

SECOND WORKING GROUP MEETING PAR 219 AND PAR 222



November 10, 2016
SCAQMD Headquarters
Diamond Bar, CA

Agenda

- ▣ Update since August working group meeting
- ▣ Proposed rule language for changes previously discussed
- ▣ Proposals submitted by stakeholders
 - Draft disposition and rule language
- ▣ Next steps
- ▣ Updated Rule Development schedule

Simple Language Clarifications

PAR 219 Reference	Proposed Language
(e)(14)	Tumblers used for the cleaning or deburring of solid materials, <u>and associated air pollution control equipment.</u>
(g)(2)	<u>Wood Products:</u> Equipment used exclusively for shredding of wood, or the extruding, handling, or storage of wood chips, sawdust, or wood shavings and control equipment used to exclusively vent such equipment. <u>Sources of wood chips, sawdust and wood shavings allowed by this exemption do not include wood that is painted or treated for exterior exposure, or wood that is comingled with other construction and demolition materials.</u> This exemption does not include internal combustion engines over 50 bhp, which are used to supply power to such equipment. <u>In addition, this exemption does not include the shredding, extruding, handling or storage of any organic waste material generated from gardening, agricultural, or landscaping activities including, but not limited to, leaves, grass clippings, tree and shrub trimmings and plant remains.</u>

Simple Language Clarifications

PAR 219 Reference	Proposed Language
(j)(4)	Equipment used exclusively for softening or annealing plastics, provided such equipment is exempt pursuant to paragraph (b)(2). <u>This exemption does not include equipment used for recycling of expanded polystyrene.</u>
(j)(6)	Injection or blow molding equipment for rubber or plastics where no blowing agent <u>is used, or where other than only</u> compressed air, water or carbon dioxide is used <u>as a blowing agent</u> , and control equipment used to exclusively vent such equipment.
(o)(3)	Cleaning equipment using materials with a VOC content of twenty-five (25) grams of VOC per liter of material, or less, and associated dryers exclusively serving these cleaners, provided such equipment is also exempt pursuant to paragraph (b)(2). <u>This exemption does not include equipment used for cleaning of diesel particulate filters (DPF) and associated control equipment used to vent such equipment.</u>

Deminimis Emissions <1 lb/day

PAR 219 Reference	Proposed Language
(i)(8)	Coffee roasting equipment with a maximum capacity of 10 pounds <u>15 kilograms</u> or less, and control equipment used to exclusively vent the equipment.
(b)(2)	. . . This exemption does not apply whenever there are emissions other than products of combustion, unless the equipment is specifically exempt under another section of this rule, except for food ovens with a rated maximum heat input capacity of 2,000,000 Btu/hour or less, that are fired exclusively on natural gas and where the <u>process</u> VOC emissions from yeast fermentation are less than one pound per day, <u>and</u> provided a filing pursuant to Rule 222 is submitted to the Executive Officer.

Deminimis Emissions <1 lb/day

PAR 219 Reference	Proposed Language
(b)(5)	<p>Fuel cells, which produce electricity in an electro-chemical reaction and use phosphoric acid, molten carbonate, proton exchange membrane, or solid oxide technologies; and associated heating equipment, <u>provided the heating equipment:</u></p> <p><u>(A) does not use a combustion source; or</u></p> <p><u>(B) is fueled exclusively with natural gas, methanol, liquefied petroleum gas, or any combination thereof,</u> including heaters that have a rated maximum heat input capacity of greater than 2,000,000 Btu per hour, provided that the supplemental heat used is 90,000 therms per year or less and provided a filing pursuant to Rule 222 is submitted to the Executive Officer.</p>

Deminimis Emissions <1 lb/day

PAR 219 Reference	Proposed Language
(i)(13)	<u>Equipment used in preparation and manufacturing of packaged food, including pet food, provided VOC and PM emissions are each one pound per day or less, and provided such equipment is exempt pursuant to paragraph (b)(2), and provided a filing pursuant to Rule 222 is submitted to the Executive Officer.</u>
(k)(10)	<u>Equipment used for mixing and blending of dry materials, including powders where the mixing or blending operation does not use or emit any toxic air contaminant listed in Rule 1401, Table 1, and where the total dry material throughput in the mixing or blending operation is less than 500 pounds per day.</u>

