



RICE NESHAP System Considerations

- Type of emission control technology
- Engine backpressure requirements
- Placement of emission control device inside or outside building/enclosure
- Exhaust piping and supporting structure for emission control device
- Installation
- Continuous monitoring of catalyst temperature and pressure drop
- Catalyst service
- Compliance testing





System Considerations

- Engine backpressure requirements
 - What is current backpressure?
 - Will engine withstand an additional 3-4" H₂O?
- Placement of emission control device
 - Is there space in current exhaust system?
 - Will exhaust gas reach 500°F at catalyst inlet?
 - Will a packed silencer be upstream of the catalyst? (Fibers)
 - Are there readily accessible service points?
 - If installed outside, will winter temperatures affect performance of the catalyst?





System Considerations



- Exhaust piping and support structure for emission control device
 - Can current support structure handle emission control device's weight?
 - May need to budget for additional steel supports for the catalyst
 - Minimize additional 45° and 90° elbows for exhaust piping
 - Straight through configuration is ideal



System Considerations

- Installation
 - Can your technicians handle? Or will you want to outsource?
 - Will you be able to “splice” into current exhaust piping?
 - When to schedule installation?
 - Annual maintenance?
 - In conjunction with a major engine overhaul?





System Considerations

- Monitoring of catalyst temperature and pressure drop
 - CPMS required for 500 HP and above
 - Temperature must be logged continuously
 - Pressure drop must be logged monthly





System Considerations



- Catalyst service
 - Convenient and safe location of access doors
 - Does catalyst weight meet OSHA lifting requirements?
 - Throwaway catalyst or remove and clean?

- Compliance testing
 - Schedule after system is installed
 - Don't need to do pre-testing if engine already has previous test data
 - Work with an emissions control supplier that will provide testing





Catalyst only or Catalyst/Silencer combo?

- Available engine backpressure
- Cost/Budget
- Installation space available
- Maintenance space available
- Temperature
- Site condition changes (upgrade acoustic performance)
- Condition of current silencer



Serviceable or Non-Serviceable?

- Cost/Budget
- Total hours of operation
- Maintenance space available
- Weight & Size
- Location in respect to silencer
- Exhaust temperature