

Subj:

FW: DG Emissions Discussion Draft -- delete if not interested

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DREmissionsRuleNovDraft.pdf (119570 bytes) DL Time (32000 bps): < 1 minute

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Dear Mr. Weston -

Our comments on your proposed rule are as follows and they are based on our experience working on fuels for emergency generators:

Only SOFC and PAFC fuel cell technologies were considered. Neither of these are logical choices for emergency generators. PAFCs are being phased out by the only company that commercialized this technology and SOFCs have very slow start-up times because they must warm up to ~600C for operation. The fuel cell technologies that are viable for this application are Proton Exchange Membrane (PEM) fuel cells and Alkaline fuel cells. For emergency generation, neither of these fuel cells typically choose to reform a hydrocarbon fuel because the reformation process is very slow starting. Therefore, these technologies are pursuing pure hydrogen fuels for this application. These pure hydrogen fuels result in practically zero emissions from the emergency generators.

We do not expect this transition to hydrogen fuel cells to occur overnight, however, it will accelerate steadily over the next decade. Consequently, our recommendation is, as you have suggested with all other emissions, the CO2 emissions should show a decrease over the time horizon of your standard. Otherwise, it seems there is no incentive in your proposed standard to transition to a cleaner available and economically viable alternative. This change would not overly influence emergency generators to pursue fuel cells. As an alternative, hydrogen-fueled

combustion engines are an available technology today for no more capital expense vs. today's natural gas fueled combustion engine.

Sincerely,

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