Deminimis Emissions

PAR 219 Reference	Proposed Language
(i)(3)	Confection cookers where products are edible and intended for human consumption, <u>provided such equipment is exempt pursuant to (b)(2)</u> .
(b)(1)	Internal combustion engines with a manufacturer's rating of 50 brake horsepower or less; or internal combustion engines, used exclusively for electrical generation at remote two-way radio transmission towers where no utility, electricity or natural gas is available within a ½ mile radius, with a manufacturer's rating of 100 brake horsepower or less and are fired exclusively on diesel #2 fuel, <u>compressed natural gas (CNG) or liquefied petroleum gas (LPG)</u> ; or stationary gas turbine engines

Deminimis Emissions

PAR 219 Reference	Proposed Language
(c)(11)	<u>Sub-slab Ventilation systems and associated air pollution control with an aggregate flow rate of less than 200 standard cubic feet per minute (scfm) where vacuum suction pits do not penetrate more than 18 inches below the bottom of the slab, provided the inlet total organic compounds concentration does not exceed 15 ppmv, measured as hexane, and provided the ventilations system is connected to air pollution control equipment consisting of a carbon adsorber sized to handle at least 200 scfm, or equivalent air pollution control.</u>
(i)(14)	<u>Equipment used to manufacture beer, wine, and spirits where total production is less than one million gallons per year, provided all equipment used in the manufacturing operation is exempt pursuant to paragraph (b)(2).</u>

Deminimis Emissions

PAR 219 Reference	Proposed Language
(i)(12)	Charbroilers, <u>barbecue grills, and other underfired grills fired on solid or gaseous fuels used</u> in multi-family residential units only if used by the owner or occupant of such dwelling for non-commercial purposes.
(p)(10)	Paper shredding and carpet, <u>fabric</u> and paper shearing, <u>brushing and/or sueding</u> as well as associated conveying systems, baling equipment, and control equipment venting such equipment. <u>This exemption does not include carpet and fabric recycling operations.</u>

Toxics or Health Risk or Nuisance Odor Potential

PAR 219 Reference	Proposed Language
(g)(5)	<u>Equipment used for separation or segregation of plastic materials intended for recycling, provided there is no mechanical cutting, shredding or grinding and where no odors are emitted.</u>
(e)(8)	Welding equipment, oxygen gaseous fuel-cutting equipment, laser etching <u>or engraving</u> equipment, engraving of metal equipment and associated <u>air pollution</u> control equipment. This exemption does not include plasma arc-cutting equipment or laser cutting equipment that is used to cut stainless steel, or <u>alloys steels</u> containing chromium, nickel, cadmium or lead <u>where such alloying elements were added to the steel as part of the manufacturing process</u> , or laser cutters that are rated more than 400 watts and control equipment venting such equipment.
(c)(12)	<u>Outdoor shooting or firing ranges.</u>

Unique Situations/ Limited Number of Sources

PAR 219 Reference	Proposed Language
(g)(4) - previously under (g)(1)	<u>Concrete and Asphalt: Equipment used for patching and repairing asphalt and concrete surfaces. This exemption does not include asphalt pavement grinders or portable asphalt recycling equipment.</u>
(c)(5)	Equipment utilized exclusively in connection with any structure which is designed for and used exclusively as a dwelling for not more than four families, and where such equipment is used by the owner or occupant of such a dwelling. <u>This exemption does not include non-emergency internal combustion engines used to provide prime power for the structure.</u>

Unique Situations / Limited Number of Sources

PAR 219 Reference	Proposed Language
(m)(9)	Equipment used exclusively for VOC containing liquid storage or transfer to and from such storage, of less than 950 liters (251 gallons) capacity or equipment used exclusively for the storage of odorants for natural gas, propane, or oil with a holding capacity of less than 950 liters (251 gallons) capacity and associated transfer and control equipment used exclusively for such equipment provided a filing pursuant to Rule 222 is submitted to the Executive Officer. This exemption does not include asphalt. <u>In addition, this exemption does not apply to a group of more than one tank where each tank is less than 950 liters (251 gallons), but storage capacity of all tanks combined exceed 950 liters (251 gallons), mounted on a shared mobile platform and used for storage at a facility.</u>

