

BOARD MEETING DATE: April 3, 2026

AGENDA NO. 31

PROPOSAL: Determine That Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants, Is Exempt from CEQA; and Amend Rule 1144

SYNOPSIS: Rule 1144 establishes VOC limits for metalworking fluids and direct-contact lubricants. The California Office of Environmental Health Hazard Assessment determined that two compounds, *para*-Chlorobenzotrifluoride (pCBtF) and *tert*-Butyl Acetate (t-BAc), have carcinogenic health effects. Both pCBtF and t-BAc could be used in metalworking fluids and/or direct-contact lubricants. Proposed Amended Rule 1144 includes a phase-out timeline to cease the sale and use of pCBtF and t-BAc based products as well as sell and use-through provisions.

COMMITTEE: Stationary Source, February 20, 2026, Reviewed

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

1. Determining that Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants, is exempt from the requirements of the California Environmental Quality Act; and
2. Amending Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants.

Wayne Natri
Executive Officer

SLR:MK:MM:CN:JE

Background

Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants was adopted on March 6, 2009, and was amended on July 9, 2010. Rule 1144 was developed to reduce VOC emissions from the use of metalworking fluids and direct-contact lubricants in industrial facilities. Approximately 3,300 facilities, most of which do not have South Coast AQMD-issued permits, use metalworking fluids and direct-contact lubricants subject to Rule 1144. Facilities conducting machine finishing, machine tooling, and other metalworking and metal-forming operations use these metalworking fluids and direct-

contact lubricants to facilitate the working, protecting, and modification of metal products and parts during manufacture and assembly. These facilities operate in various industries such as aerospace, machine shops, and steel mills.

To achieve VOC emission reductions, many manufacturers of VOC containing materials subject to South Coast AQMD rules including various coatings and solvent cleaners rely on solvents that are exempt from the definition of a VOC. These exempt solvents have low photochemical reactivity and therefore do not significantly contribute to the formation of ground-level ozone. In April 2017, the Stationary Source Committee recommended a precautionary approach when evaluating exempt compounds with potential toxic endpoints and removing the exempt status for any compound with an established toxic endpoint. In 2018 and 2020, respectively, the California Office of Environmental Health Hazard Assessment determined that the exempt compounds pCBtF and t-BAc have carcinogenic toxic endpoints. In August 2025, staff distributed a manufacturer survey and follow-up questionnaire to collect metalworking fluid and direct-contact lubricant data subject to Rule 1144 and held individual meetings with stakeholders. Responses received representing the majority of the industry manufacturers showed that pCBtF and t-BAc were not being used in metalworking fluids or direct-contact lubricants.

Proposed Amended Rule (PAR) 1144 partially implements Control Measure CTS01 – Further Emission Reductions from Coatings, Solvents, Adhesives, and Lubricants (CTS-01) of the 2022 Air Quality Management Plan (AQMP) and addresses toxicity concerns with pCBtF and t-BAc.

Proposed Amendments

PAR 1144 will phase out the use of pCBtF and t-BAc in metalworking fluids and direct-contact lubricants while maintaining existing VOC limits. The feedback received from the manufacturer survey and questionnaire indicated that, at least for those that responded, no products with pCBtF or t-BAc were being manufactured. However, since responses were not received from a few manufacturers and to ensure no new products with pCBtF and t-BAc are developed, PAR 1144 establishes an end date of July 1, 2027, for manufacture of any metalworking fluid or direct-contact lubricant containing pCBtF or t-BAc. Following this final manufacturing period, there is a one-year sell-through period and then an additional one-year use-through period. These additional phases ensure that manufacturers, distributors, and end users are provided with adequate time to transition to products without pCBtF or t-BAc, if there are products containing pCBtF and/or t-BAc being sold or developed. After this phase-out timeline, Rule 1144 products would be prohibited from containing pCBtF and/or t-BAc in excess of 0.01 percent by weight.

Other amendments to PAR 1144 include clarifications to ensure enforceability and harmonize with other South Coast AQMD VOC rules, including a provision for lowest

applicable VOC limit for metalworking fluids or lubricants intended for use in multiple categories. In addition, a prohibition on Rule 1144 products containing any Group II Exempt Compound beyond 0.01 percent by weight was added.

Public Process

PAR 1144 was developed through a public process. Two Working Group meetings were held on August 12, 2025 and November 20, 2025. The Working Group Meetings included a variety of stakeholders such as metalworking fluid and direct-contact lubricant manufacturers, affected businesses, public agencies, environmental and community groups, and consultants. A Public Workshop was held on January 28, 2026.

Emission Reductions

PAR 1144 will phase out the use of two toxic solvents, pCBtF and t-BAc, with no changes to existing VOC content limits for metalworking fluids and direct-contact lubricants. As a result, there are no increases or additional VOC emission reductions expected from the proposed amendments.

Key Issues

Throughout the rulemaking process, staff worked with stakeholders to resolve key issues. Staff is not aware of any remaining key issues.

California Environmental Quality Act (CEQA)

Pursuant to CEQA Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1144) is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 and is included as Attachment H to this Board Letter. If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation.

Socioeconomic Impact Assessment

A socioeconomic impact assessment is not required by Health and Safety Code Sections 40440.8 and 40728.5 because PAR 1144 will not significantly affect air quality or emission limitations, and thus, will not result in significant socioeconomic impacts.

AQMP and Legal Mandate

Pursuant to Health and Safety Code Section 40460(a), South Coast AQMD is required to adopt an AQMP demonstrating compliance with all federal regulations and standards. South Coast AQMD must also adopt rules and regulations that carry out the objectives of the AQMP. PAR 1144 partially implements 2022 AQMP Control Measure CTS-01 by phasing out pCBtF and t-BAc without increasing VOC emissions.

Implementation and Resource Impacts

Existing staff resources are adequate to implement the proposed amendments.

Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Proposed Amended Rule 1144
- G. Final Staff Report
- H. Notice of Exemption from CEQA
- I. Board Meeting Presentation

ATTACHMENT A

SUMMARY OF PROPOSAL

Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants

Phase out of *para*-Chlorobenzotrifluoride (pCBtF) and *tert*-Butyl Acetate (t-BAc)

- Two exempt compounds have been determined to have toxic endpoints
- PAR 1144 proposes to phase out those solvents as soon as practicable to reduce toxic exposure

pCBtF and t-BAc Prohibition Schedule

- Prohibits greater than 0.01 percent by weight of pCBtF and t-BAc in metalworking fluids and direct-contact lubricants after the following dates:

Final Manufacture Date	Final Sell-Through Date	Final Use-Through Date
July 1, 2027	July 1, 2028	July 1, 2029

Other Requirements

- Prohibits metalworking fluids and direct-contact lubricants that exceed 0.01 percent by weight of Group II exempt compounds after July 1, 2027
- Requires metalworking fluids and direct-contact lubricants marketed for multiple uses to comply with the most stringent VOC limit

ATTACHMENT B

KEY ISSUES AND RESPONSES

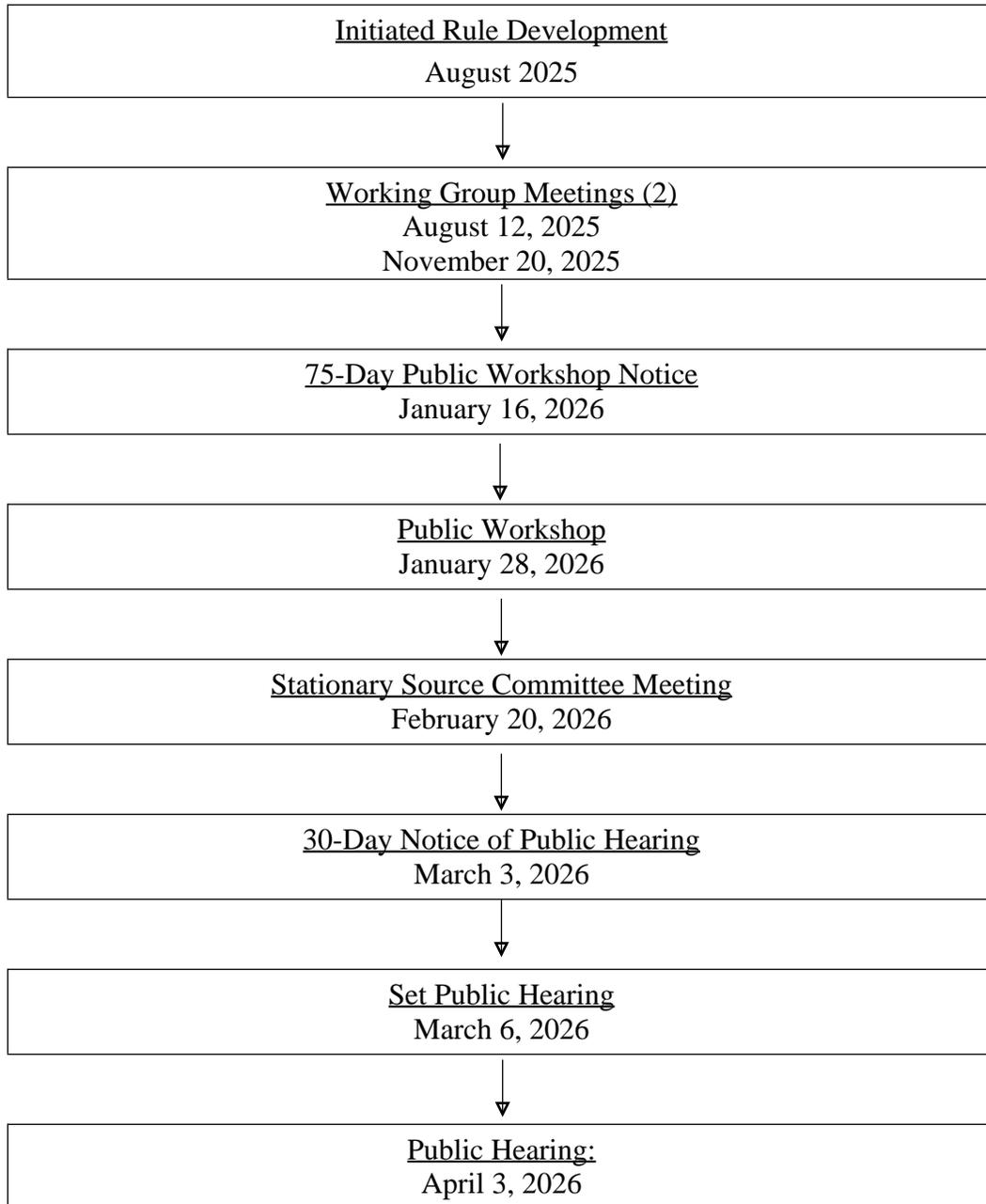
Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants

