State of California
Air Resources Board

BOARD ITEM SUMMARY

ITEM # 20-13-3: Public Hearing to Consider Proposed Amendments to Enhanced Vapor Recovery Regulations

STAFF RECOMMENDATION:
Staff recommends that the California Air Resources Board (CARB or Board) adopt the proposed amendments to California Code of Regulations for the certification and test procedures for enhanced vapor recovery systems used at gasoline dispensing facilities (GDF).

DISCUSSION:
Since 1975, CARB has implemented and fined tuned vapor recovery regulations that control emissions from the storage and transfer of gasoline at GDFs. CARB staff is now proposing a suite of amendments to the EVR regulations that would improve cost-effectiveness, preserve emission reductions, and clarify some of the requirements for better regulatory certainty and enforceability.

CARB staff proposes amendments to the requirements for in-station diagnostics (ISD) systems that provide monitor in real-time vapor recovery system components and activate alarms for potential vapor recovery system malfunctions to ensure prompt repair. In 2009, CARB staff found that some GDFs were experiencing frequent ISD overpressure alarms during the wintertime that were not effective in detecting repairable equipment malfunctions. Since then, CARB staff collaborated with members of the California Air Pollution Control Officers Association (CAPCOA) and industry to conduct investigations and field studies to identify the primary causes of the excessive overpressure alarms. The investigations revealed that overpressure alarms were mainly attributed to the high volatility and evaporation rate of winter blend gasoline, and changes in newer vehicle fill pipe designs that result in a poor seal between the nozzle and vehicle fill pipe interface. Because overpressure alarms are not effective at detecting repairable equipment malfunctions, they result in response costs for GDF owners without reducing emissions.

CARB staff have evaluated the performance of the five currently certified nozzles and found they are all performing much better than existing standards. Therefore, CARB staff recommends lowering the standards to preserve emission reductions that are already occurring. Since all currently certified nozzles meet the proposed standard, all in-use nozzles can stay in place until end of useful life.

SUMMARY AND IMPACTS:
The proposed regulatory amendments would:

1. Eliminate ISD overpressure alarm criteria. The alarms are not effective at identifying repairable vapor recovery equipment problems, which results in GDF owners incurring alarm response costs with no concomitant air pollutant emissions reduction. In addition, ineffective alarms can lead to complacency and accidental clearing of other ISD alarms that are effective at identifying repairable problems, potentially leading to increased emissions.
2. Make the nozzle spillage standard more stringent to preserve the superior performance accomplished by currently certified nozzles and avoid backsliding.
3. Make minor technical changes to facilitate the use of modern communication and data storage technologies.
4. Make various administrative changes to clarify the EVR regulations for better regulatory certainty and enforceability.

CARB staff estimates net cost-savings of about $31.8 million to $97.9 million for GDF owners through 2030 from installing updated ISD software that eliminates overpressure alarms and associated alarm response costs. CARB staff estimates ISD manufacturers would have some net cost-savings and revenue increases, and other equipment manufacturers would have some costs, resulting from the other proposed amendments. Staff anticipates the potential costs and cost-savings would be fully passed on to GDF owners and operators who purchase their equipment, which could result in approximately $1.53 in additional cost to approximately $14.76 in cost-savings per impacted GDF through 2030, depending on the type of vapor recovery system installed. These potential passed-through costs and savings are considered negligible. Local and state agencies are estimated to experience net savings of about $54,400 and $2,000, respectively, through 2030.