ADVANCED MATERIALS FOR EXHAUST COMPONENTS

Philip J. Maziasz
Metals and Ceramics Division
Oak Ridge National Laboratory

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Advanced Materials for ARES Engines

Phil Maziasz
ORNL
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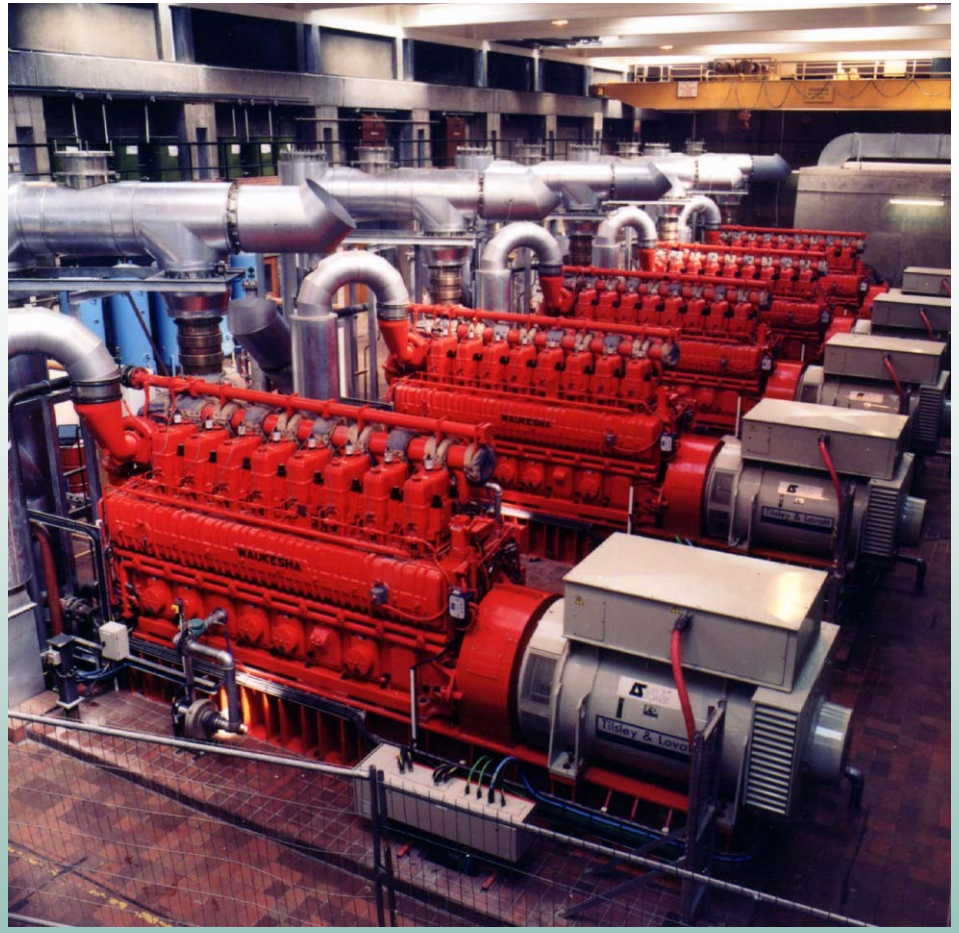
Natural Gas Reciprocating Engines Have High Efficiency and Low Electricity Costs, and Are An Important Part of Distributed Power Generation