Throughout the rulemaking process, staff worked with stakeholders to resolve key issues. Staff is not aware of any key remaining issues.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants



Eight (8) months spent in rule development
Two (2) Working Group Meetings
One (1) Public Workshop
One (1) Stationary Source Committee Meeting

ATTACHMENT D

KEY CONTACTS LIST

Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants

- Castrol
- Cimcool Industrial Products LLC
- Coolant Management Services
- Far West Oil Company, Inc.
- Hydrotex LLP
- Independent Lubricant Manufacturers Association (ILMA)
- Metalloid Corp.
- Oemeta Inc.
- Phillips 66 Lubricants
- Protect All, Inc
- QA Lubricants Inc.
- Quaker Houghton
- Raymond Regulatory Resources (3R), LLC
- RichardsApex Inc.
- Rosemead Oil Products, Inc.
- Seymour of Sycamore
- WS Dodge Oil Company

ATTACHMENT E

RESOLUTION NO. 26-____

A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) determining that Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants, is exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the South Coast AQMD Governing Board amending Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants.

WHEREAS, the South Coast AQMD Governing Board finds and determines that Proposed Amended Rule 1144 is considered a “project” as defined by CEQA; and

WHEREAS, the South Coast AQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l) and has conducted a CEQA review and analysis of the proposed project pursuant to such program (South Coast AQMD Rule 110); and

WHEREAS, the South Coast AQMD Governing Board finds and determines that after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA, that Proposed Amended Rule 1144 is exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that it can be seen with certainty that there is no possibility that the proposed project (Proposed Amended Rule 1144) may cause a significant adverse effect on the environment because: 1) no change in VOC emissions is expected relative to baseline conditions; 2) compliant formulations that do not contain pCBtF and t-BAc are commercially available; and 3) the sell-through and use-through provisions provide sufficient time to find suitable replacements, which will prevent stranded assets and the generation of waste. Therefore, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption; and

WHEREAS, the South Coast AQMD staff has prepared a Notice of Exemption for the proposed project, that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, Proposed Amended Rule 1144 and supporting documentation, including but not limited to, the Notice of Exemption, the Final Staff Report, and the Board Letter were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, as well as has

taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, the South Coast AQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (Section 30.5(4)(D)(i) of the Administrative Code), that no modifications have been made to Proposed Amended Rule 1144 since Notice of Public Hearing was published that are so substantial as to significantly affect the meaning of the proposed amended rule within the meaning of Health and Safety Code Section 40726 because: (a) the changes do not impact emission reductions, (b) the changes do not affect the number or type of sources regulated by the rule, (c) the changes are consistent with the information contained in the Notice of Public Hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because the proposed project is exempt from CEQA; and

WHEREAS, Proposed Amended Rule 1144 will not be submitted for inclusion into the State Implementation Plan; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing, in the rulemaking record, and in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has determined that a need exists to amend Rule 1144 to prohibit the use of two solvents from metalworking fluids and direct-contact lubricants, pCBtF and t-BAc, that are determined to have carcinogenic health effects, by the Office of Environmental Health Hazard Assessment (OEHHA) and to partially implement the 2022 AQMP Control Measure CTS-01; and

WHEREAS, the South Coast AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40001, 40440, 40702, 40725 through 40728, 41508; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1144 is written and displayed so that its meaning can be easily understood by persons directly affected by it; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1144 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1144 does not impose the same requirements as any existing state or federal regulations, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD; and

WHEREAS, the South Coast AQMD Governing Board, in amending Rule 1144, references the following statute which the South Coast AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 39002, 40001, 40702, 40440(a), 40725 through 40728.5, and federal Clean Air Act Sections 110, 172, and 182 (e); and

WHEREAS, the South Coast AQMD Governing Board has determined that no socioeconomic impact assessment is required by Health and Safety Code Sections 40440.8 and 40728.5 because Proposed Amended Rule 1144 does not significantly affect air quality or emissions limitations and thus, would not result in significant socioeconomic impacts; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1144 includes neither new Best Available Retrofit Control Technology (BARCT) requirements nor new feasible measures pursuant to Health and Safety Code Section 40914; therefore, the requirements to conduct the analysis of cost-effectiveness and incremental cost-effectiveness as set forth in the Health and Safety Code Section 40920.6 are not applicable; and

WHEREAS, Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and the South Coast AQMD's comparative analysis of Proposed Amended Rule 1144 is included in the Final Staff Report; and

WHEREAS, the South Coast AQMD staff conducted a Public Workshop regarding Proposed Amended Rule 1144 on January 28, 2026; and

WHEREAS, the Public Hearing has been properly noticed in accordance with all provisions of Health and Safety Code Sections 40725 and 40440.5; and

WHEREAS, the South Coast AQMD Governing Board has held a Public Hearing in accordance with all provisions of state and federal law; and

WHEREAS, the South Coast AQMD Governing Board specifies the Planning, Rule Development, and Implementation Manager overseeing the rule development for Proposed Amended Rule 1144 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed project is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

NOW, THEREFORE BE IT RESOLVED, that the South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. This information has been presented to the South Coast AQMD Governing Board, whose members exercised their independent judgment and reviewed, considered, and approved the information therein prior to acting on the proposed project; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1144 as set forth in the attached, and incorporated herein by reference.

DATE: _____

CLERK OF THE BOARDS

ATTACHMENT F

(Adopted March 6, 2009)(Amended July 9, 2010)(Amended TBD)

PROPOSED AMENDED RULE 1144 METALWORKING FLUIDS AND DIRECT-CONTACT LUBRICANTS

[RULE INDEX TO BE ADDED AFTER RULE ADOPTION]

(a) Purpose

The purpose of Rule 1144 is to reduce ~~volatile organic compound~~Volatile Organic Compound (VOC) emissions from the use of ~~metalworking fluids~~Metalworking Fluids and ~~direct-contact lubricants~~Direct-Contact Lubricants at industrial facilities.

(b) Applicability

The rule applies to all persons who use ~~metalworking fluids~~Metalworking Fluids and ~~direct-contact lubricants~~Direct-Contact Lubricants on products and parts during manufacture and assembly; and all manufacturers and suppliers who supply, sell, or offer for sale ~~metalworking fluids~~Metalworking Fluids and ~~direct-contact lubricants~~Direct-Contact Lubricants for use at industrial facilities. This rule shall apply to all VOC containing fluids used for metalworking including metal removal, metal forming, metal treating or lubricating operations where the ~~metalworking fluid~~Metalworking Fluid or ~~direct-contact lubricant~~Direct-Contact Lubricant comes into direct contact with products and parts including, but not limited to, blanking, broaching, coining, cutting, drilling, drawing, forming, forging, grinding, heading, honing, ~~lapping~~Lapping, marquenching, milling, piercing, quenching, roll forming, rolling, stamping, tapping, threading, turning and wire drawing. The rule also applies to VOC containing fluids used for metal protection, including rust and corrosion prevention and inhibition, during the manufacture and assembly of products and parts. ~~The provisions of this rule shall not apply to repair, maintenance or research operations.~~

(c) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) ASSEMBLED AIRCRAFT is any machine that is a complete vehicle, assembly of parts at an aircraft assembly facility or major partial section including wheel wells, fuselage sections, pressure decks, wings, blades or cockpit, designed to travel through the air, without leaving the earth's

atmosphere, including airplanes, balloons, dirigibles, helicopters and missiles.

- (2) DIRECT-CONTACT LUBRICANT is a fluid that comes into direct contact with the product or part during ~~manufacturing~~ Manufacturing or assembly and is used to reduce friction and to prolong the life of machine tools and machinery. A ~~direct-contact lubricant~~ Direct-Contact Lubricant is not a ~~metal-forming fluid~~ Metal Forming Fluid and is not a ~~metal-removal fluid~~ Metal Removal Fluid.
- (3) EXEMPT COMPOUND is as defined in Rule 102 – Definition of Terms.
- (4) GRAMS OF VOC PER LITER OF MATERIAL is the weight of VOC per volume of material and can be calculated by the following equation:

$$\frac{\text{Grams of VOC per liter} \text{ Liter of material \text{ Material = } W_s - W_w - W_{es}}{V_m}$$

Where: W_s = Weight of volatile compounds in grams
 W_w = Weight of water in grams
 W_{es} = Weight of ~~exempt compounds~~ Exempt Compounds in grams
 V_m = Volume of material in liters

- (5) LAPPING is a ~~manufacturing~~ Manufacturing method that employs particles of an abrasive material, suspended in a liquid carrier, between rotating plates.
- (6) MANUFACTURING is the use of tools and labor to make things for sale.
- (7) METAL FORMING FLUID is a fluid used at the tool and workpiece interface to facilitate the flow of metal over the tool and to extend the life of the tool. -Common metal forming operations include, but are not limited to, blanking, coining, drawing, forming, forging, heading, piercing, roll forming, stamping and wire drawing.
- (8) METAL PROTECTING FLUID is fluid that inhibits or prevents the corrosion of metal surfaces. -It is applied independently of any other metalworking, lubricating or cleaning application.
- (9) METAL REMOVAL FLUID is a fluid used at the tool and workpiece interface to facilitate the removal of metal from the part, cool the part and tool, extend the life of the tool, and to flush away chips and debris. Common metal removal operations include, but are not limited to,

broaching, cutting, drilling, grinding, honing, ~~lapping~~Lapping, milling, tapping, threading and turning.

