

State of California  
AIR RESOURCES BOARD

Resolution 00-35

October 26, 2000

Agenda Item No.: 00-10-2

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (ARB or Board) to adopt standards, rules and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, section 41712 of the Health and Safety Code directs the Board to adopt regulations to achieve the maximum feasible reduction in volatile organic compounds (VOC) emitted by consumer products, if the Board determines that adequate data exist for it to adopt the regulations, and if the regulations are technologically and commercially feasible and necessary;

WHEREAS, pursuant to section 41712 of the Health and Safety Code, on November 8, 1989, the Board approved the Regulation for Reducing Volatile Organic Compound Emissions from Antiperspirants and Deodorants (title 17, California Code of Regulations (CCR), sections 94500-94506.5; the "Antiperspirant and Deodorant Regulation");

WHEREAS, the Antiperspirant and Deodorant Regulation established standards for antiperspirants and deodorants, including a zero percent high volatility organic compound (HVOC) limit for aerosol antiperspirants which had an effective date of January 1, 1995;

WHEREAS, the Antiperspirant and Deodorant Regulation allowed each manufacturer the option of delaying compliance with the zero percent HVOC limit until January 1, 1999, if the manufacturer submitted a "compliance plan" documenting their efforts to develop complying aerosol products;

WHEREAS, on November 15, 1994, the Board adopted the California State Implementation Plan for Ozone (SIP) to satisfy the requirements of the federal Clean Air Act;

WHEREAS, on February 14, 1995, the Antiperspirant and Deodorant Regulation was approved by the United States Environmental Protection Agency (U.S. EPA) as a component of the SIP;

WHEREAS, at a September 28, 1995, public hearing, the Board approved amendments to the Antiperspirant and Deodorant Regulation which, among other things, established interim limits of 40 percent HVOC for aerosol antiperspirants and 14 percent HVOC for aerosol deodorants; these limits became effective on January 1, 1997, and applied only to manufacturers operating under approved compliance plans;

WHEREAS, at a June 26, 1997, public hearing, staff reported to the Board that aerosol manufacturers were making satisfactory progress toward complying with the zero percent HVOC limit;

WHEREAS, during further development of zero percent HVOC aerosol antiperspirants, manufacturers discovered a technical problem that was causing unstable formulations and can corrosion;

WHEREAS, through further research it was discovered that a chemical reaction was occurring between hydrofluorocarbon-152a (HFC-152a) and aluminum chlorohydrate which led to the formation of acetaldehyde, a chemical identified as a Toxic Air Contaminant by the ARB pursuant to sections 39660-39662 of the Health and Safety Code;

WHEREAS, to provide time to research and overcome the technical problem, in 1998 five aerosol antiperspirant manufacturers applied for and were granted variances from compliance with the zero percent HVOC limit; these variances will expire on January 1, 2001;

WHEREAS, despite considerable research, no manufacturer has been able to successfully formulate a zero percent HVOC aerosol antiperspirant, and such products are not currently being sold in California;

WHEREAS, the proposed amendments to the Antiperspirant and Deodorant Regulation would repeal the zero percent HVOC limit and reinstate the 40 percent HVOC limit for aerosol antiperspirants, effective January 1, 2001;

WHEREAS, the proposed amendments to the Antiperspirant and Deodorant Regulation also clarify certain regulatory provisions, streamline reporting requirements, and modify the type of formulation information that manufacturers must report to the ARB;

WHEREAS, the California Environmental Quality Act (CEQA) and Board regulations require that no project that may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of Chapter 3.5 (commencing with section 11340), Part 1, Division 3, Title 2 of the Government Code);

WHEREAS, the Board staff has consulted with the U.S. EPA regarding consumer product regulations promulgated by other state and local governments as provided in section 183(e) of the federal Clean Air Act;

WHEREAS, the Board finds that:

A chemical reaction takes place between HFC-152a and aluminum chlorohydrate in aerosol antiperspirants, which leads to the formation of acetaldehyde, a chemical identified by the ARB as a Toxic Air Contaminant;

At present, HFC-152a is the only non-VOC propellant available to achieve the zero percent HVOC limit, and aluminum chlorohydrate is the only active ingredient approved by the United States Food and Drug Administration for use in aerosol antiperspirants;