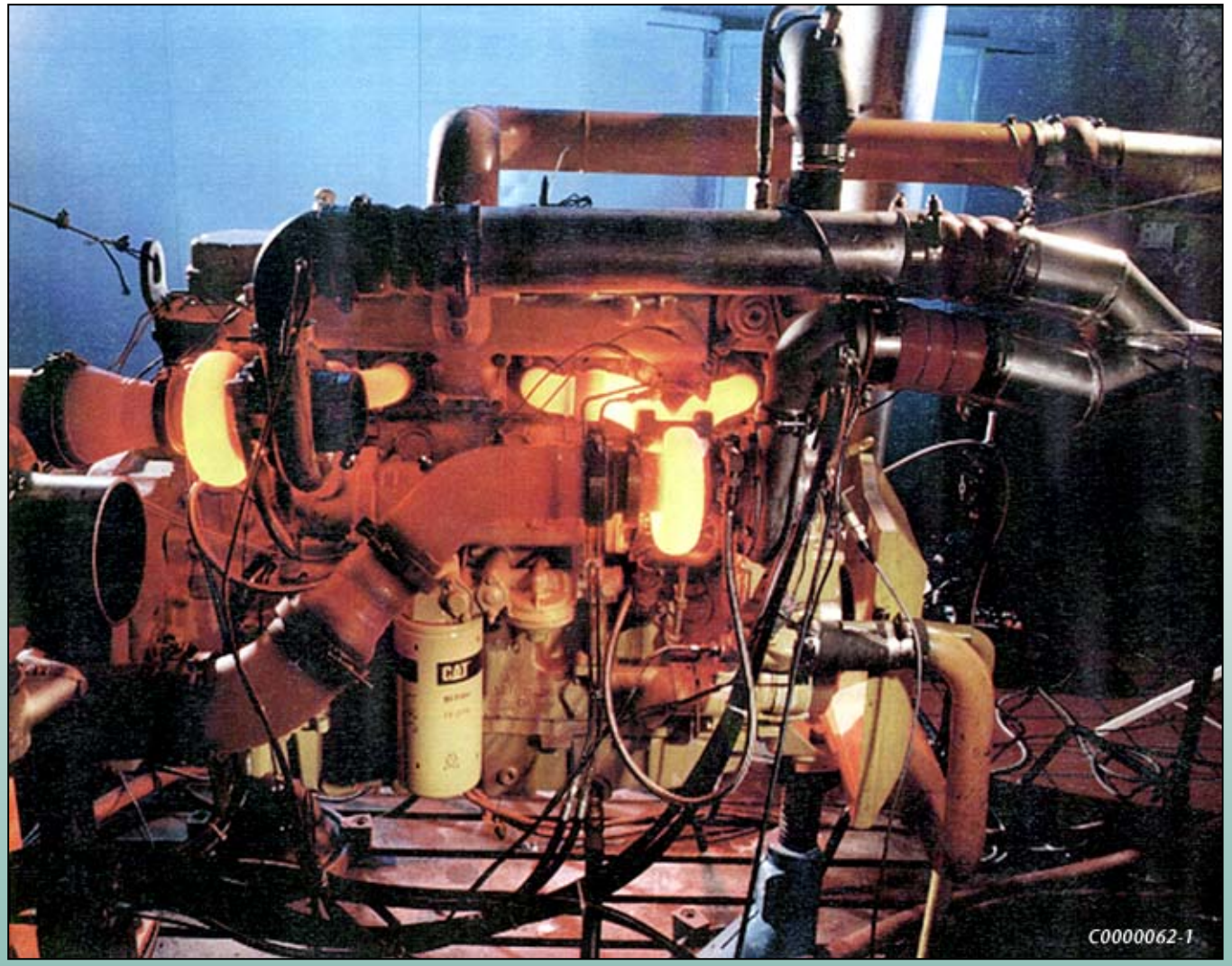
Waukesha Natural Gas Reciprocating Engine - Electric Generator Sets

ORNL Provides ARES With Almost 30y Expertise And Experience in Developing High-Performance Stainless Steels And Alloys

