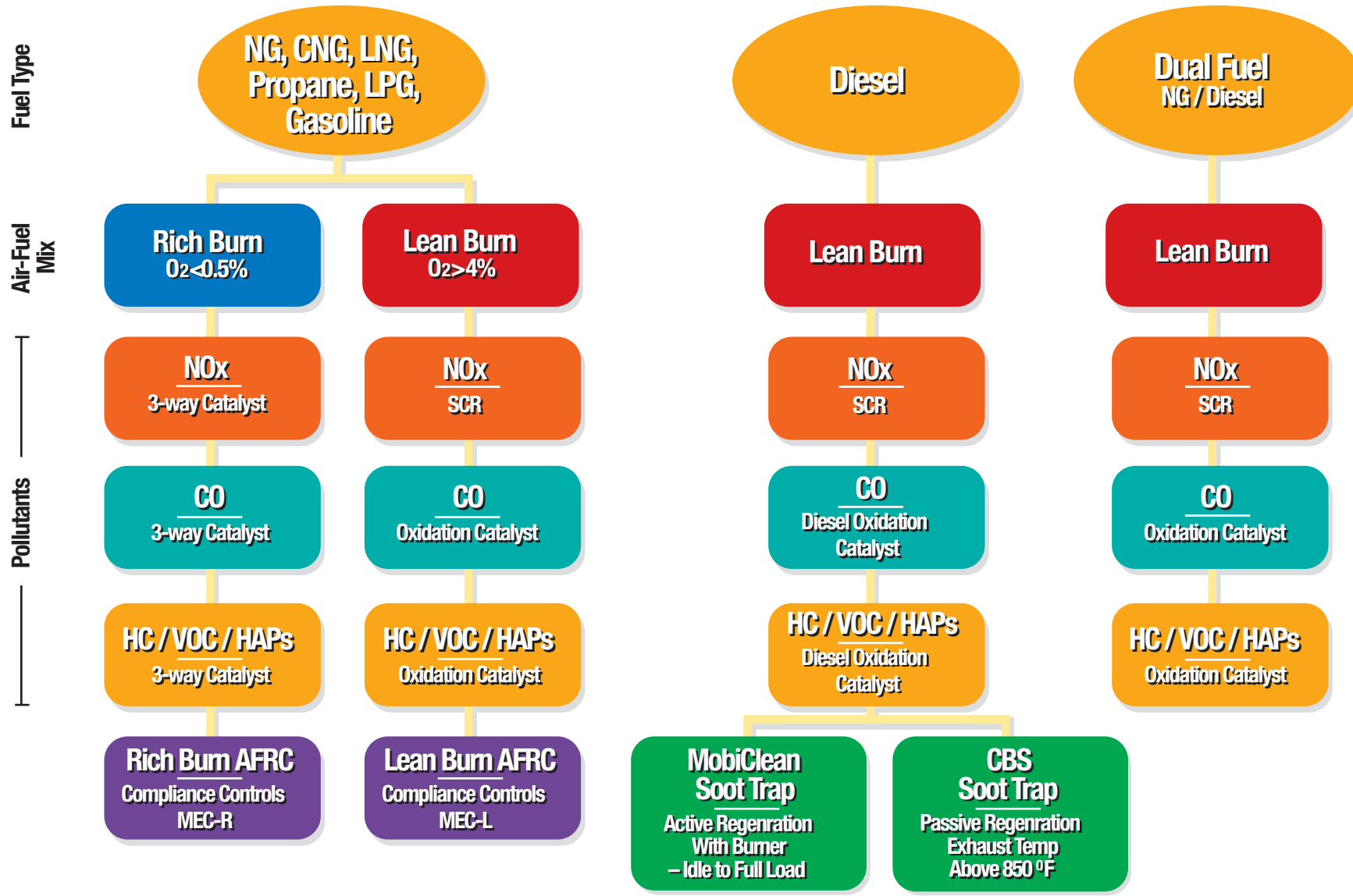


►► MIRATECH Catalyst Decision Tree



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Fuel Type

NG = Natural Gas

CNG = Compressed Natural Gas

LPG = Liquid Petroleum Gas

Pollutants

NO_x = Oxides of nitrogen

CO = Carbon Monoxide

HC = Hydrocarbons, including VOCs (Volatile Organic Compounds) and HAPs (EPA-listed Hazardous Air Pollutants such as Acrolein & Formaldehyde)

Solutions

3-Way Catalyst: A Non-Selective Catalytic Reduction (NSCR) system that simultaneously reduces NO_x, CO and HC / VOCs / HAPs in rich-burn engine emissions.

SCR: A Selective Catalytic Reduction needed because excess air (oxygen) in the exhaust stream of lean-burn engines prevents NSCR NO_x reduction.

Oxidation Catalyst: A Non-Selective Catalytic Reduction (NSCR) system that simultaneously reduces CO and HC / VOCs / in lean-burn natural gas and dual fuel engine emissions.

Diesel Oxidation Catalyst: A Non-Selective Catalytic Reduction (NSCR) system that simultaneously reduces CO and HC / VOCs / HAPs in diesel engine emissions.

AFRC = Air-Fuel Ratio Control System. With rich-burn engines, variance in the air-fuel mix by as little as 1% from the “stoichiometric” ratio – the theoretical point at which all fuel is consumed in combustion – will keep NSCR catalysts from functioning properly.

The Compliance Controls MEC-R ensures catalyst performance by automatically maintaining the optimum rich-burn air-fuel mix despite varying loads, operating environments and fuel composition.

The Compliance Controls MEC-L optimizes lean-burn engine performance, prevents malfunctions and engine damage, and ensures catalyst performance in systems that include an Oxidation Catalyst by automatically maintaining the correct air-fuel mix despite varying loads, operating environments and fuel composition.

Active Regeneration Soot Trap: A diesel particulate filter system equipped with a burner that regenerates or burns off particulate matter built up on the filter – regardless of engine load or exhaust temperature.

Passive Regeneration Soot Trap: A diesel particulate filter system which uses exhaust heat above 850° to regenerate or burn off particulate matter built up on the filter.