- (10) METAL TREATING FLUID is a fluid used to remove heat from metal parts, affect their hardness, and/or change the grain structure of the metal. Common metal treating operations include, but are not limited to, marquenching and quenching.
- (11) METALWORKING FLUID is a fluid that facilitates operations involving the working, protecting or modification of metals, including metal forming, protecting, treating and removal, and may consist of straight oils, emulsifiable oils and synthetic and semi-synthetic fluids.
- (12) MILITARY SPECIFIED PRESERVATIVE is a preventative or protecting fluid qualified under military specification and used in a military application.
- (13) PRECISION METAL REMOVAL FLUID is a fluid used for carbide grinding machine tools, where the manufacturer of the machine tool specifies the viscosity of the fluid, or for machining of aluminum or magnesium in single or multiple spindle automatic machines.
- (14) SINKER ELECTRICAL DISCHARGE MACHINING (EDM) is a method of removing material by a series of rapid recurring electric arcing discharges between an electrode and the workpiece, in the presence of an energetic electric field, in an insulating oil.
- (15) SPACE VEHICLE is a vehicle designed to travel beyond the earth's atmosphere.
- (16) SOLICIT is to require for use or to specify, by written or oral contract.
- (17) SUPER COMPLIANT MATERIAL is any material containing 50 grams or less of VOC per liter of material.
- (18) VANISHING OIL is a ~~direct-contact lubricant~~Direct-Contact Lubricant or metalworking fluid with a flash point less than 200°F (93°C).
- (19) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102—Definition of Terms.

(d) Requirements

(1) VOC Content

(A) A person shall not use or ~~solicit~~Solicit the use of any ~~metalworking fluid~~ Metalworking Fluid or ~~direct-contact lubricant~~Direct-Contact

Lubricant that has a VOC content in excess of the limits contained in Table A of this subparagraph:

Table A – Fluid Categories and VOC Limits

FLUID	EFFECTIVE 1/1/2010	EFFECTIVE 1/1/2011	EFFECTIVE 1/1/2012
	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(A) Vanishing Oil	50 (0.42)		50 (0.42)
(B) Metalworking Fluid			
(i) Metal Forming			75 (0.63)
(ii) Metal Removal			
(a) General			75 (0.63)
(b) Precision Metal Removal			130 (1.08)
(iii) Metal Treating			75 (0.63)
(iv) Metal Protecting			
(a) General	300 (2.50)		50 (0.42)
(b) Military Specified Preservative		340 (2.83)	340 (2.83)
(C) Direct-Contact Lubricant			50 (0.42)

(B) If anywhere on the container of any Metalworking Fluid or Direct-Contact Lubricant; on any sticker or label affixed thereto; or in any sales, advertising, or technical literature, any representation or information indicates the fluid or lubricant may be used, or is suitable for use, in more than one category listed in Table A, then the lowest applicable VOC limit shall apply.

(2) Prohibitions of Sale

(A) No person shall manufacture for use, offer for sale, sell, or distribute ~~directly to a person any metalworking fluid~~ Metalworking Fluid or

~~direct-contact lubricant~~ Direct-Contact Lubricant for use in the District-South Coast Air Quality Management District (South Coast AQMD) which, at the time of sale or manufacture, contains more VOC per liter of material after recommended dilution, ~~and after the effective date,~~ as listed in Table A.

~~(B) — The prohibition of sale shall not apply to any manufacturer or supplier of metalworking fluid or direct-contact lubricant provided the product was sold to an independent distributor that was informed in writing by the manufacturer or supplier that the metalworking fluid or direct-contact lubricant is not to be used in the South Coast Air Quality Management District.~~

~~(C) — The prohibition of sale shall not apply to any manufacturer or supplier of metalworking fluid or direct-contact lubricant collected and directed to an emission control system pursuant to subdivision (e).~~

(B) No person shall manufacture any Metalworking Fluid or Direct-Contact Lubricant for use within South Coast AQMD containing more than 0.01 percent by weight of *para*-Chlorobenzotrifluoride (pCBtF, Chemical Abstracts Service Registration Number 98-56-6) and/or *tert*-Butyl Acetate (t-BAc, Chemical Abstracts Service Registration Number 540-88-5) after July 1, 2027.

(C) No person shall supply, offer for sale, sell or distribute any Metalworking Fluid or Direct-Contact Lubricant for use within South Coast AQMD containing more than 0.01 percent by weight of pCBtF and/or t-BAc after July 1, 2028.

(D) No person shall use any Metalworking Fluid or Direct-Contact Lubricant within South Coast AQMD containing more than 0.01 percent by weight of pCBtF and/or t-BAc after July 1, 2029.

(E) No person shall use within, or manufacture, supply, offer for sale, sell, or distribute for use within South Coast AQMD any Metalworking Fluid or Direct-Contact Lubricant containing more than 0.01 percent by weight of Group II Exempt Compounds after July 1, 2027.

~~(3) — Sell Through Provision~~

~~Any metalworking fluid or direct-contact lubricant that is manufactured prior to the effective date of the applicable limit, and that has a VOC content~~

~~above that limit (but not above the limit in effect on the date of manufacture), may be sold, supplied, offered for sale, or applied for up to six months after the specified effective date.~~

(e) Control Equipment

A person may use ~~metalworking fluids~~Metalworking Fluids and ~~direct-contact lubricants~~Direct-Contact Lubricants in excess of the limits, provided all ~~metalworking fluids~~Metalworking Fluids and ~~direct-contact lubricants~~Direct-Contact Lubricants are controlled by an emission control system that meets the following:

- (1) The control device reduces VOC emissions from an emission collection system by at least 95 percent by weight or the output of the air pollution control device is no more than 5 PPM VOC by volume calculated as carbon with no dilution; and
- (2) The emission collection system has been demonstrated to collect at least 90 percent by weight of the VOC emissions generated by the sources of VOC emission.

(f) Administrative Requirements

- ~~(1) Effective January 1, 2010, containers, for sale or distribution, of any vanishing oil or metal protecting fluid subject to this rule shall display the date of manufacture of the contents or a code indicating the date of manufacture. The manufacturers of such vanishing oils or metal protecting fluids shall file with the Executive Officer of the District an explanation of each code.~~
- (2) ~~Effective January 1, 2012, e~~Containers for sale or distribution, of any ~~metalworking fluid~~Metalworking Fluid or ~~direct-contact lubricant~~Direct-Contact Lubricant subject to this rule shall display the VOC content and either the date of manufacture of the contents or a code indicating the date of manufacture. The manufacturer or supplier of such fluids shall file with the Executive Officer of the District an explanation of each date code.
- ~~(3) For each calendar year (January 1 through December 31) beginning with 2011 and continuing with each subsequent calendar year until 2013, a metalworking fluid or direct-contact lubricant manufacturer or supplier shall submit to the District by April 1 of the following calendar year, an annual quantity and emissions report for products subject to the rule sold~~

~~within the District. The report format shall be approved by the Executive Officer, and shall include the annual sales volume and VOC content of metalworking fluids and direct contact lubricants sold or distributed within the District.~~

(g) Recordkeeping Requirements

(1) An owner or operator shall develop and maintain a VOC listing of all ~~metalworking~~ Metalworking Fluids and ~~direct contact lubricants~~ Direct-Contact Lubricants purchased for use at the facility. -The list shall be kept in a format specified by the ~~District Executive Officer~~ or in an equivalent format and shall contain the following data:

(A) Name and AQMD facility identification number (if applicable) of the stationary source;

(B) For each ~~metalworking fluid~~ Metalworking Fluid and ~~direct contact lubricants~~ Direct-Contact Lubricant:

(i) Manufacturer, a manufacturer product number, ID, or code that uniquely identifies the VOC-containing fluid, and a fluid category;

(ii) Grams of VOC per ~~liter~~ Liter of ~~material~~ Material;

The VOC Listing shall be updated within seven (7) calendar days from the date of receipt of a new ~~metalworking fluid~~ Metalworking Fluid or ~~direct contact lubricant~~ Direct-Contact Lubricant at the facility.

(2) An owner or operator shall record the following information on a monthly usage log in a format specified by the ~~District Executive Officer~~ or in an equivalent format:

(A) Name and AQMD identification number of the facility;

(B) Manufacturer product number, ID, or code from the VOC Listing;

(C) Amount of each VOC-containing fluid purchased on a monthly basis;

(D) Initials of the person entering the data; and

(E) Date the data was entered.

(3) An owner or operator of a stationary source shall maintain and make available to a ~~District~~ South Coast AQMD representative upon request all of the information necessary to verify the amount of ~~metalworking fluids~~ Metalworking Fluids and ~~direct contact lubricants~~ Direct-Contact

Lubricants used at the facility including, but not limited to purchase records identifying the supplier's name, date, and amount purchased.

- (4) In lieu of ~~meeting-complying with~~ paragraphs (g)(1), (g)(2) and (g)(3), records may be maintained pursuant to Rule 109 – Recordkeeping for Volatile Organic Compound Emissions, for all applications subject to this rule.
- (5) Any person using an emissions control system as a means of complying with this rule shall maintain daily records of all key system parameters, including hours of operation, temperatures, pressures and flow rates, that are necessary to ensure control efficiency requirements.
- ~~(6) Manufacturers utilizing the provision of subparagraph (d)(2)(B) shall maintain notification letters for five (5) years, which shall be made available to the Executive Officer or designee upon request.~~
- ~~(7) Manufactures or suppliers of metalworking fluids and direct contact lubricants shall maintain records to verify data used to determine VOC content in preparing their annual quantity and emissions report. The records shall be maintained for five (5) years and made available upon request by the Executive Officer. Such records shall include:
 - ~~(A) Laboratory reports; or~~
 - ~~(B) VOC content calculations.~~~~

(h) Test Methods and Procedures

The following test methods and procedures shall be used to determine compliance with this rule. -Other applicable test methods may be used if they are determined to be equivalent and approved in writing by the Executive Officer, the California Air Resources Board and the U.S. Environmental Protection Agency.