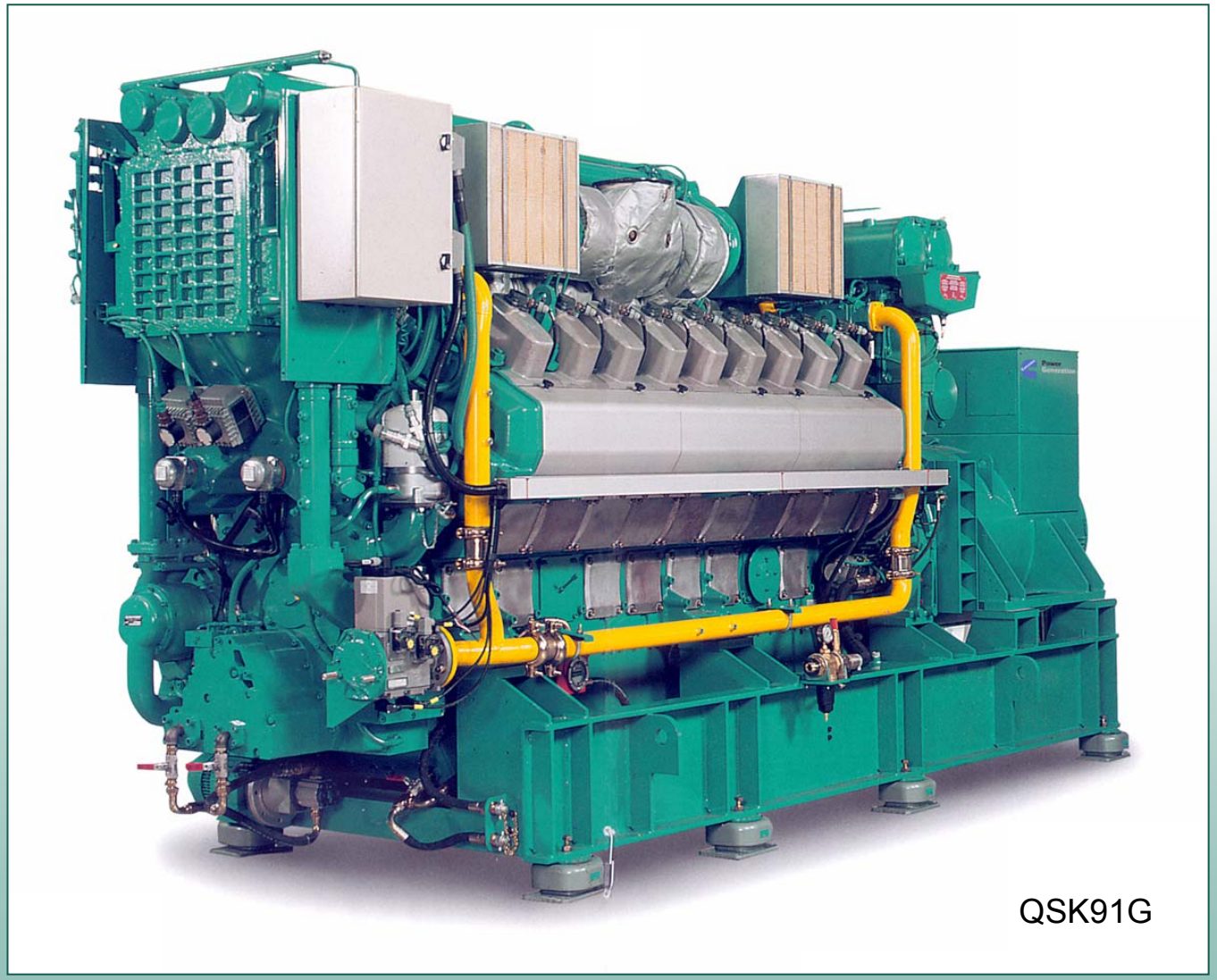
- Cast CN12 and CF8C – exhaust manifold, turbo-charger housing, and possibly exhaust valves

- Wrought 300 Series – Stainless Steels And Various Austenitic Stainless Alloys – fabricated exhaust manifolds, exhaust valves, and any other components where superalloys are considered as advanced replacement materials.

