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State of California
AIR RESOURCES BOARD

PUBLIC HEARING TO CONSIDER PROPOSED AMENDMENTS TO CERTIFICATION PROCEDURES FOR VAPOR RECOVERY SYSTEMS FOR ABOVEGROUND STORAGE TANKS AT GASOLINE DISPENSING FACILITIES

STAFF REPORT: INITIAL STATEMENT OF REASONS

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California Environmental Protection Agency
California Air Resources Board
Byron Sher Auditorium
1001 I Street
Sacramento, California 95814

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EXECUTIVE SUMMARY

California Air Resources Board (CARB or Board) staff are proposing to amend Phase II Enhanced Vapor Recovery (EVR) requirements for existing aboveground storage tanks (AST) at gasoline dispensing facilities (GDF). The amendments would clarify definitions and improve cost effectiveness of the Phase II EVR requirements based on annual gasoline throughput at AST GDFs. These GDFs are split between government and non-government owned, and include military, state, school, private business, agriculture, and retail facilities.

Since 1975, CARB has had a program in place to regulate air pollutant emissions from GDFs. Gasoline vapors contain reactive organic gases that, in the presence of sunlight, can react with other air pollutants to form ozone, a criteria air pollutant, and lead to smog formation. Gasoline vapors also contain benzene, which is a toxic air contaminant, as defined by CARB under Title 17 section 93001. In March 2000, CARB approved EVR regulations for GDFs equipped with underground storage tanks (UST). In June 2007, CARB approved EVR regulations for GDFs equipped with ASTs. EVR regulations established new standards for gasoline vapor recovery systems to reduce gasoline vapor emissions during storage and transfer of gasoline from the cargo tanker to the AST (Phase I EVR) and from the AST to the vehicle (Phase II EVR), and to increase reliability of vapor recovery components.

EVR regulations apply to both new and existing GDFs. Phase-in of EVR standards for GDFs with USTs started in 2001 and completed in 2010. For GDFs equipped with ASTs, phase-in of EVR standards started in 2009 and will continue into 2019. EVR regulation updates completed between 2001 and 2015 improved test procedures for gasoline vapor recovery system certifications, modified applicability requirements for GDF, and modified performance standards and implementation dates to reflect evolving technology. CARB certified pre-EVR Phase II vapor recovery systems to be at least 90 percent efficient in controlling gasoline vapor emissions during transfers of gasoline from the ASTs into vehicles, while the EVR regulations require certification of a gasoline vapor emission control efficiency of at least 95 percent.

CARB staff is now proposing AST EVR regulation amendments that would allow more time for some AST GDFs to install Phase II EVR equipment. In April 2015, CARB approved amendments to GDF applicability requirements to improve cost-effectiveness for Phase I EVR for AST GDFs. The 2015 amendments allowed the continued use of existing pre-EVR Phase I equipment on some ASTs past the existing GDFs upgrade date. The proposed amendments would allow smaller AST GDFs—those with lower annual gasoline throughputs and therefore lower emissions—to maintain their current pre-EVR Phase II systems until the end of useful life, rather than be required to install upgrades by March 13, 2019, as required by existing regulations. The result would be improved cost effectiveness for Phase II EVR implementation while retaining emission reductions for ASTs with higher annual gasoline throughputs, which have higher emissions. The cost effectiveness, cost per pound of emissions reduced, of the

proposed amendments is $6.48 per pound in 2019 and increases each year to $26.52 in 2024, at which point it is the same as the existing regulations.

The proposed amendments would provide financial benefits and no net increase in existing gasoline vapor emissions. The financial benefits consist of net cost-savings of about $1.3 million for businesses and government agencies that own GDFs equipped ASTs that are required to upgrade their equipment by state and local Air District Rules and have not yet done so. Further, the proposed amendments would allow more time for AST GDFs with smaller annual gasoline throughputs (480,000 gallons or less) and, by extension, fewer emissions as compared to AST GDFs with higher annual gasoline throughputs (over 480,000 gallons), to comply with Phase II EVR regulations, which will enable these smaller GDFs to better plan for the costs associated with the system upgrade. The proposed amendments would also have no significant effect on gasoline vapor emission reductions compared to existing regulations because the proposed amendments will not cause emissions to exceed the existing baseline of emissions from currently operating AST GDFs. Finally, the proposed amendments would improve regulatory consistency with the Phase I EVR regulations because GDFs will be allowed to continue the use of pre-EVR systems until the end of the systems' useful life if the GDFs fall below an annual gasoline throughput threshold.

Recommendation: Staff recommends that the Board adopt amendments to the California Code of Regulations (Appendix A) that incorporate by reference the proposed new and amended definitions and certification procedures (Appendices B and C).