

San Joaquin Valley
Unified Air Pollution Control District

District Policy APR 1210

Rule 2201 Requirements for Routine Replacement Emissions Units
And
Rule 2020 Exemption for Identical Routine Replacements

Approved By: 	Date: March 17, 2016
Arnaud Marjollet Director of Permit Services	Revised: August 23, 2019

I. PURPOSE

To clarify the Rule 2201 New and Modified Stationary Source Review requirements for Routine Replacement Emissions Unit and to clarify the Rule 2020 Exemptions permit exemption for identical routine replacements. Please note that these clarification do not change the longstanding District's interpretation or implementation of Rule 2201.

II. APPLICABILITY

This policy is applicable when determining if the replacement in whole or in part of an emission unit qualifies as a Routine Replacement Emissions Unit pursuant to Rule 2201 and whether identical replacement in whole or in part of an emissions unit qualifies for a permit exemption pursuant to Rule 2020 section 7.1.

III. DEFINITIONS - BACKGROUND

Routine Replacement Emissions Unit:

Rule 2201 section 3.35 provides the following definition of Routine Replacement Emissions Unit:

- 3.35. *Routine Replacement Emissions Unit: routine replacement in whole or in part of any article, machine, equipment, or other contrivance with a valid District Permit to Operate provided that all of the following conditions are met:*
- 3.35.1 *There is no increase in permitted emissions from the replacement unit(s). For replacements at major sources, "no increase in permitted emissions" as used in this definition also means no significant emissions increase according to the applicability calculations of 40 CFR 51.165(a)(2)(ii)(C). For the purposes of this definition, a Routine Replacement Emissions Unit is an existing emissions unit.*
- 3.35.2 *There is no increase in design capacity, unless an old part is no longer available in which case the replacement can result in a design capacity increase of up to 10%. No change to the permitted throughput or emission limits is authorized due to a change in design capacity as part of a replacement. Such changes shall require application for permit modification.*
- 3.35.2.1 *Permitted throughputs are throughput limits upon which emission calculations are, or could be, based.*
- 3.35.2.2 *If there are no throughput limiting conditions, permitted throughput shall be a throughput rate which affects emissions.*
- 3.35.3 *The replacement equipment performs the same function as the equipment being replaced.*
- 3.35.4 *The replacement does not constitute a Reconstructed Source (as defined by this rule) or Reconstruction (as defined by any applicable New Source Performance Standard). Reconstructed Source cost shall include only the cost of all emission-producing equipment and associated integral activities at the stationary source.*
- 3.35.5 *When the entire emissions unit is replaced as a routine replacement action, the emissions unit shall either have been addressed by a BARCT rule or shall be equipped with a control device capable of at least 85% emission control.*

Rule 2201 section 4.2.6 provides an exemption from BACT requirements for Routine Replacement Emissions Unit.

Reconstructed Source:

Reconstructed Source, as defined in Rule 2201, means

3.34. *Reconstructed Source: any stationary source undergoing reconstruction where the fixed capital cost of the new components exceeds 50% of the fixed capital cost of a comparable, entirely new stationary source. Fixed capital cost is the capital needed to provide depreciable components. Reconstructed Source cost shall include only the cost of all emission-producing equipment and associated integral activities at the stationary source. A reconstructed Stationary Source shall be considered a new Stationary Source and not as a modification of an existing Stationary Source.*

Reconstruction:

Reconstruction, as defined in Rule 4001 (by reference to 40 CFR Part 60 Subpart A 60.15), means the replacement of components of an existing facility (existing facility, for the purpose of Rule 4001, means equipment for which there is an NSPS standard and which was constructed or modified prior to the effective date of the applicable subpart) to such an extent that the fixed capital cost of the new components exceeds 50% of the fixed capital costs that would be required to construct a comparable entire new facility, and it is technologically feasible to meet the applicable standards set forth in the subject part of Rule 4001 (40 CFR Part 60).

Maintenance, repair and replacement that the Air Pollution Control Officer determines to be routine for a source category does not constitute a modification, except as provided for in NSPS Subpart A sections 60.14(c) and 60.15.

IV. GUIDANCE

A. For Non-Major Sources: Rule 2201 Routine Replacement Emissions Unit Requirements

In determining if an emission unit qualifies as a Routine Replacement Emissions Unit, only the definition of Routine Replacement Emissions Unit shall be utilized.

District Rule 2201, Section 3.35.2 requires that the Routine Replacement Emissions Unit not result in an increase in design capacity, with an exception for when the old "part" is no longer available. In such cases, the design capacity can increase up to 10%. Further, sections 3.35.2.1 and 3.25.2.2 imposes restrictions on the throughput of the replacement emission unit if it has an increase in design capacity. This restriction directly affects the throughput and emissions of a Routine Replacement Emissions Unit. Taken

together sections 3.35.2.1 and 3.25.2.2, section 3.35.2 allows for partial or total Routine Replacement Emissions Unit provided the design capacity does not increase by more than 10% and the other provisions of Rule 3.35 are satisfied.

The definition of Routine Replacement Emissions Unit in section 3.35.1, of Rule 2201 indicates that a Routine Replacement Emissions Unit can consist of more than one unit. Therefore, a Routine Replacement Emissions Unit can be single emission unit that replaces a single emission unit, a single emission unit that replaces more than one emission unit, or multiple emission units that replace one or multiple emission units as long as sections 3.35.2.1 and 3.25.2.2 of rule 2201 are satisfied.