- (1) Determination of VOC Content
 - (A) ASTM E 1868 - 10 Standard Test Method for Loss-On-Drying by Thermogravimetry. Quality assurance and quality control procedures shall be conducted using South Coast AQMD Additional Requirements to ASTM Standard Test Method E 1868-10 for Metalworking Fluids and Direct-Contact Lubricants. -Water content shall be determined by ASTM D 4017 (Standard Test Method for Water in Paints and Paint Materials by Karl Fischer Method) if applicable to the specific sample. The exempt solvent content shall be determined by South Coast AQMD Method 303 (Determination

of Exempt Compounds) contained in the South Coast AQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or,

(B) Exempt Perfluorocarbon Compounds

The following classes of compounds:

cyclic, branched, or linear, completely fluorinated alkanes;
cyclic, branched, or linear, completely fluorinated ethers
with no unsaturations;

cyclic, branched, or linear, completely fluorinated tertiary
amines with no unsaturations; and

sulfur-containing perfluorocarbons with no unsaturations
and with sulfur bonds only to carbon and fluorine,

will be analyzed as ~~exempt compounds~~ Exempt Compounds for compliance with ~~subdivision paragraph~~ (d), only when manufacturers specify which individual compounds are used in the coating formulation. In addition, the manufacturers ~~must~~ shall identify the U.S. EPA, CARB, and the South Coast AQMD approved test methods used to quantify the amount of each ~~exempt compound~~ Exempt Compound.

(2) Determination of Flash Point

ASTM D93 - 07 Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester.

(3) Determination of Efficiency of Emission Control System

(A) The capture efficiency of an emission control system shall be determined by verifying the use of a Permanent Total Enclosure (PTE) and 100% capture efficiency as defined by U.S. EPA Method 204 "Criteria for and Verification of a Permanent or Temporary Total Enclosure." Alternatively, if a U.S. EPA Method 204 defined PTE is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in U.S. EPA technical guidance document "Guidelines for Determination Capture Efficiency, January 9, 1995." Individual capture efficiency test runs subject to the U.S. EPA technical guidelines shall be determined by:

(i) The Temporary Total Enclosure (TTE) approach of U.S. EPA Method 204 through 204F; or

(ii) The South Coast AQMD “Protocol for Determination of Volatile ~~organic~~ Organic Compounds (VOCs) Capture ~~efficiency~~ Efficiency.”

(B) The efficiency of the control device and the VOC content measured and calculated as carbon in the control device exhaust gases shall be determined by U.S. EPA's Test Method 18, or California Air Resources Board (CARB) Method 422 for the determination of emissions of Exempt Compounds and U.S. EPA's Test Methods 25, 25A, South Coast AQMD Method 25.1 for the determination of Total Gaseous Non-Methane Organic Emissions as Carbon, or South Coast AQMD Method 25.3 for the determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources, as applicable.

(C) The overall efficiency of an emission control system shall be determined using the following equation:

$$\begin{aligned} &\text{Overall Efficiency} \\ &= (\text{Capture Efficiency}) \times (\text{Control Equipment Efficiency})/100 \end{aligned}$$

(i) Exemptions

(1) Paragraph (d)(2) and subdivision (f) shall not apply to ~~metalworking fluids~~ Metalworking Fluids and ~~direct-contact lubricants~~ Direct-Contact Lubricants subject to the California Air Resources Board consumer products regulation found in Title 17 of the California Code of Regulations, beginning at Section 94507.

~~(2) — Until January 1, 2011, paragraph (d)(1) shall not apply to metalworking fluids and direct-contact lubricants subject to the California Air Resources Board consumer products regulation found in Title 17 of the California Code of Regulations, beginning at Section 94507.~~

~~(3) The provisions of this rule shall not apply to metalworking fluids~~ Metalworking Fluids and ~~direct-contact lubricants~~ Direct-Contact Lubricants sold in this District for shipment outside of this District or for shipment to other manufacturers for repackaging that are expressly and exclusively offered for sale, sold, or manufactured for use outside of the South Coast AQMD or that are for shipment to other manufacturers for reformulation or repackaging.

- (43) The provisions of subdivisions (d) and (f) of this rule shall not apply to ~~metalworking—fluids~~Metalworking Fluids and ~~direct-contact lubricants~~Direct-Contact Lubricants subject to VOC limits in other Regulation XI rules.
- (54) The provisions of subdivision (d) shall not apply to the following operations:
- (A) Lapping;
 - (B) Sinker EDM;
 - (C) Avionics and ~~assembled aircraft~~Assembled Aircraft;
 - (D) Space ~~vehicle~~Vehicle components; and
 - (E) Fluids utilizing the control device option in subdivision (e);
 - (F) ~~Until January 1, 2011, metal protecting fluids used in association with a military specification, military standard, Department of Defense document or Production Part Approval Process (PPAP). The specifications for the part shall be made available to the Executive Officer upon request.~~
- (65) The provisions of subdivision (g) shall not apply to any Super Compliant Material(s). This exemption shall only apply to facilities that demonstrate that total permitted and non-permitted facility VOC emissions do not exceed 4 tons in any calendar year, including emissions from the Super Compliant Material, as shown by annual purchase records.
- ~~(7) Paragraphs (d)(1) and (d)(2) shall not apply to the use of dimethyl carbonate used as a cooling solvent in computed numerically controlled (CNC) machines where permeable media are used to maintain a vacuum that holds the part in place during cutting provided that the equipment existed at the time of rule adoption, is enclosed and an exhaust fan discharges the exhaust air from the equipment outside of the building.~~
- (6) Paragraph (d)(2) shall not apply to any manufacturer or supplier of Metalworking Fluid or Direct-Contact Lubricant provided the product was sold to an independent distributor that was informed in writing by the manufacturer or supplier that the Metalworking Fluid or Direct-Contact Lubricant is not to be used in the South Coast AQMD. Manufacturers utilizing this provision shall maintain notification letters for five (5) years, which shall be made available to the Executive Officer or designee upon request.

- (7) Subparagraph (d)(2)(A) shall not apply to any manufacturer or supplier of Metalworking Fluid or Direct-Contact Lubricant collected and directed to an emission control system pursuant to subdivision (e).
- (8) The provisions of this rule shall not apply to repair, maintenance, or research operations.

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants

April 2026

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EXECUTIVE SUMMARY

Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants (Rule 1144) was adopted in March 2009 to reduce volatile organic compound (VOC) emissions from the use of metalworking fluids and direct-contact lubricants. Proposed Amended Rule 1144 (PAR 1144) addresses the toxicity of certain compounds that could be used in metalworking fluids and lubricants formulations.

The Office of Environmental Health Hazard Assessment (OEHHA) determined that *tert*-Butyl Acetate (t-BAc) and *para*-Chlorobenzotrifluoride (pCBtF) have toxic endpoints, including carcinogenicity. Historically, manufacturers have been using these two chemicals to formulate coatings and adhesives that comply with VOC content limits in South Coast AQMD rules due to their VOC exemption status. While these two compounds are not currently used by metalworking fluid and lubricant manufacturers, manufacturers could use these two compounds as VOC exempt options in future reformulations. Under South Coast AQMD regulations, t-BAc is exempt from the definition of a VOC for certain product categories in a few source-specific rules, not including Rule 1144. In contrast, pCBtF is exempt from the definition of VOC for all uses, including products regulated under Rule 1144. PAR 1144 partially implements the 2022 Air Quality Management Plan (AQMP) control measure CTS-01 to phase out pCBtF and t-Bac and assess opportunities for VOC emission reductions.

To ensure metalworking fluids and lubricants manufacturers do not develop new products with pCBtF and t-BAc, PAR 1144 establishes an end date of July 1, 2027, for manufacture of any metalworking fluid or direct-contact lubricant. Following this final manufacturing period, there is a one-year sell-through period and then an additional one-year use-through period. These additional phases ensure that manufacturers, distributors, and end users are provided with adequate time to transition to products without pCBtF and/or t-Bac, if needed. After the phase-out timeline provided, Rule 1144 products would be prohibited from containing pCBtF and/or t-BAc in excess of 0.01 percent by weight. PAR 1144 will be fully implemented after July 1, 2029. Since PAR 1144 does not alter VOC limits, and manufacturers subject to this rule have been found to not use pCBtF or t-BAc in their products, PAR 1144 is not expected to result in VOC emission reductions or increases.

PAR 1144 was developed through a robust public process. A Working Group meeting was held on August 12, 2025, that presented multiple South Coast AQMD rules, including Rule 1144, that proposed the prohibitions of pCBtF and t-BAc. Another Working Group meeting was held on November 20, 2025, where staff presented results from a manufacturer survey on pCBtF and t-BAc use in metalworking fluids and lubricants and proposed rule concepts. A Public Workshop for PAR 1144 was held on January 28, 2026.

CHAPTER 1: BACKGROUND

INTRODUCTION

BACKGROUND

REGULATORY HISTORY

AFFECTED FACILITIES AND EQUIPMENT

PUBLIC PROCESS

INTRODUCTION

Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants (PAR 1144) is a source-specific rule that was adopted to reduce VOC emissions from the use of metalworking fluids and direct-contact lubricants at industrial facilities. Rule 1144 establishes VOC content limits for eight different types of fluids that include vanishing oils, various metalworking fluids, and direct-contact lubricants. Rule 1144 is being amended to address health concerns related to pCBtF and t-BAC, which were identified by OEHHA as having toxic health endpoints.

BACKGROUND

Nationally, an estimated 1.2 million workers are employed in machine finishing, machine tooling, and other metalworking and metal-forming operations that use lubricants, metalworking fluids, or rust inhibitors. The U.S. Census (2022) estimates 11.3 percent of the fabricated metal industry are located in California, and the South Coast Air Basin accounts for approximately 55 percent of the industry, more than 3,300 establishments. Of these establishments, the U.S. Census (2022) estimates that 77 percent have fewer than twenty employees.

