

Diesel Aftertreatment Accelerated Aging Cycle

SwRI Symposium

02/22/2008



Welcome!

from

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When Do You Start a Consortium?

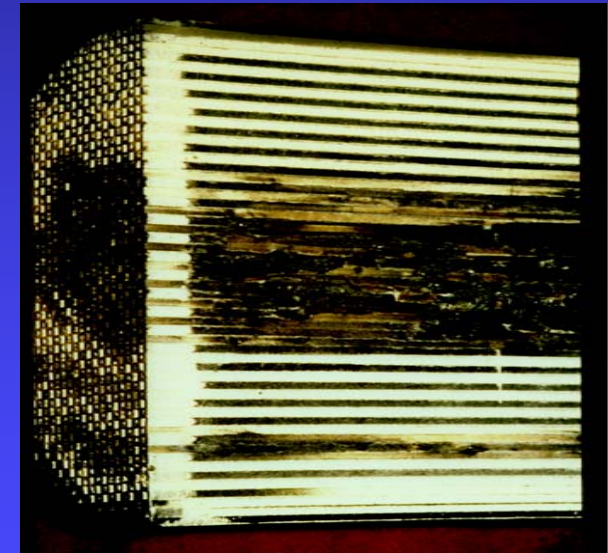
- ◆ **Determine Opportunities where Cost Sharing for a Common Good Makes Sense**
- ◆ **Envision a Common Goal, for example:**
 - A problem that needs to be solved
 - Research to accelerate technology development
 - Durability type activity



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SwRI's First Consortium - 1985

- ◆ Diesel Particulate Emission Control Used New Technology
 - Emission standards date set
 - Technology was applied before fully understood
- ◆ All Shared the Same Problem
 - Lack of understanding the technology
- ◆ Many Could Benefit from Learning Basic Study
 - Precompetitive so comfort was apparent



1985 Particulate Trap Consortium Timetable

- National Cooperative Research Act of 1984
 - October 14, 1984
- SwRI Solicited Trap Consortium Concept to 32 Companies
 - October 24, 1984
- Sufficient Positive Responses Rec'd and Formal Proposal Submitted
 - March 18, 1985
- Consortium Formed with Required Minimum of 10 Participants
 - July 1, 1985



Automotive Engineering Consortia

Title	No. Of Participants	Inclusive Dates
Evaluation on the Mechanisms of Heavy-Duty Diesel Particulate Trap Regeneration	28	1985 to 1987
Lubricating Oil Contribution to Diesel Particulate Emissions	19	1987 to 1990
Development of a High Temperature Resistant Diesel Particulate Trap	16	1988 to 1990
Bus Emissions Technology	4	1988 to 1995
Investigation of the Potential Effects of Lubricating Oil on Diesel Flowthrough Catalysts	12	1991 to 1993
Feasibility of Using Molecular Sieves for Lean NO _x Control	16	1991 to 1992
Development of Molecular Sieves to Reduce Cold-Start Emissions from Automobiles	14	1991 to 1992
Naturally-Aspirated Tier 3 Consortium	15	1991 to 1994
Diesel Aftertreatment Sensitivity to Lubricants	7	1991 to 1995
Ultra-Low Emissions Engine Program	15	1991 to 1995
General Development of Lean NO _x Catalyst	2	1993 to 1994
Development of Molecular Sieves to Reduce Cold-Start Emissions from Automobiles, Part	9	1993 to 1995
Diesel Particulate/NO _x Exhaust Aftertreatment Using Plasmas or Corona Discharges	3	1995 to 1997
Clean Diesel Program, Parts I, II, III, IV, V	40	1991 to Date
High Efficiency Dilute Gasoline Engine	28	1995 to date
Topics Related to Catalytic Converter Hot Vibration (Physical Durability) Testing	Proposed	

- 16 Consortia formed
 - Used solicited proposals, survey's, symposia, etc
- Each had unique operation style
- All had common elements
- One of SwRI's Best Programs



Thank You!



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