For example, a 190 hp IC engine proposed to replace two 100 hp IC engines could qualify as a Routine Replacement Emissions Unit or two 90 hp IC engines proposed to replace a 200 hp IC engine could qualify as a Routine Replacement Emission Unit.

B. For Major Sources: Rule 2201 Routine Replacement Emissions Unit Requirements

Rule 2201 section 3.35.2 includes specific additional criteria for Routine Replacement Emission Units at major sources.

For units located at a major source in addition to the requirement that there be no increase in permitted emissions, the Routine Replacement Emissions Unit can not result in a significant emission increase (0 lb/year for NO_x and VOC, 20,000 lb/year for PM_{2.5}, 30,000 lb/year for PM₁₀, or 80,000 lb/year for SO_x) as calculated using the procedures in 40 CFR 51.165(a)(2)(ii)(C). Please note for this calculation, a Routine Replacement Emissions Unit is treated as an existing emission unit.

Further, the Routine Replacement Emissions Unit must meet the definition of Replacement Unit in 40 CFR 51.165 (a)(1)(xxi), as follows:

Replacement unit means an emissions unit for which all the criteria listed in paragraphs (a)(1)(xxi)(A) through (D) of this section are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced.

(A) The emissions unit is a reconstructed unit within the meaning of §60.15(b)(1) of this chapter, or the emissions unit completely takes the place of an existing emissions unit.

(B) The emissions unit is identical to or functionally equivalent to the replaced emissions unit.

(C) The replacement does not alter the basic design parameters (as discussed in paragraph (h)(2) of this section) of the process unit.

(D) The replaced emissions unit is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.

The criteria in 40 CFR 51.165 (a)(1)(xxi) applies on an emission unit by emission unit basis and does apply to groups of emission units. As such, for major sources, a replacement unit can only replaces a single emission unit provided it meets the above criteria.

Pursuant to 40 CFR 51.165(a)(2)(ii)(C), the emission increase is the difference between the projected actual emissions from the Routine Replacement Emissions Unit and the baseline actual emission from the existing emission unit.

Please note, in calculating the emission increase, it is allowable to exclude the emission from the Routine Replacement Emissions Unit that the existing unit could have accommodated before the replacement (see 40 CFR 51.165(a)(1)(xxviii)(B)(3)). It is important in making this determination, that the emissions that may be excluded are based on what the emission unit could actually emit during the baseline period, and not what it could have theoretically emitted during the baseline period.

If the emission increase is significant, then the replacement does not qualify as a Routine Replacement Emissions Unit. As such, the BACT exemption on Rule 2201 would not be applicable.

C. Identical Routine Replacements: Rule 2020 Section 7.1 Exemption

Rule 2020 section 7.1 provides the following exemption from the need to obtain an ATC:

7.0 No Authority to Construct or Permit to Operate shall be required for the following activities:

Routine replacement of a whole or partial emissions unit where the replacement part is the same as the original emissions unit in all respects except for the serial number and the action does not create a reconstructed Stationary Source.

[...]

Please note that the Rule 2020 definition of Routine Replacement refers to the Rule 2201 definition or Routine Replacement that has been replaced by

Routine Replacement Emissions Unit. Therefore, for purposes of Rule 2020 section 7.1, the definition of Routine Replacement Emissions Unit (above) shall be used. Please note that there is not requirement that the replacement be conducted as part of routine activity.

When determining whether the replacement of a whole or partial emission unit qualifies for the exemption from the requirement to obtain an ATC in Rule 2020 section 7.1, the first step is to determine if the replacement (in whole or in part) meets the criteria for a Routine Replacement Emissions Unit as discussed above.

If the replacement does not qualify as a Routine Replacement Emissions Unit, as discussed above, it does not qualify for the exemption in Rule 2020 section 7.1 for identical Routine Replacements.

However, in cases where the replacement (in whole or in part) qualifies as a Routine Replacement Emissions Unit, such a replacement can qualify for the exemption from the requirement to obtain an ATC in Rule 2020 section 7.1 if the replacement is identical to the original emissions unit in all respects except the serial number and the replacement does not constitute a Reconstructed Stationary Source (as defined in Rule 2020).

In certain cases, it is necessary to determine whether the Routine Replacement Emissions Unit is the same as the original, such as when manufacturers "improve" their products and no longer manufacture the previous model. Such changes can be cosmetic or only affect the components that do not impact air emissions. The focus in determining if a Routine Replacement Emissions Unit qualifies as an identical routine replacement must be on the components that affect the quantity of air emissions. In other words, the replacement unit must be identical in all respects that affect emissions. Therefore, a Routine Replacement Emissions Unit will be considered to be the same as the original emissions units in all respects if the following conditions are met:

1. The manufacturer is the same,
2. The model number is the same (except if the old model is no longer manufactured),
3. All components that affect the quantity of emissions are identical. The emissions from the new unit must be equal to or less than the emissions from the old unit, and
4. The equipment rating is the same.

The permittee may supply written notification to the District of a proposed identical routine replacement not required to obtain an ATC. Such notification should include:

1. the District permit number,

2. the serial number of the identical routine replacement, and
3. the date the identical routine replacement is expected to be installed.

It is recommended that sources provide this notification so that the District can confirm that the proposed replacement qualifies as an identical routine replacement and therefore exempt from ATC permit requirements. Please note that while such notification is not required, it is the responsibility of the source to comply with the criteria for identical routine replacements specified in Rule 2020 for any proposed replacement.