Typical industries using lubricants, metal working fluids, and rust inhibitors include:

- Aerospace
- Machine Shop (Job Shop)
- Steel Mills
- Auto Rebuild
- Screw Machine
- Steel Tubes (Pipes)
- Steel Springs
- Captive

Captive machine shops are machine shops located inside of another type of business (aerospace, automotive, etc.) that supports the business but are not the primary aspect of that business. Metalworking shops tend to be small businesses that generally do not use paints, coating, inks or adhesives; routinely use very low VOC content cleaning solvents; and have limited interaction with the South Coast AQMD. Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II, exempts machining equipment that use lubricants, metalworking fluids, and rust inhibitors with VOC contents less than 50 grams per liter (g/l) or a VOC composite partial pressure of 20 mm Hg. Nearly all lubricants, metalworking fluids and rust inhibitors, including those with a high-VOC content, have a VOC composite of 5 mm Hg or less. Thus, metalworking shops rarely have permits from the South Coast AQMD.

Lubricants, metalworking fluids and rust inhibitors are complex mixtures of oils, emulsifiers, anti-weld agents, corrosion inhibitors, extreme pressure additives, buffers (alkaline reserve), biocides, and other additives. Some products contain extreme pressure (EP) additives containing chlorinated, sulfurized, or phosphorus-type extreme pressure ingredients. There are numerous formulations, ranging from straight oils (such as petroleum oils) to water-based fluids, which

include soluble oils and semi-synthetic/synthetic fluids. In general, higher oil content provides better lubricity while higher water content allows more rapid cooling.

Development of Health Risk Understanding for pCBtF and t-BAc

In 1994, the United States Environmental Protection Agency (U.S. EPA) granted pCBtF an exemption from the definition of a VOC (59 FR 50693)¹. Similarly, in 2004, U.S. EPA added t-BAc to its list of VOC-exempt solvents (69 FR 69298)². The initial exemptions were granted based on the chemicals' negligible photochemical reactivity. These exemptions were subsequently incorporated into South Coast AQMD rules. In 2005, a limited VOC exemption for t-BAc was added to Rule 1151 – Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations (Rule 1151), exempting its use when calculating the VOC content in color and clear coat applications. In 2014, pCBtF was added to the list of VOC-exempt compounds under Rule 102 – Definition of Terms (Rule 102).

However, emerging toxicological data prompted a reevaluation of the pCBtF and t-BAc exemptions. In 2015, OEHHA released a draft HRA for t-BAc, indicating it may be more toxic than previously understood. In response, the resolution adopting the 2016 amendments to Rule 1113 – Architectural Coatings (Rule 1113) directed South Coast AQMD staff to reassess the exemption for t-BAc. Staff developed a white paper in 2017 and presented findings to Stationary Source Committee (SSC), which recommended that toxicity concerns should take precedence over VOC emission reductions if t-BAc was confirmed to be a carcinogen. The most recent Health Risk Assessments (HRA), which estimate lifetime health risks associated with exposure, were adopted for t-BAc in August 2018³ and for pCBtF in August 2020⁴. As a result of these findings and determinations by OEHHA, removing the VOC exemption status of pCBtF and t-BAc is necessary to reduce toxic risk to the general public.

Phase Out of pCBtF and t-BAc

Currently, pCBtF is universally VOC-exempt for all rules, while t-BAc retains its limited exemption in Rule 1113 for specific uses needed for product formulation, such as industrial maintenance and non-sacrificial anti-graffiti coatings. To implement the phase-out of pCBtF and t-BAc, South Coast AQMD staff began amending VOC rules in 2022, beginning with Rule 1168 – Adhesive and Sealant Applications (Rule 1168), for which modeling confirmed pCBtF and t-BAc would pose health risks to sensitive receptors near adhesive application projects, specifically for roofing projects. Further, staff concluded that both pCBtF and t-BAc exhibit toxicities comparable to chemicals that are already prohibited in some VOC rules; therefore, staff proposed prohibiting their use. Since Rule 1168, staff also amended Rule 1151 – Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operation; Rule 1171 – Solvent Cleaning Operations; and Rule 1107 – Coating of Metal Parts and Products to prohibit the use of pCBtF and t-BAc, and are currently working to address their use in all other South Coast AQMD VOC rules.

¹ [Federal Register :: Revision to Definition of Volatile Organic Compounds-Exclusion of para-Chlorobenzotrifluoride](#)

² [Federal Register :: Revision to Definition of Volatile Organic Compounds-Exclusion of t-Butyl Acetate](#)

³ [Notice of Adoption of Cancer Inhalation Unit Risk and Slope Factors and Cancer Oral Slope Factor for Tert-Butyl Acetate - OEHHA](#)

⁴ [Notice of Adoption of Cancer Inhalation Unit Risk Factor for p-Chloro- \$\alpha,\alpha,\alpha\$ -Trifluorotoluene - OEHHA](#)

2022 Air Quality Management Plan (AQMP)

The 2022 AQMP adopted on December 2, 2022, sets forth a path for improving air quality and meeting federal air pollution standards by striving for zero-NOx emission technologies across all sectors and lower VOC emissions where feasible. The 2022 AQMP included Control Measure CTS-01 Further Emission Reductions from Coatings, Solvents, Adhesives, and Lubricants (CTS-01), which seeks to address the toxicity concerns of pCBtF and t-BAc and assess opportunities for VOC emission reductions.⁵ PAR 1144 partially implements CTS-01 from the 2022 AQMP.

REGULATORY HISTORY

Rule 1144 was adopted on March 6, 2009, and was amended on July 9, 2010. The amendment was primarily focused on adding VOC limits to metalworking fluids and lubricants. Adding those VOC limits was delayed at the time the rule was initially proposed because existing test methods were found to be unreliable for semi-volatile materials typically found in metalworking fluids and lubricants. The amendment also fully implemented control measure CTS-01 Emission Reduction from Lubricants in the 2007 AQMP.

AFFECTED FACILITIES AND EQUIPMENT

Rule 1144 is applicable to all persons who manufacture, supply, sell, offer for sale, or use metalworking fluids and direct-contact lubricants within South Coast AQMD's jurisdiction. Certain parts of the rule, such as paragraph (d)(2) and subdivision (f) do not apply to metalworking fluids and direct-contact lubricants subject to California Air Resources Board's (CARB's) consumer products regulation found in Title 17 of the California Code of Regulations.

The provisions of subdivision (d) do not apply to the following operations:

- (A) Lapping
- (B) Sinker EDM
- (C) Avionics and assembled aircraft
- (D) Space vehicle components
- (E) Fluids utilizing the control device option in subdivision (e)

Due to the nature of this rule and applicability, metalworking shops tend to be small businesses that generally do not use paints, coatings, inks or adhesives; routinely use low VOC cleaning solvents; and rarely have permits with South Coast AQMD. Over an estimated 3,300 facilities may be subject to Rule 1144.

PUBLIC PROCESS

The current rule amendment process began in August 2025. Staff conducted two Working Group Meetings with the first held on August 12, 2025, and the second one on November 20, 2025. The Working Group is composed of representatives from businesses, environmental groups, public agencies, and consultants. The purpose of Working Group meetings is to discuss proposed concepts and work through the details of South Coast AQMD's proposal. Additionally, a Public

⁵ [2022 Air Quality Management Plan - Chapter 4: Control Strategy and Implementation](#)

Workshop was held on January 28, 2026. The purpose of the Public Workshop is to present the proposed amended rule language to the general public and stakeholders and to solicit comments. Staff also conducted individual meetings with industry stakeholders and distributed a survey/questionnaire to metalworking fluid and lubricant manufacturers requesting information on usage of pCBtF and/or t-BAc as part of this rulemaking process. Table 1-1 summarizes the key topics discussed at each of the public meetings for PAR 1144.

Table 1-1 – Public Meeting Dates and Topics

Meeting Title	Date	Topics
Working Group Meeting #1	August 12, 2025	<ul style="list-style-type: none"> • Introduction to Proposed Prohibitions for Multiple Rules, including Rule 1144 • Manufacturer Survey
Working Group Meeting #2	November 20, 2025	<ul style="list-style-type: none"> • Rule Background and Objectives • VOC and Exempt Compounds • Manufacturer Survey Results • Initial Proposed Prohibition Timeline
Public Workshop	January 28, 2026	<ul style="list-style-type: none"> • Preliminary Draft Rule Language • Preliminary Impact Assessments

CHAPTER 2: PCBTF/T-BAC TOXICITY

INTRODUCTION

BACKGROUND OF PCBTF AND T-BAC

**COMPARING PCBTF AND T-BAC TOXICITY TO OTHER
COMPOUNDS**

STAFF RECOMMENDATIONS ON PCBTF AND T-BAC

**METALWORKING FLUIDS AND DIRECT-CONTACT LUBRICANTS
MANUFACTURER SURVEY/QUESTIONNAIRE**

INTRODUCTION

pCBtF and t-BAc are two solvents that are exempt from the federal definition of a VOC due to their low photochemical reactivity, but recently became a focus of public health concern. Health risk assessments for pCBtF and t-BAc identified elevated cancer potency factors, inhalation unit risks, and acute reference exposure levels (acute REL) compared to other regulated compounds. In response, South Coast AQMD evaluated the use of pCBtF and t-BAc in metalworking fluids and direct-contact lubricants regulated under Rule 1144 and developed PAR 1144 rule proposals to address toxicity without increasing VOC emissions.

BACKGROUND ON PCBTF AND T-BAC

In 1994, U.S. EPA exempted pCBtF from the federal definition of a VOC due to its negligible photochemical reactivity. In 2014, South Coast AQMD incorporated this exemption by adding pCBtF to Rule 102, which designates VOC-exempt compounds. As a result, pCBtF is currently not considered a VOC unless otherwise specified under any South Coast AQMD rule.

