

CRC Project RW-108

Effect of Lead in Gasoline RFP Q&A

1. Many SULEV30 vehicles employ a hybrid powertrain where operation of the ICE can be grossly different than a “conventional” powertrain. Based on the request to use a down-sized, turbocharged, DI engine - should it be assumed that the candidate engine must come from a vehicle that meets SULEV30 with a conventional powertrain?

Yes, a vehicle that meets SULEV30 with conventional powertrain is desired. Start/stop cycles, lower exhaust temperatures, etc as found in HEV and PHEV powertrains do indeed expose the catalyst to a different operating environment. However, for the purpose of this project, a conventional powertrain is more appropriate. Note that the SULEV30 engine/catalyst combination used for this project is not required to be in current production; “production-intent” is acceptable also.

2. Vehicles that meet SULEV30 with a conventional powertrain tend to have smaller displacement engine (i.e. 1.5L TC, DI). There will be a phase-in period where more vehicles will need to achieve <30mg/mi NMOG+NO_x with larger displacement engines. Is there a preference to test with a small engine and ATS that currently achieves SULEV30 or use a larger displacement engine such as a 2.0L+ that in the near future would need to achieve SULEV30 or better (but currently does not)?

Preference is to conduct the testing on a smaller engine that currently achieves SULEV30.

3. IAV estimates that 1300-1400 gallons of Pb doped fuel is required per set of catalyst/sensor aging based on full completion of RAT-A. So with 4 different fuels that’s a total of nearly 6000 gallons of fuel including the base E10 fuel. Will CRC provide the test fuels?

It would be preferred that the proposal include fuel being obtained by the contractor.

4. What guidance is available from CRC to define the effect of concentrated Pb levels in an accelerated aging test to an equivalent 150,000 miles of real-world driving? Would a pre-study be considered or OEM support/guidance be available?

OEM guidance would be available, although a brief literature search would be appropriate. The latter can be included as a task in the proposal.

5. What is the expected project award date?

Approximately Within two months of receiving bids.

6. What is the desired project completion date?

By the end of 2019.

7. Are there any interim milestones, for reporting or otherwise that should be noted?

Monthly reporting, draft and final reporting requirements are described in the RFP. Occasionally project update conference calls may also be scheduled.