Amount |       |
|---------------------|-----------|---------------------------|-------|
|                     |           | 10%                       | 20%   |
| 5.7 to 7.7 vol% (H) | NOx       | 2                         | 2     |
| 5.7 to 7.7 vol% (L) |           | 0 (1)                     | 0 (1) |
| 5.7 to 10 vol%      |           | 0                         | 2 (1) |
| 7.7 to 10 vol%      |           | 0                         | 1     |
| 7.7 to 5.7 vol% (H) | HC        | 0                         | 0     |
| 7.7 to 5.7 vol% (L) |           | 1                         | 2     |
| 10 to 5.7 vol%      |           | 0                         | 0 (2) |
| 10 to 7.7 vol%      |           | 0                         | 0     |

H refers to 5.7 and 7.7 vol% ethanol fuels with 20 and 14 ppmw sulfur, respectively

L refers to 5.7 and 7.7 vol% ethanol fuels with 14 and 12 ppmw sulfur, respectively

The number in parentheses applies only when the number of tank turnovers that would not comply is different for the second vehicle than it is for the first vehicle.

## Predicted Change in Exhaust Emissions During Transitions from One Ethanol Fuel to Another

| Transition from     | Pollutant | Change in Emissions <sup>1</sup> for Terminal Tank Heels of |        |
|---------------------|-----------|---|--------|
|                     |           | 10%   | 20%    |
| 5.7 to 7.7 vol% (H) | NOx       | 0.10%   | 0.16%  |
| 5.7 to 7.7 vol% (L) |           | -0.14%  | -0.12% |
| 5.7 to 10 vol%      |           | -0.16%  | -0.01% |
| 7.7 to 10 vol%      |           | -0.12%  | -0.03% |
| 7.7 to 5.7 vol% (H) | HC        | -0.39%  | -0.34% |
| 7.7 to 5.7 vol% (L) |           | -0.03%  | 0.02%  |
| 10 to 5.7 vol%      |           | -0.24%  | -0.10% |
| 10 to 7.7 vol%      |           | -0.41%  | -0.34% |

<sup>1</sup> Estimates obtained using the predictive model

H refers to 5.7 and 7.7 vol% ethanol fuels with 20 and 14 ppmw sulfur, respectively

L refers to 5.7 and 7.7 vol% ethanol fuels with 14 and 12 ppmw sulfur, respectively