In 2004, U.S. EPA added t-BAc to its list of VOC-exempt compounds. However, South Coast AQMD did not provide a full exemption for t-BAc under Rule 102 due to concerns regarding potential toxicity. Instead, limited exemptions were granted for t-BAc through source-specific rules, such as Rule 1113.

The 2013 amendments to Rule 1113 included a resolution that directed staff to review the exemption for t-BAc due to renewed toxicity concerns. In 2017, South Coast AQMD staff presented preliminary findings to the Stationary Source Committee (SSC) on t-BAc, including concerns regarding pCBtF, which OEHHA had not yet assessed at that time.

Based on staff recommendations, the SSC directed staff to remove the existing t-BAc exemption in Rules 1113 and 1151 once OEHHA finalized their assessment. The SSC also requested that OEHHA review the potential toxicity of pCBtF and that South Coast AQMD staff remove the pCBtF exemption, as resources allow, if pCBtF is deemed a potential carcinogen. OEHHA finalized the health risk assessment for t-BAc in 2018, concluding that it had a higher cancer potential than previously estimated. In 2020, the pCBtF health risk assessment was finalized by OEHHA, which indicated pCBtF is a potential carcinogen. Staff's actions to date to prohibit pCBtF and t-BAc include amending: Rule 1168 – Adhesive and Sealant Applications (Rule 1168) on November 4, 2022; Rule 1151 on November 1, 2024, Rule 1171 – Solvent Cleaning Operations (Rule 1171) on June 6, 2025, and Rule 1107 – Coating of Metal Parts and Products (Rule 1107) on December 5, 2025.

COMPARING PCBTF AND T-BAC TOXICITY TO OTHER COMPOUNDS

Staff considered several approaches to address the toxicity concerns for pCBtF and t-BAc, ranging from removing the VOC-exempt status to a complete prohibition of use. To inform that decision, staff considered how other compounds with potential toxic endpoints have historically been addressed. Under Rule 102, VOC-exempt compounds are categorized as either Group I or Group

II. Group II compounds, while still considered exempt VOCs, may be prohibited from use in specific source rules due to health or safety concerns.

Two key toxicological metrics were considered in this analysis: the cancer potency factor and the acute REL. Cancer potency factor is a measure used to estimate the risk of cancer associated with exposure to a carcinogenic substance and represents the increased cancer risk per unit of exposure over a lifetime measured in milligrams of a substance per kilogram of body weight per day. REL is the maximum concentration level of a substance in the air that is not expected to have adverse health effects in humans over a specified exposure duration measured in micrograms per cubic meter of air. RELs can be established for acute (short-term), 8-hour, or chronic (long-term). For context and comparison, the cancer potency factors and acute RELs for five compounds are summarized in Table 2-1 – Cancer Potency Factor Comparison and Table 2-2 – Acute REL Comparison, respectively.

Table 2-1 – Cancer Potency Factor Comparison

Compound	Cancer Potency Factor (mg/kg-day)
Perchloroethylene (perc)	0.021
Dimethyl Carbonate (DMC)	0.0035
t-BAc	0.0047
pCBtF	0.03
Ethylene Oxide (EtO)	0.31

For the five compounds shown in Table 2-1, pCBtF has the second highest cancer potency factor, with EtO being the only compound with a greater associated cancer risk due to exposure. The cancer potency factor of pCBtF is almost 50 percent higher than perchloroethylene's, a currently prohibited Group II Exempt Compound.

Table 2-2 shows the available acute RELs for the same five compounds. t-BAc has the lowest REL, meaning the highest risk among the compounds. The cancer potency factor for pCBtF is much higher than t-BAc, perc, and DMC, but it has no established acute REL.

Table 2-2 – Acute REL Comparison

Compound	Acute REL ($\mu\text{g}/\text{m}^3$)
perc	20,000
DMC	14,000
t-BAc	10,000
pCBtF	N/A
EtO	N/A

STAFF RECOMMENDATIONS ON PCBtF AND T-BAC

The preceding comparison of pCBtF and t-Bac to other toxic compounds that are prohibited from use in VOC rules, including Rule 1144, supports a prohibition of pCBtF and t-Bac. OEHHA's assessment of pCBtF and t-Bac shows these compounds to be as toxic as many chemicals currently prohibited; therefore, staff recommends prohibiting the use of pCBtF and t-Bac.

METALWORKING FLUIDS AND DIRECT-CONTACT LUBRICANTS MANUFACTURER SURVEY/QUESTIONNAIRE

In August 2025, staff conducted a manufacturer survey that was followed up by a questionnaire to understand the extent to which pCBtF and t-Bac are used to comply with the VOC limits in Rule 1144. The survey had the following questions:

Table 2-3 – Metalworking Fluid and Direct-Contact Lubricant Manufacturer Survey

Requested Information	
Product Information including the following:	
1.	Product Code & Name
2.	Applicable Category
3.	t-BAc WT% & pCBtF WT%
4.	VOC of Material
5.	Waterborne or Solvent-Based
6.	Total Annual Volume (gal) sold for use in South Coast AQMD or California
7.	PW-MIR (g O ₃ /g Product) and Safety Data Sheet

PW-MIR = Product-Weighted Maximum Incremental Reactivity

The questionnaire had the following questions:

1. *Does your facility or represented company manufacture any products that contain Parachlorobenzotrifluoride (pCBtF) and/or Tert-butyl acetate (t-BAc)?*
2. *If yes to #1, please state the name of the product(s) and provide documentation that includes the amount of pCBtF and/or t-BAc in each product.*
3. *If yes to #1, is there a readily available replacement under consideration? If yes, please provide the name of the replacement chemical(s).*

In total, five manufacturers and two organizations that represent multiple manufacturers responded to the survey. All survey/questionnaire responses reported that they were not manufacturing products that included pCBtF or t-Bac.

Survey responses indicate that pCBtF and t-Bac are not being used in metalworking fluids and direct-contact lubricants.

CHAPTER 3: PROPOSED AMENDED RULE 1144

INTRODUCTION

PROPOSED AMENDED RULE STRUCTURE

PROPOSED AMENDED RULE 1144

INTRODUCTION

The main objective of PAR 1144 is to phase out the use of pCBtF and t-BAc as solvents in metalworking fluids and direct-contact lubricants due to toxicity and public health concerns.

The following information explains new provisions and any modifications to provisions that have been incorporated. PAR 1144 also includes deletions to obsolete rule language (e.g. past effective dates) and editorial changes for clarity.

PROPOSED AMENDED RULE STRUCTURE

PAR 1144 retains the following subdivisions:

- a) *Purpose*
- b) *Applicability*
- c) *Definitions*
- d) *Requirements*
- e) *Control Equipment*
- f) *Administrative Requirements*
- g) *Recordkeeping Requirements*
- h) *Test Methods and Procedures*
- i) *Exemptions*

PROPOSED AMENDED RULE 1144

Subdivision (b) – Applicability

For clarity, the statement that the provisions of this rule shall not apply to repair, maintenance, or research operations is moved to the Exemptions subdivision under new paragraph (i)(8).

Subdivision (c) – Definitions

While no new or modified definitions are proposed, PAR 1144 adds titles of other rules mentioned such as Rule 102 – Definition of Terms.

Subdivision (d) – Requirements

PAR 1144 updates Table A – Fluid Categories and VOC Limits to remove past effective dates and reflect the most current effective VOC limits for each category.

To harmonize with other South Coast AQMD VOC rules, PAR 1144 also includes a new provision in subparagraph (d)(1)(B) to clarify that for any metalworking fluid and/or direct-contact lubricant intended for use in multiple categories listed in Table A, the lowest applicable VOC limit shall apply. Addition of this provision is not expected to alter current compliance or enforcement of the VOC content requirements of this rule, provided the metalworking fluid and/or direct-contact lubricant is properly labeled and represented for its intended use.

To provide further clarity, the two provisions in paragraph (d)(2) specifying the conditions where the prohibition of sale in subparagraph (d)(2)(A) does not apply (formerly subparagraphs (d)(2)(B) and (d)(2)(C)) are moved to the Exemptions subdivision under paragraphs (i)(6) and (i)(7).

PAR 1144 also broadens paragraph (d)(2) to include all prohibitions, not simply those related to sale, and adds new subparagraphs (d)(2)(B) through (d)(2)(E) to facilitate the prohibition of pCBtF, t-BAc, and other toxic compounds in metalworking fluids and direct-contact lubricants.

In these new subparagraphs, staff proposes a phase-out approach. Though the manufacturer questionnaire responses indicate that pCBtF and t-BAc are not being used in metalworking fluids and direct-contact lubricants, a phase-out timeline allows sufficient time to comply for companies that did not respond to the survey and/or may be developing products containing pCBtF or t-BAc, and is consistent with other South Coast AQMD VOC rules where prohibitions on these two compounds are included. Metalworking fluids and direct-contact lubricants that exceed 0.01 percent by weight of pCBtF and/or t-BAc can continue to be manufactured until July 1, 2027. This percent level by weight is to account for potential trace levels of pCBtF and t-BAc. Any products manufactured on or prior to July 1, 2027 with pCBtF and/or t-BAc, can continue to be sold until July 1, 2028. After July 1, 2028, the sale or redistribution for the purpose of sale for use within South Coast AQMD is strictly prohibited. The final step to phase out pCBtF and t-BAc is a one-year use-though timeline, which allows any owner or operator to use any existing inventory of metalworking fluids or lubricants containing greater than 0.01 percent by weight of pCBtF and/or t-BAc, until July 1, 2029. After July 1, 2029, products containing greater than 0.01 percent by weight of pCBtF and/or t-BAc cannot be used at facilities subject to the provisions of this rule. This prohibition does not restrict transport or storage of these products when they are not used or intended for use within the South Coast AQMD.

To ensure that no other exempt-status chemicals with known toxicities are manufactured or used in metalworking fluids or direct-contact lubricants, PAR 1144 includes a prohibition on the manufacture, distribution, or sale for use within South Coast AQMD, or use of products containing greater than 0.01 percent by weight of Group II Exempt Compounds after July 1, 2027.