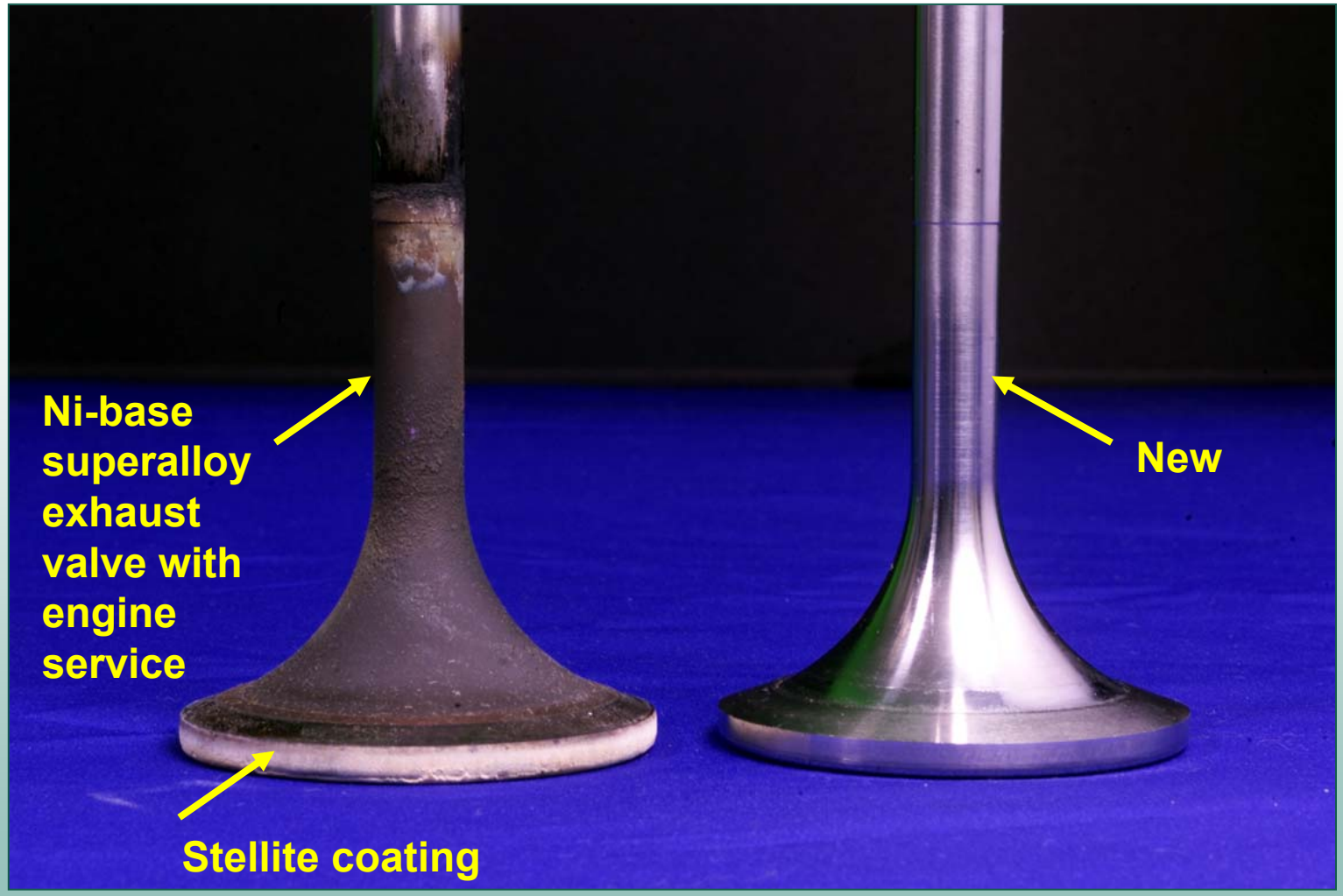
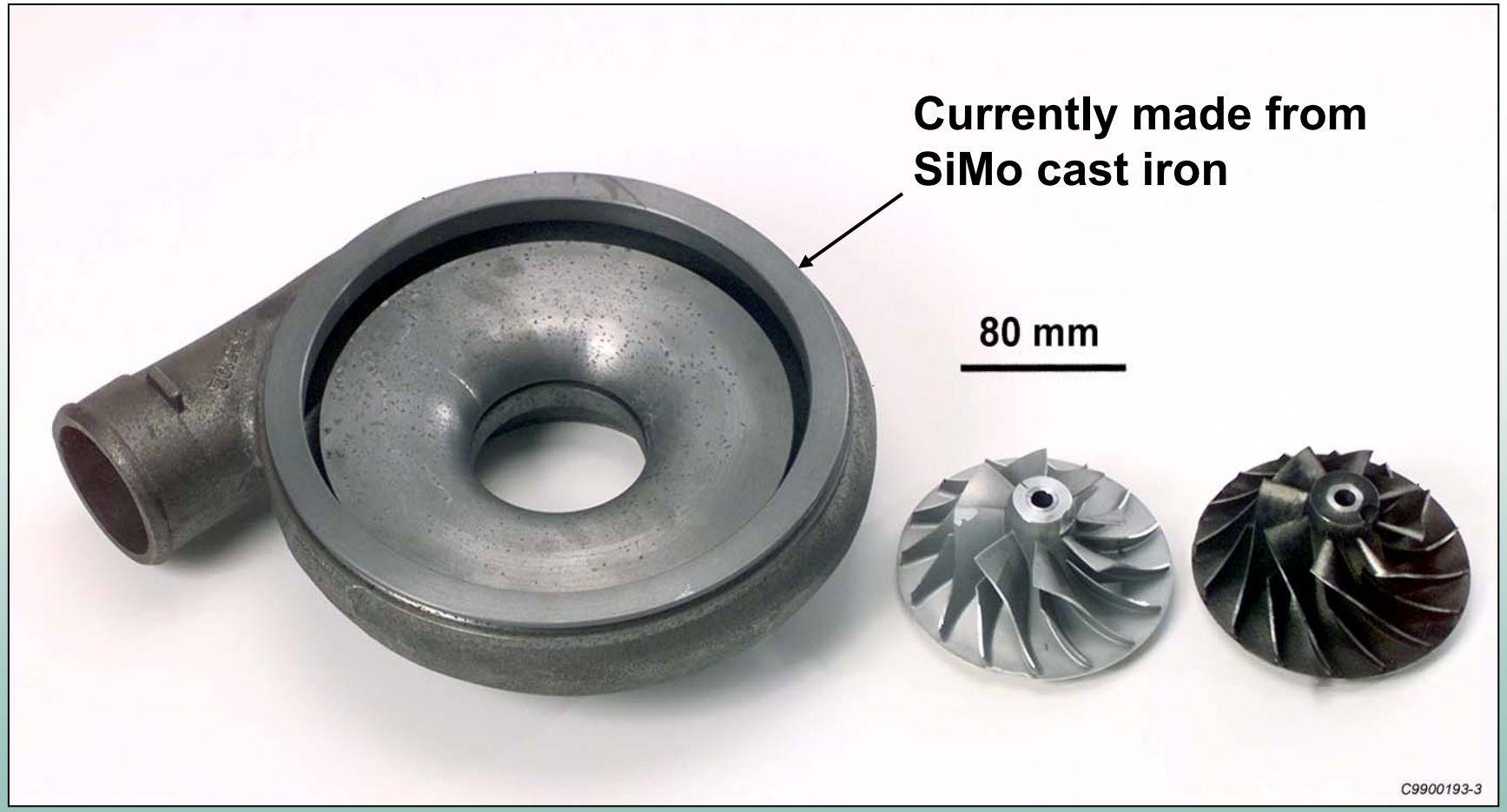
Advanced Diesel Engines Will Increase Performance Demands On Hot Components



Cummins Lean-Burn Natural Gas Reciprocating Engine and Electric Generator



Exhaust Valves Are Critical High-Temperature Components in ARES Engines



Advance Diesel Turbo-Charger Housing Could be Made From CAT/ORNL Modified CF8C