Figure 1: Certification Process

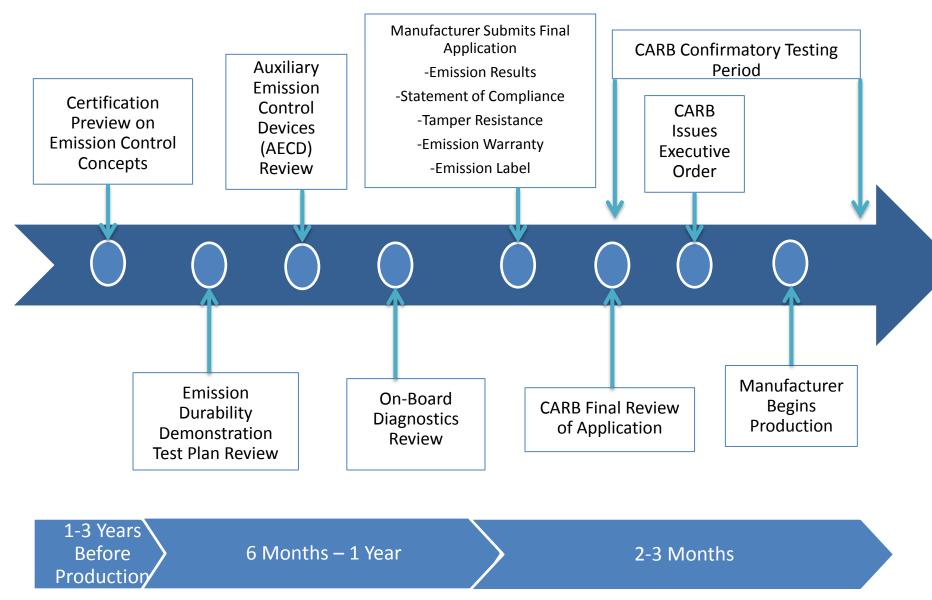


Figure 2: In-Use Programs Activities

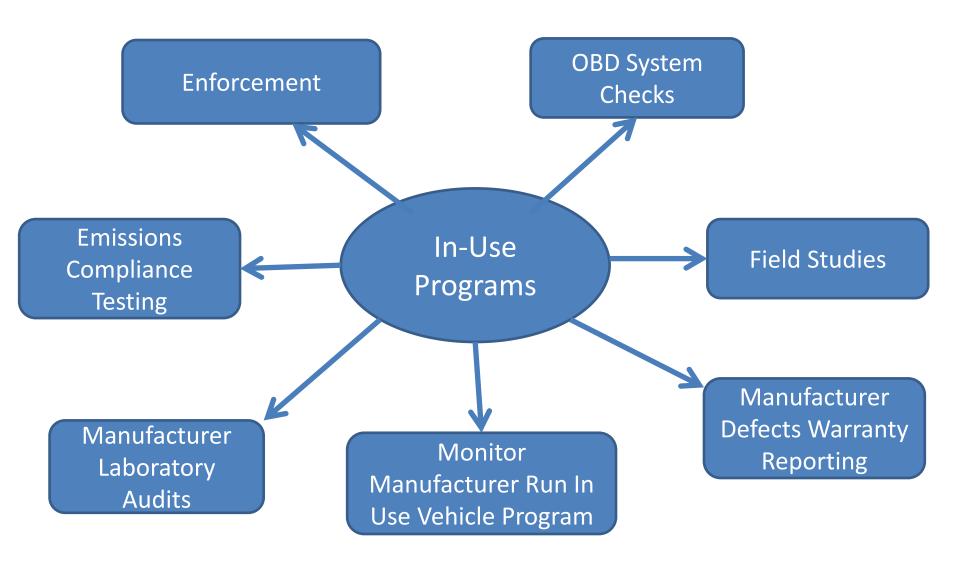


Figure 3: Chronology of CARB VW Issue

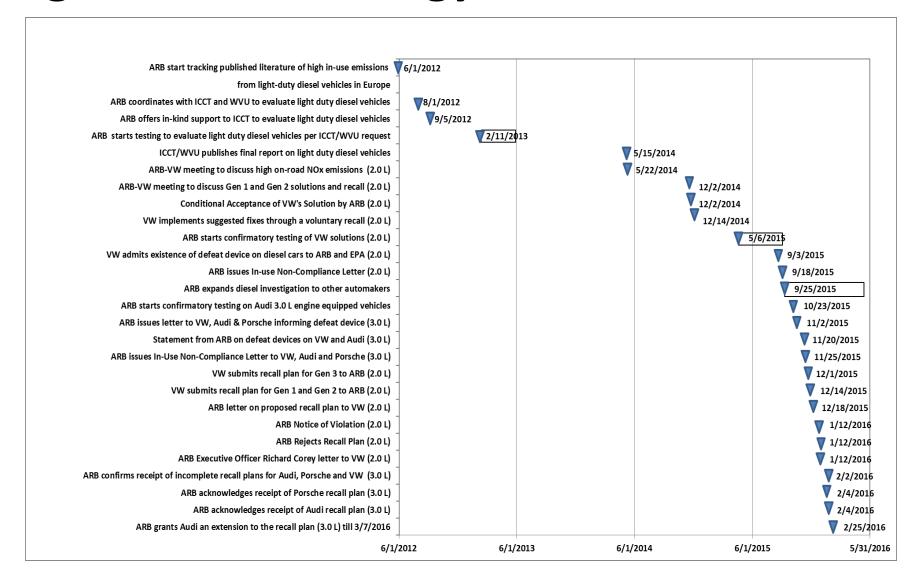


Figure 4: Program Enhancements Going Forward

- AECDs Expanded Review
- Evolution of OBD systems and data acquired/stored on vehicles for interrogation
- Special Test Cycles Deployment
 - Random and non-typical test cycles in the laboratory
- Expand Real-World/On the road testing
 - Remote Sensing Device Screening
 - Portable Emissions Measurement Systems (PEMS)
 - Possible regulatory changes
- Use tools above to narrow in on problem vehicles and coordinate testing with USEPA to broaden coverage