PAR 1144 deletes paragraph (d)(3) as the sell through provisions for metalworking fluids and direct-contact lubricants not meeting the applicable VOC content limits have expired.

Subdivision (f) – Administrative Requirements

PAR 1144 streamlines this subdivision by removing redundant administrative requirements and rule language referencing past effective dates, including paragraph (f)(3) which required manufacturer or supplier submittal of annual quantity and emission reports until year 2013. What remains is requiring the display of VOC content and date of manufacture (or equivalent code) on the product container (formerly paragraph (f)(2)).

Subdivision (g) – Recordkeeping Requirements

Paragraph (g)(6), which requires manufacturers to maintain notification letters provided to independent distributors informing them that specific metalworking fluids and direct-contact

lubricants are not to be used in the South Coast AQMD, was moved to new paragraph (i)(6) for additional clarity as this recordkeeping requirement only applies to this provision. PAR 1144 also deletes paragraph (g)(7) for consistency with the deletion of paragraph (f)(3).

Subdivision (i) - Exemptions

PAR 1144 updates this subdivision by removing obsolete rule language for three provisions. Former paragraph (i)(2) and subparagraph (i)(4)(F) (formerly subparagraph (i)(5)(F)) had temporary exemptions, lasting through January 1, 2011, from some or all of the rule requirements for metalworking fluids and lubricants subject to the CARB consumer products regulation and metal protecting fluids used in association with military or Department of Defense specifications; therefore those exemptions have expired and are now deleted.

For harmonization with other South Coast AQMD VOC rules, PAR 1144 updates paragraph (i)(2) (formerly paragraph (i)(3)) to clarify that the provisions of this rule do not apply to metalworking fluids and direct-contact lubricants that are offered for sale, sold, or manufactured within South Coast AQMD but are only for use outside of South Coast AQMD's jurisdiction, or that are to be shipped to other manufacturers for reformulation or repackaging.

In addition to moving former subparagraph (d)(2)(B) to new paragraph (i)(6), this provision exempting manufacturers and suppliers from the sale prohibition on a product with excess VOC content provided they give written notification that the product is not to be used in South Coast AQMD, is broadened to include all prohibitions specified in paragraph (d)(2) for pCBtF, t-BAC, and Group II exempt compound containing products. This would extend the additional compliance assurance for manufacturers and suppliers to their products that may contain these compounds in excess of 0.01 percent in the event a product intended for use outside of the South Coast is sold to an independent distributor who then distributes or sells it for use within South Coast AQMD.

Paragraph (i)(7) was also deleted due to dimethyl carbonate no longer being used as a cooling solvent in computed numerically controlled (CNC) machines.

Lastly, as discussed previously in this chapter, the Exemptions subdivision now includes the three provisions that were specified in earlier subdivisions of the rule that, for clarity purposes, best belong in this subdivision.

CHAPTER 4: IMPACT ASSESSMENT

INTRODUCTION

EMISSION REDUCTIONS

COSTS

SOCIOECONOMIC IMPACT ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

DRAFT FINDINGS UNDER THE HEALTH AND SAFETY CODE

COMPARATIVE ANALYSIS

INTRODUCTION

Impact assessments were conducted as part of PAR 1144 rule development to assess the environmental and socioeconomic implications. These impact assessments include a socioeconomic impact assessment and a California Environmental Quality Act (CEQA) analysis. Draft findings and comparative analyses were prepared pursuant to Health and Safety Code Sections 40727 and 40727.2, respectively.

EMISSION REDUCTIONS

PAR 1144 establishes a compliance schedule to phase out metalworking fluids and direct-contact lubricants containing greater than 0.01 percent by weight pCBtF and t-BAc, without changing the established VOC emission limits. Furthermore, due to responses received from the manufacturer survey/questionnaire that these two compounds are not currently being used in metalworking fluid and lubricant products, no product reformulation is expected. In addition, VOC emissions in metalworking fluids are already extremely low based on previous survey data and further VOC emission reductions were not pursued. Therefore, no increase or decrease in VOC emissions are expected as a result of PAR 1144.

COSTS

Staff met with industry stakeholders and learned that, at least for those companies that responded to the manufacturer survey/questionnaire, they can meet the existing VOC emission limits since these companies are not using pCBtF or t-BAc in their products. Since no product reformulations are expected, no cost impacts are anticipated.

SOCIOECONOMIC IMPACT ASSESSMENT

A socioeconomic impact assessment is not required by Health and Safety Code Sections 40440.8 and 40728.5 because PAR 1144 will not significantly affect air quality or emission limitations, and thus, will not result in significant socioeconomic impacts.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1144) is exempt from CEQA pursuant to CEQA Guidelines Sections 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062, and if the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation.

DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE 40727

Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference, as defined in that section, based on

relevant information presented at the Public Hearing, this written analysis, and the rulemaking record. The draft findings are as follows:

Necessity – PAR 1144 is needed to phase out pCBtF and t-BAc to reduce potential toxicity in metalworking fluids and direct-contact lubricants as specified by the 2022 AQMP Control Measure CTS-01.

Authority – The South Coast AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Health and Safety Code Sections 39002, 39650 *et. seq.*, 40000, 40001, 40440, 40702, 40725 through 40728, and 41508.

Clarity – The South Coast AQMD Governing Board has determined that PAR 1144 is written and displayed so that the meaning can be easily understood by persons directly affected by them.

Consistency – The South Coast AQMD Governing Board has determined that PAR 1144 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, federal or state regulations.

Non-Duplication – The South Coast AQMD Governing Board has determined that PAR 1144 does not impose the same requirement as any existing state or federal regulation, and the proposed amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference – In adopting this regulation, the South Coast AQMD Governing Board references the following statutes, which the South Coast AQMD hereby implements, interprets, enforces, or makes specific: Health and Safety Code Section 40001, and 40702.

COMPARATIVE ANALYSIS

Under Health and Safety Code Section 40727.2, the South Coast AQMD is required to perform a comparative analysis when adopting, amending, or repealing a rule or regulation. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules, and other air pollution control requirements and guidelines which are applicable to VOC regulations for metalworking fluids and direct-contact lubricants in industrial facilities. Neither state nor federal regulations regulate VOC emissions from metalworking fluids and direct-contact lubricants in industrial facilities, so there is no comparison to analyze.

APPENDIX A – RESPONSES TO PUBLIC WORKSHOP COMMENTS

Comments from Public Workshop

Comment #1: John Burke, a representative for Independent Lubricant Manufacturers Association (ILMA), requested a copy of the preliminary draft rule language without strikeout and underline. He also inquired how many people attended the Public Workshop.

Staff Response: A clean version (without strikeout/underline) of the preliminary draft rule language can be found on the Proposed Amended Rule 1144 webpage located at the following link: <https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-1144>.

Regarding the Public Workshop attendance, there were 31 attendees.

Comment #2: Moses Huerta, City of Paramount resident, asked when the Office of Environmental Health Hazard Assessment (OEHHA) studies were completed for pCBtF and t-BAc and if they are available to view.

Staff Response: In August 2015, OEHHA released a draft document summarizing the carcinogenicity and development of an inhalation cancer unit risk factor for t-BAc, and the document was finalized and published in August 2018. This document and other supporting documentation for t-BAc can be found here: <https://oehha.ca.gov/air/crn/notice-adoption-cancer-inhalation-unit-risk-and-slope-factors-and-cancer-oral-slope-factor-tert>.

In October 2019, OEHHA released a draft document summarizing the carcinogenicity and development of an inhalation cancer unit risk factor for pCBtF, and the document was finalized and published in August 2020.

This document and other supporting documentation for pCBtF can be found here: <https://oehha.ca.gov/air/crn/notice-adoption-cancer-inhalation-unit-risk-factor-p-chloro-aaa-trifluorotoluene>.

Comment #3: Patrick Gieske, from Seymour of Sycamore, asked if there is a possibility of looking at maximum incremental reactivity (MIR) as a measure for VOC control in metalworking fluids and direct-contact lubricants. He also asked if this rule has a low vapor pressure (LVP) VOC exemption.

Staff Response: MIR is a regulatory metric that quantifies the maximum amount of ozone formed per unit mass of a specific VOC under optimal atmospheric conditions. A higher MIR value indicates a greater potential for that VOC to contribute to ground-level ozone formation. Staff does not find it necessary to incorporate MIR in this rule since, based on received surveys, no pCBtF or t-BAc is being used in metalworking fluids or direct-contact lubricants, and thus no reformulation is needed. Generally, MIR is used for products that require reformulation and do not have substitute solvents readily available to be used.

The LVP VOC exemption is a regulatory provision that excludes certain high-boiling or low-volatility organic compounds from being counted towards the total VOC limit in VOC containing products for compliance purposes. While CARB has an LVP VOC exemption for consumer products, South Coast AQMD does not for Rule 1144 metalworking fluids and direct-contact lubricants. South Coast AQMD uses ASTM E 1868 – 10 Standard Test Method for Loss-On-Drying by Thermogravimetry that was developed by stakeholders when this rule was created to determine VOC content. There are some exempt solvents that are listed in South Coast AQMD Rule 102, but staff does not anticipate much use of exempt solvents since many of the products subject to this rule are water-based and therefore already contain low VOC levels.

ATTACHMENT H



**South Coast
Air Quality Management District**

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

PROJECT TITLE: PROPOSED AMENDED RULE 1144 – METALWORKING FLUIDS AND DIRECT-CONTACT LUBRICANTS

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties. The Notice of Exemption will also be electronically filed with the State Clearinghouse of the Governor’s Office of Land Use and Climate Innovation for posting on their CEQAnet Web Portal which may be accessed via the following weblink: <https://ceqanet.opr.ca.gov/search/recent>. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD’s webpage which can be accessed via the following weblink: <http://www.aqmd.gov/nav/about/public-notices/ceqa-notices/notices-of-exemption/noe---year-2026>.