Aerosol antiperspirants in which this chemical reaction occurs are not technologically and commercially feasible;

Manufacturers have made diligent efforts and have explored all feasible avenues to develop zero percent HVOC aerosol antiperspirants, but have not been able to overcome the technical problems identified above;

Eliminating the zero percent HVOC limit is necessary to ensure that technologically and commercially feasible aerosol antiperspirants continue to be available to California consumers;

Based on current information, an HVOC limit of 40 percent is presently the lowest HVOC limit for aerosol antiperspirants that is technologically and commercially feasible;

The amendments to the HVOC limit are necessary to prevent the elimination of the aerosol product form for antiperspirants;

The amendments will result in an increase in VOC emissions, and a SIP shortfall, of about 1 ton per day statewide in 2001 and 1.3 tons per day statewide in 2010;

The SIP shortfall created by the increase in VOC emissions will be addressed in 2001 when ARB staff completes a comprehensive revision of the State's long-range strategy for achieving the health based ambient air quality standards;

Other proposed amendments to the Antiperspirant and Deodorant Regulation will clarify certain provisions and streamline the reporting requirements, while still allowing staff to monitor technological advances to determine if further VOC reductions are feasible in the future;

The amendments to the consumer products regulation are authorized by California law and satisfy the requirements of section 41712 of the Health and Safety Code;

There exists adequate data to support the adoption of the amendments and to establish that the amendments are necessary, and are commercially and technologically feasible;

The economic impacts of the amendments have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the Initial Statement of Reasons;

The proposed amendments should have an overall positive economic impact and result in cost savings for all antiperspirant and deodorant manufacturers; and

The reporting requirements of the amendments which apply to businesses are necessary for the health, safety, and welfare of the people of the State; and

WHEREAS, pursuant to the requirements of the California Environmental Quality Act and the Board's regulations, the Board further finds that:

Increasing the HVOC limit for aerosol antiperspirants from zero percent to 40 percent will result in an increase of about 1 ton per day of VOC emissions statewide in 2001 (and an increase of 1.3 tons per day statewide in 2010), as compared to the emission reductions that would be achieved from implementing the zero percent HVOC limit;

These excess VOC emissions will result in an adverse environmental impact on ground level ozone concentrations;

Increasing the HVOC limit to 40 percent is necessary to preserve the technological and commercial feasibility of the aerosol antiperspirant standard, to ensure that safe aerosol antiperspirants continue to be available to California consumers, and to minimize the adverse economic impacts on manufacturers of aerosol antiperspirants;

The considerations identified above override any adverse environmental impacts that may occur from the amendments;

No feasible alternatives or mitigation measures have been identified that would reduce the excess VOC emissions and adverse environmental impact on ground level ozone concentrations, while at the same time providing the benefits described above; and

Other than the excess VOC emissions and adverse impact on ground level ozone concentrations, no other potential adverse environmental impacts will occur as a result of these amendments.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby adopts the amendments to sections 94502 and 94504, title 17, CCR, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to continue to: (1) monitor technical advances and evaluate all feasible cost effective emission reduction strategies to further reduce VOC emissions from antiperspirants and deodorants, and (2) report to the Board within one year on the results of this technical evaluation, and on staff's recommendations for future action.

BE IT FURTHER RESOLVED that, following approval by the Office of Administrative Law, the Board directs the Executive Officer to submit the amendments to the Antiperspirant and Deodorant Regulation to the U.S. EPA for inclusion in the SIP.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to include in the SIP revision any additional documentation identified as necessary for approvability under the federal Clean Air Act and the U.S. EPA regulations, and to work with the U.S. EPA to ensure that the amendments to the Antiperspirant and Deodorant Regulation are approved as a SIP revision.

I hereby certify that the above is a true and correct copy of Resolution 00-35, as adopted by the Air Resources Board.

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Marie Kavan, Clerk of the Board

Resolution 00-35

October 26, 2000

**Identification of Attachments to the Board Resolution**

**Attachment A:** Proposed amendments to the Antiperspirant and Deodorant Regulation: sections 94502 and 94504, title 17, California Code of Regulations, as set forth in Appendix A to the Initial Statement of Reasons.