Streamline Exemption to Require Permit vs Registration

PAR 219 Reference	Proposed Language
(d)(3)	<p>Water cooling towers and water cooling ponds not used for evaporative cooling of process water or not used for evaporative cooling of water from barometric jets or from barometric condensers and in which no chromium compounds are contained, <u>including:</u></p> <p><u>(A) Cooling towers used for comfort cooling; and</u></p> <p><u>(B) Industrial cooling towers located in a chemical plant, refinery or other industrial facility, provided a filing pursuant to Rule 222 is submitted to the Executive Officer.</u></p>
(n)(1 – 5)	<p>Natural Gas and Crude Oil Production Equipment</p> <p><u>Provided a filing pursuant to Rule 222 is submitted to the Executive Officer, the following equipment is not subject to permitting:</u></p> <p>(1) Well heads and well pumps.</p> <p>(2) Crude oil and natural gas pipeline-transfer pumps.</p>

Streamline Exemption to Require Permit vs Registration

PAR 219 Reference	Proposed Language
(s)(4)	<u>Basic or control equipment subject to permitting requirements pursuant to Regulation XIV - Toxics and Other Non-criteria Pollutants.</u>
(l)(9)	Portable coating equipment and pavement stripers used exclusively for the application of architectural coatings, <u>provided no supplemental heat is added during the coating or pavement striping operation,</u> and associated internal combustion engines provided such equipment is exempt pursuant to subdivision (a) or paragraph (b)(1).

Additional Rule Changes not Previously Discussed

PAR 219 Reference	Proposed Language
(g)(1)	Equipment used exclusively for buffing (except tire buffers), polishing, carving, mechanical cutting, drilling, machining, pressing, routing, sanding, stamping, surface grinding or turning provided that any lubricants, coolants, or cutting oils used have 50 grams or less of VOC per liter of material or a VOC composite partial pressure of 20 mm Hg or less at 20 °C (68 °F) and control equipment used to exclusively vent such equipment. This exemption does not include asphalt pavement grinders.
(p)(11)	Chemical vapor type sterilization equipment where no Ethylene Oxide is used, and with a chamber volume of two (2) cubic feet or less used by healthcare facilities and control equipment exclusively venting the equipment. <u>This exemption does not include equipment used for incineration.</u>

Additional Rule Changes not Previously Discussed *(cont)*

PAR 219 Reference	Proposed Language
(s)(2)	Equipment when the Executive Officer has determined that: <u>(A)</u> the risk will be greater than identified in subparagraph (d)(1)(A), or paragraphs (d)(2) or (d)(3) in Rule 1401 – New Source Review of Toxic Air Contaminants; or, <u>(B)</u> the equipment may not operate in compliance with all applicable District Rules and Regulations, <u>including but not limited to SCAQMD Rule 402 – Nuisance.</u>

Exemptions Requested by Stakeholders after First W.G. Meeting

- ▣ 17 requests for new/amended exemptions
 - Cooling towers
 - Bench-scale operations
 - Aqueous ammonia storage
 - Chlorine storage
 - PERP engines
 - Floating roof tanks
 - UV/EB/LED materials
 - Decarbonators for water treatment
 - Spray booths
 - Oil & gas wells
 - Food ovens

Cooling Towers

Comment	Response
Consider particle size distribution of drift particles	More detailed calculation methodology during cooling tower rule development
Allow registration (Rule 222) of all cooling towers at a facility on one form	Staff supports this approach
Revisit calculation methodology for HVAC cooling towers	Require registration only for non-HVAC cooling towers

Cooling Towers *(cont)*

PAR 219 Reference	Proposed Language
(d)(3)	<p>Water cooling towers and water cooling ponds not used for evaporative cooling of process water or not used for evaporative cooling of water from barometric jets or from barometric condensers and in which no chromium compounds are contained, <u>including:</u></p> <p><u>(A) Cooling towers used for comfort cooling; and</u></p> <p><u>(B) Industrial cooling towers located in a chemical plant, refinery or other industrial facility, provided a filing pursuant to Rule 222 is submitted to the Executive Officer.</u></p>

Bench Scale Operations

- ▣ Proposal
 - Remove “bench scale” from exemption
 - Provide emission limit-based exemption instead
 - SJVAPCD exempts lab & QC testing equipment up to 2 lbs/day or 75 lbs/yr
- ▣ Did not incorporate this proposal
 - “Bench scale” is enforceable in the field
 - Allowing an additional emissions based approach could involve complex recordkeeping and potential approved test methods

Aqueous Ammonia

▣ Proposal

- Provide exemption for aqueous ammonia storage
 - ▣ Solutions of less than 20% ammonia
- Description of process
 - ▣ Large ammonia tanks vented to absorber tanks
 - ▣ Ammonia tanks have PRV to maintain atm pressure