**NOTICE OF EXEMPTION FROM THE
CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

To: County Clerks for the Counties of Los Angeles, Orange, Riverside, and San Bernardino; and Governor's Office of Land Use and Climate Innovation – State Clearinghouse	From: South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765
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Project Title: Proposed Amended Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants

Project Location: The proposed project is located within the South Coast Air Quality Management District's (South Coast AQMD) jurisdiction, which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties), and the Riverside County portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin.

Description of Nature, Purpose, and Beneficiaries of Project: Rule 1144 limits volatile organic compound (VOC) emissions from the use of metalworking fluids and direct-contact lubricants at industrial facilities. The primary objective of Proposed Amended Rule (PAR) 1144 is to partially implement control measure CTS-01: Further Emission Reductions From Coatings, Solvents, Adhesives, and Lubricants of the 2022 Air Quality Management Plan to phase out the use of para-Chlorobenzotrifluoride (pCBtF) and *tert*-Butyl Acetate (t-BAc) in metalworking fluids and direct-contact lubricants due to toxicity and public health concerns. PAR 1144 includes: 1) a prohibition pertaining to the manufacture, sale, and use of metalworking fluids and lubricants with more than trace levels of pCBtF and t-BAc at future effective dates; 2) sell-through and use-through provisions to ensure that manufacturers, distributors, and end users are provided with adequate time to transition to products without pCBtF and/or t-BAc, if needed; 3) prohibitions of other toxic compounds in metalworking fluids and lubricants; and 4) revisions for clarity and harmonization with other South Coast AQMD VOC rules, streamlined administrative requirements, minor editorial changes and removal of outdated rule provisions. Implementation of the proposed project is not expected to result in a change in VOC emissions relative to baseline conditions because compliant formulations of metalworking fluids and direct-contact lubricants that do not contain pCBtF or t-BAc are currently available and capable of meeting the established VOC emission limits. The primary benefit of phasing out pCBtF and t-BAc is the reduced risk of exposure to these toxic chemicals by workers, nearby receptors and the public.

Public Agency Approving Project: South Coast Air Quality Management District	Agency Carrying Out Project: South Coast Air Quality Management District
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Exempt Status:
CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption

Reasons why project is exempt: South Coast AQMD, as Lead Agency, has reviewed the proposed project (PAR 1144) pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. It can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment because: 1) PAR 1144 is not expected to result in a change in VOC emissions relative to baseline conditions; and 2) compliant formulations that do not contain pCBtF and t-BAc are commercially available and the sell-through and use-through provisions provide sufficient time to find suitable replacements, which will prevent stranded assets and the generation of waste. Therefore, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption.

NOTICE OF EXEMPTION FROM CEQA (concluded)

Date When Project Will Be Considered for Approval (subject to change):

South Coast AQMD Governing Board Public Hearing: April 3, 2026

CEQA Contact Person:

Sina Taghvaei, Ph.D.

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(909) 396-2192

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PAR 1144 Contact Person:

Jose Enriquez

Phone Number:

(909) 396-2640

Email:

jenriquez1@aqmd.gov

Date Received for Filing: _____

Signature: _____ *(Signed and Dated Upon Board Approval)*

Kevin Ni

Program Supervisor, CEQA

Planning, Rule Development, and

Implementation

Proposed Amended Rule 1144 Metalworking Fluids and Direct-Contact Lubricants



Governing Board Meeting

April 3, 2026

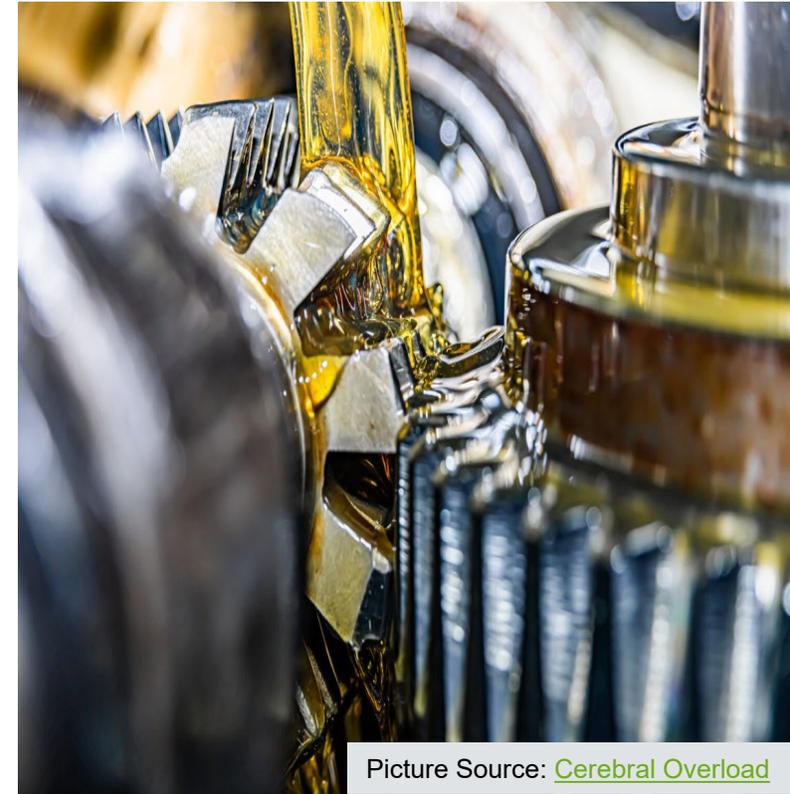
Background

Rule 1144 adopted in March 2009 and amended in July 2010

Limits emissions of volatile organic compounds (VOC) from metalworking fluids and direct-contact lubricants

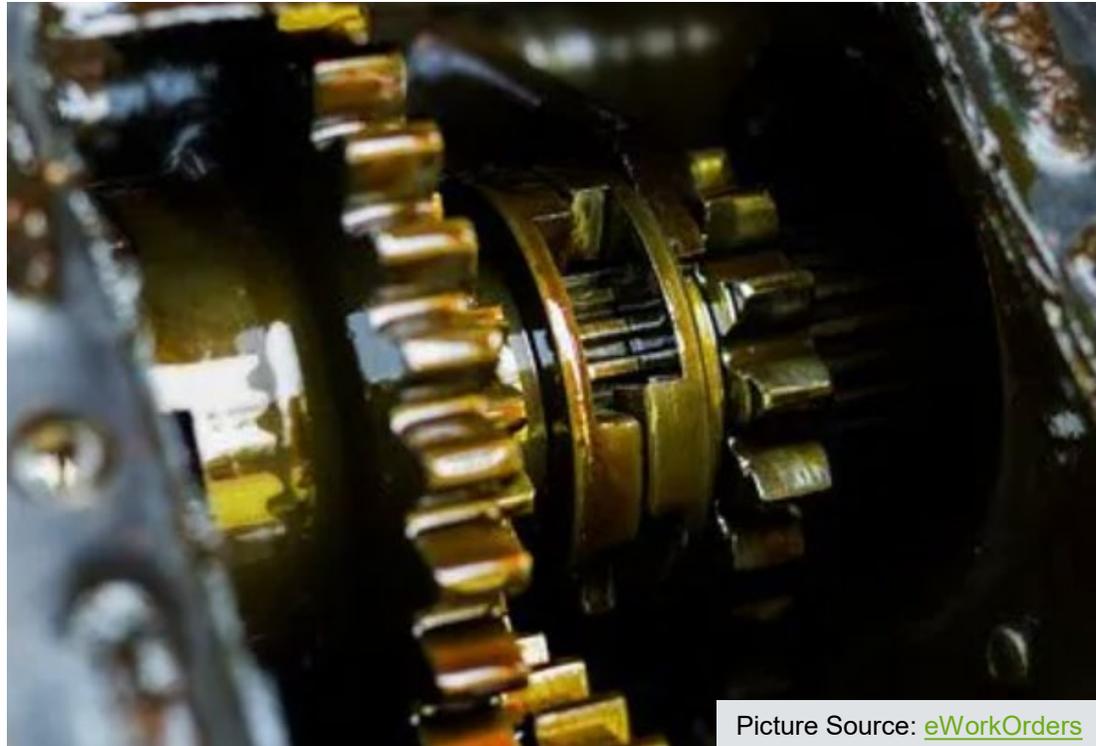
Applies to ~3,300 facilities, most of which do not have South Coast AQMD permits

Proposed Amended Rule 1144 addresses toxicity concerns with *para*-Chlorobenzotrifluoride (pCBtF) and *tert*-Butyl Acetate (t-BAc)



Picture Source: [Cerebral Overload](#)

Use of pCBtF and t-BAc in Metalworking Fluids and Lubricants



Picture Source: [eWorkOrders](https://www.eWorkOrders.com)

- Current rules allow pCBtF and t-BAc to be used as exempt solvents to meet lower VOC limits
- OEHHA determined both solvents are carcinogenic, thus South Coast AQMD has recommended their phase-out
- Survey of metalworking fluid and lubricant manufacturers showed pCBtF and t-BAc are not being used in their products
 - Responses received represent majority of industry manufacturers but not all responded
 - Indicates early prohibition of pCBtF and tBAc is feasible

Proposed Phase-Out Timeline for pCBtF and t-BAc



- Timeline allows sufficient time to comply for companies that:
 - Did not respond to survey
 - May be developing products containing pCBtF or t-BAc

Socioeconomic Impact Assessment and CEQA

Socioeconomic Impact Assessment

- PAR 1144 will not affect air quality or emission limitations and will not result in any significant socioeconomic impacts
- No socioeconomic impact assessment is required by Health and Safety Code Sections 40440.8 and 40728.5

California Environmental Quality Act (CEQA)

- Prohibition of pCBtF and t-BAc is health protective, and compliant formulations are currently available
- No significant adverse environmental impacts expected
- A Notice of Exemption has been prepared

Staff is not aware of any key issues

Staff Recommendations

Determine that Proposed Amended Rule 1144 is exempt from CEQA; and

Amend Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants