

**Tuesday, December 9th**

**8:00-8:30 REGISTRATION**

**8:30 WELCOME TO THE DIESEL RETROFIT BOOT CAMP™**

**8:45 PART 1: EMISSION REDUCTION STRATEGIES AND APPLICATIONS**

**MODULE I. INTRODUCTION**

- On-road and Offroad Sectors and Emission Reduction Application Opportunities
- What's Behind the Interest/Need for Emission Reduction Programs – The Drivers
- Choosing the Appropriate Strategy(s) to Meet Your Objectives

**MODULE II. DIESEL AND GASEOUS ENGINE OPERATION**

- Engine Operation
- Origin of HC, CO, NO<sub>x</sub>, PM (Carbon, SOF, H<sub>2</sub>SO<sub>4</sub>, etc.)
- Exhaust Temperature Characteristics
- Importance of Duty Cycle

**9:45 BREAK**

**10:00 MODULE III.A. FUEL-BASED EMISSION REDUCTION STRATEGIES AND APPLICATIONS**

- Ultra-Low Sulfur Diesel Fuel
- Biodiesel
- Diesel Fuel Emulsions
- Diesel Fuel Additives
- Other Alternative Fuels

**STRETCH-BREAK**

**11:00 MODULE III.B. TECHNOLOGY-BASED EMISSION REDUCTION STRATEGIES AND APPLICATIONS**

- Diesel Oxidation Catalyst
- Diesel Particulate Filter
- Closed Crankcase Control Systems

**12:00 LUNCH**

**1:00 MODULE III.B. TECHNOLOGY-BASED EMISSION REDUCTION STRATEGIES AND APPLICATIONS (CONTINUED)**

- Lean NO<sub>x</sub> Catalyst
- Selective Catalyst Reduction
- Low-Pressure Exhaust Gas Recirculation
- Engine Electronic Control Reprogram.

**STRETCH-BREAK**

**2:00 MODULE III.C. OPERATIONAL-BASED EMISSION REDUCTION STRATEGIES AND APPLICATIONS**

- Early Vehicle/Equipment Retirement
- Engine Replacement/Repower
- Idle Reduction
- Repair/Maintenance

**2:45 BREAK**

**3:00 MODULE IV. CHOOSING EMISSION REDUCTION STRATEGIES, PRODUCT ACQUISITION, AND STRATEGY IMPLEMENTATION**

- Selecting the Emission Reduction Strategy
- Selecting the Vehicle/Equipment
- Selecting the Fleet
- Fleet Outreach and Training
- Strategy for Acquisition
- Pre-Installation
- Maintenance
- Monitoring
- Fuel Considerations
- Technical Considerations in Terminating a Project

**STRETCH BREAK**

**4:00 MODULE V. GREENHOUSE GAS BASICS AND DRIVERS**

- Description of greenhouse gases
- Major sources of greenhouse gases
- Drivers for reducing greenhouse gas emissions

**4:30 MODULE VI. SYNERGY BETWEEN REDUCING DIESEL EMISSIONS & ADDRESSING CLIMATE CHANGE**

- Greenhouse gas formation
- Greenhouse gas emission inventory development
- Opportunities and methods for reducing energy/fuel consumption and greenhouse gas emissions

**5:30 DAY ONE WRAP-UP**

**Wednesday, December 10th**

**8:30 PART 2: ELEMENTS OF A SUCCESSFUL EMISSION REDUCTION PROGRAM**

**MODULE I. INTRODUCTION**

**MODULE II. EMISSION REDUCTION PROGRAM DEVELOPMENT PROCESS**

- Assessing Emission Reductions, Establishing Realistic Objectives and Setting Achievable Targets
- Emission Reduction Program Policy and Implementation Options
- Structuring, Planning and Managing an Effective Emission Reduction Program
- Program Evaluation

**10:45 BREAK**

**11:00 MODULE III. DEALING WITH THE DILEMMA: REDUCING POLLUTANT EMISSIONS, GREENHOUSE GASES, OR BOTH**

- Case study examining the difficulties encountered in analyzing options, benefits, costs and decision factors involved with making a decision to reduce pollutant emissions, greenhouse gases or both.
- Illustrations show the outcomes of several options for consideration, and highlight the additional complexities involved with these decisions if reductions are to be used for generating emission reduction credits

**11:30 LUNCH**

**12:30 MODULE IV. EMISSION REDUCTION PROGRAM EXPERIENCE AND LESSONS LEARNED**

- Program Types
- Mandatory Programs -- Considerations, Experience, and Examples
- Voluntary Programs – Considerations, Experience, and Examples

**1:30 MODULE V. IDENTIFYING AND ACQUIRING FUNDING**

- Funding Sources and Incentives
- Preparing Grant Applications and Funding Proposals

**STRETCH BREAK**

**2:45 MODULE VI. RETROFIT PROGRAM PARTNERS & CONSTITUENTS**

- Elements and Methods for Building Constituency and Successful Partnering
- Understanding Industry and Private Sector Perspectives Regarding Emission Reduction Programs, and Factors of Importance to Them
- Public Education and Outreach

**3:45 FRAMEWORK FOR RETROFIT PROJECT PLANNING AND IMPLEMENTATION**

- Road maps and checklist for project structuring and implementation

**4:00 BOOT CAMP WRAP-UP**

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