▣ Did not incorporate this proposal

- Precedent for permitting aqueous ammonia storage
 - ▣ 2 recent permits issued for storage of <20% aqueous ammonia solutions
 - Used for SCR
 - ~10,000 gallon tanks
- Permitting process ensures application of appropriate controls

Storage of Chlorine

- ▣ 2 commenters
 - Provide exemption for chlorine storage under (m)(2)(D)
 - Chlorine storage and transfer are already heavily regulated by other agencies
- ▣ Original proposal consideration
 - Clarify storage and transfer equipment exemption to add liquefied or compressed gases containing toxics listed in Form 400-CEQA, Table 1 (for accidental release prevention)

Storage of Chlorine

(cont)

- ▣ Internal discussions among staff
 - Original proposal arose due to CEQA concerns
 - ▣ Existing Cl₂ storage CEQA baseline; not project
 - ▣ 400-CEQA Table 1 list vs. CalARP list
 - ▣ SCAQMD not always lead agency for new projects
 - Chlorine not used in conjunction with District-permitted equipment (basic or control)
- ▣ Removing (m)(2)(D) from proposal, pending additional legal review

PERP Engines

- ▣ Multiple commenters
- ▣ Allow PERP engine to back up permitted back up emergency generators in certain situations
- ▣ Scheduling of engine replacement doesn't always work with current PERP requirements
- ▣ Expand exemption to engines operating in the Outer Continental Shelf
- ▣ Internal request to address issue with emission reporting for R219-exempt equipment at RECLAIM facilities
- ▣ Numerous internal and stakeholder discussions

PERP Engines

(cont)

- ▣ Responses and Status
 - OCS usage of PERP engines addressed during 2013 amendment to Rule 219
 - ▣ Usage is specifically excluded in PERP Reg [§2451(c)(5)]
 - ▣ Subject to District permitting requirements
 - PERP Regulation is currently under amendment, including implementation guidance through CARB
 - A PERP engine is exempt from R 219 if it complies with the PERP Regulation
 - Specific PERP engine applications and uses will be addressed on case-by-case basis by Compliance & Enforcement staff through delegated authority

PERP Engines

(cont)

PAR 219 Reference	Proposed Language
(b)(8)	Portable internal combustion engines, including any turbines qualified as military tactical support equipment under Health and Safety Code Section 41754, registered pursuant to the California Statewide Portable Engine Registration Program equipment, pursuant to paragraph (r)(1).

PERP Engines

(cont)

PAR 219 Reference	Proposed Language
(r)(1)	<p>Any portable equipment, <u>including any turbines qualified as military tactical support equipment under Health and Safety Code Section 41754</u> which is registered in accordance with the Statewide Portable Equipment Registration Program (<u>PERP</u>) adopted pursuant to California Health and Safety Code Section 41750 et seq. <u>PERP registered equipment operated at a RECLAIM Facility, shall be classified as Major Source, Large Source or Process Units in accordance with Rule 2011 (c) and (d) for SOx emissions and Rule 2012 (c), (d) and (e) for NOx emissions for purposes of determining the applicable requirements for Monitoring, Reporting and Recordkeeping (MRR). Use of RECLAIM MRR Protocols for Rule 219 equipment as specified in Rule 2011 (Rule 2011 Protocol, Appendix A, Chapter 3, Subsection F) and Rule 2012 (Rule 2012 Protocol, Appendix A, Chapter 4, Subsection F is only allowed if the registered PERP equipment also qualifies for an exemption from permit under a separate provision of this Rule.</u></p>

Floating Roof Tanks

▣ Proposal

- Provide new exemption for vapor socks in lieu of guidepole floats on floating roof tanks with slotted guidepoles
- Vapor socks allow radar gauging to detect liquid levels
- May impact up to 15 facilities and 200 tanks
- EPA Method 21 VOC testing demonstrates low emissions

Floating Roof Tanks

(cont)

- ▣ Proposal under review
 - Existing permits describe guidepole floats or sleeves
 - Review Rule 1178 (d)(1)(A) for consistency with proposal
 - May consider for Rule 463 facilities

