Poster P-1

EFFECT OF ENGINE-OUT NOx CONTROL STRATEGIES ON PM SIZE DISTRIBUTIONS IN HEAVY-DUTY DIESEL ENGINES DEVELOPED FOR 2010

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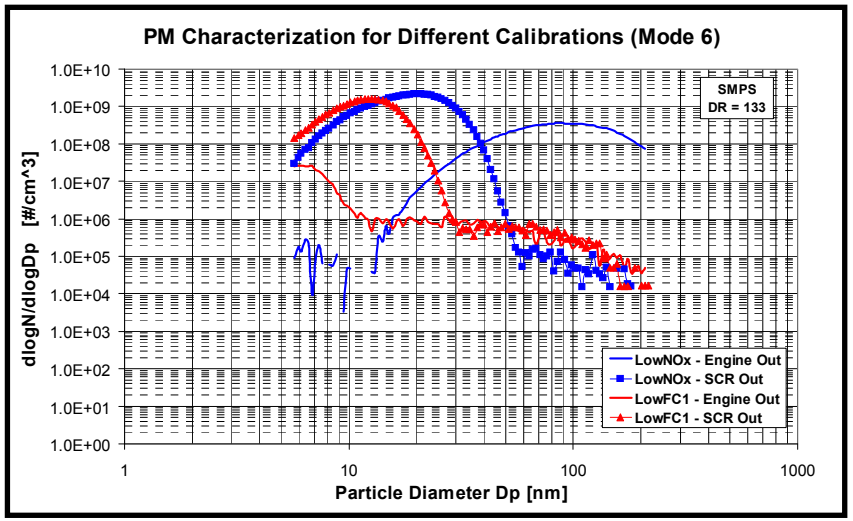
Engine-out / SCR-out Comparison Single Mode

Nucleation Mode PM

- The DPF was found to enhance the formation of nucleation mode particles for high load (high T) modes. For the same load conditions the SCR increased the concentration, and count median diameter
- A relationship was evident between engine-out and SCR-out PM distributions for high load (high T) conditions for steady state testing



Accumulation Mode PM

- No drop in DPF filtration efficiency was found in neither the steady state nor the transient modes of operation for accumulation-mode PM
- A distinct relationship was found between engine-out and SCR-out PM distributions for single mode testing