Ultraviolet/Electron Beam (UV/EB) Materials

▣ Comments

- Provide incentives for super-compliant materials, in terms of reduced permitting requirements
- Rule requirements are difficult to decipher
 - ▣ Separate solids, waterborne & solvent categories
- Offer consideration for lack of add-on control equipment in UV/EB printing/coating operations
- Comments favorable to UV/EB technology were made by a Board member at SSC meeting
- Industry prefers not to be subject to registration under PAR 222

Ultraviolet/Electron Beam (UV/EB)

Materials *(cont)*

- ▣ Industry proposal:
 - *“UV/EB/LED materials containing fifty (50) grams of VOC per liter of material, and using exclusively cleanup solvents containing fifty (50) grams of VOC per liter or less.”*
- ▣ Current technology is lower than 50 g/l
 - Supercompliant coatings are <10 g/l
 - Rule 1171 requires 25 g/l for cleanup solvents
- ▣ Internal discussions regarding proposal
- ▣ Met with stakeholders subsequent to first PAR 219/222 working group meeting
 - Additional meeting(s) planned
- ▣ Proposal and possible alternatives under consideration
 - No proposed language yet

Decarbonators for Water Treatment

- ▣ Proposal
 - Provide new exemption for decarbonators that reduce carbonate in water supplied to reverse osmosis system
 - Decarbonator
 - ▣ Purpose is to reduce chloride in effluent
- ▣ Primarily CO₂ emissions (GHG) – very low criteria pollutant emissions
- ▣ Existing source test on similar operation

Decarbonators for Water Treatment

(cont)

▣ Proposal

- Language suggested by commenter: *“Equipment adjusting treated effluent pH using a forced air draft decarbonator installed as part of an advanced wastewater treatment facility using reverse osmosis or similar processes at an existing permitted municipal wastewater treatment plant immediately prior to beneficial reuse”*

▣ Proposal still under evaluation

- No proposed language yet

Spray Booths

▣ Comments & Proposal

- Commenter paints large items that do not fit into an exempt spray booth ($<27\text{ft}^3$)
- Expand exemption under 219(l)(8) to allow spray booths $>27\text{ft}^3$, provided:
 - ▣ Rule 222 registration is filed; and
 - ▣ Only aerosol cans, air brushes and hand applications are used

▣ Did not incorporate proposal

- Intent of exemption was to allow hobbyists to spray paint, not commercial or high use operations

Oil and Gas Wells

- ▣ Comments & Proposal
 - Current Rule 222 filing done for groups of 4 wells
 - Registration does not identify wells
 - Proposal: allow all oil and gas wells to be registered under one Rule 222 filing
- ▣ Staff agrees with this proposal
 - Form 222-OW proposed to be modified to collect additional information, including:
 - ▣ API number
 - ▣ All active and inactive wells at facility
 - Registration fee based only on active wells
 - Filing/registration fee equivalent to current fee
 - Annual re-registration, since wells can be activated or inactivated during any given year

Oil and Gas Wells

(cont)

PAR 219 Reference	Proposed Language
(n)(1 - 3)	<p>(n) Natural Gas and Crude Oil Production Equipment</p> <p><u>Provided a filing pursuant to Rule 222 is submitted to the Executive Officer, the following equipment is not subject to permitting:</u></p> <ul style="list-style-type: none">(1) Well heads and well pumps.(2) Crude oil and natural gas pipeline transfer pumps.

Food Ovens

▣ Comments & Proposal

- Rule 219(b)(2) limits non-combustion (VOC) emissions to 1 lb/day from small food ovens (<2,000,000 Btu/hr)
 - ▣ 1 lb/day is threshold for NSR
- Modify 219(b)(2) to provide an alternative to the daily limit:
 - ▣ Annual limit (365 lbs/yr): average over rolling 12-months, or 30-day average

▣ Did not incorporate proposal

- New Source Review does not allow the proposed averaging scenario(s)
- Rule 1301(b)(1) applies to any new and existing source that cause "... issuance of any air contaminant .
.."

Next Steps

- ▣ Staff to continue developing facility universe and emissions inventory for each exemption source category
- ▣ Site visits to see equipment for proposed exemptions
 - Natural gas storage fields
 - Vapor socks on floating roof tanks
- ▣ Additional feedback requested by November 30, 2016
- ▣ Next working group meeting – December or January

Amended Schedule

Meeting	Date
Next Working Group	December or January
Public Workshop	Mid December
Stationary Source Committee	January 20, 2017
Set Hearing	February 3, 2017
Public Hearing	March 3, 2017