



## MEMORANDUM

**DATE:** November 2, 2011, revised January 9, 2014, August 27, 2015

**TO:** Engineering Services Division

**FROM:** Liz Basil, Director of Engineering Services Division

**THROUGH:** Steve McCaslin, Piedmont Permitting Section Manager

**SUBJECT:** Guidance Document; Like-for-Like replacement of equipment and control device(s) at Prevention of Significant Deterioration (PSD) Major Sources

South Carolina Regulation 61-62.1, Definitions and General Requirements, Section (II)(A)(1)(b) allows the Department of Health and Environmental Control (Department) to grant permission to proceed with minor alterations or additions without issuance of a permit when the Department determines that the alteration or addition will not increase the quantity or alter the character of the source's emissions. Also in accordance with SC Regulation 61-62.1, Section (II)(B)(5), a facility may request an exemption from the requirement to obtain a construction permit for modifications to existing equipment, including the reconstruction, relocation, and replacement of existing equipment. This memo provides guidance to staff in making the determination of when a "like-for-like" replacement of equipment and/or control device(s) will be allowed without a construction permit. This memo only addresses when a like for like replacement of equipment will be exempted from construction permit requirements, facilities must continue to follow the appropriate operating permit modification procedures for the type of operating permit they hold.

A facility may not be required to obtain a construction permit for like-for-like replacement of equipment if all of the following requirements/conditions are met:

- Equipment being replaced was constructed/installed with appropriate permits as required;
- The replacement equipment will perform the same function as the equipment being replaced;
- Permit limits are not exceeded and no new regulatory requirements are added due to installation of the new replacement equipment;
- The replacement will not result in a significant emissions increase as defined by SC regulation 61.62-5 Standard 7, paragraph b(50);
- Potential net hourly emissions will not be increased greater than one pound per hour and/or five (5) tons per year (tpy) due to the replacement;
- Production capacity or throughput will not be increased;

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- Replaced equipment will not result in debottlenecking or restoring lost capacity;
- The replacement is not considered a modification or reconstruction under 40 CFR Parts 60, 61 or 63; and
- Compliance with SC Regulation 61-62.5, Standard No. 2 (Ambient Air Quality Standards), Standard No. 7, Prevention of Significant Deterioration (PSD), and Standard No. 8, Toxic Air Pollutants, will not be affected.
- Testing requirements may still apply even if construction permits are not required, for example, any one time initial source tests must be repeated and any current permit requirements for source test still apply.

A facility may not be required to obtain a construction permit for like-for-like replacement of a control device(s) if all of the following requirements are met:

- The new control device is of the same make, model, and manufacturer as the one being replaced; or,
- The control device is not of the same make, model, and manufacturer, and the facility demonstrates that the projected capture, and destruction, control, or removal efficiency of the replacement control device for the pollutant(s) of concern is (are) equal to or greater than that of the control device being replaced; and
- Permitted limits will not be exceeded and no new permit requirements will need to be added due to installation of the new control device.
- Testing requirements may still apply even if construction permits are not required, for example any one time initial source tests must be repeated and any current permit requirements for source test still apply.
- Existing permit terms and conditions applicable to the existing equipment will continue to apply to the replacement equipment.

#### **Procedures for like-for-like replacement of equipment:**

Like-for-like replacement of process equipment under this guidance will be allowed without obtaining prior approval from the Bureau of Air Quality. As part of this flexibility, the facility shall keep an on-site implementation log (OSIL) to document all changes made under this guidance. The OSIL shall provide detailed information supporting the changes made under this guidance. The OSIL shall be readily available to the Bureau of Air Quality and submitted to the Director of Engineering Services Division at the time any operating permit renewal or modification request is submitted. If your current

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permit has requirements for an OSIL incorporated you should submit the OSIL as required by the permit. At a minimum, all of the following items shall be included in the OSIL:

- A brief description of unit being replaced, including equipment identification number and operating permit unit identification number, a description of why the equipment is being replaced, and the regulation(s) applicable to the equipment being replaced;
- A list of pollutant(s) being controlled;
- A demonstration that no new regulations, standards, or requirements will be triggered by the replacement;
- A demonstration that the potential to emit (PTE), allowable limits, and potential hourly emissions will not be increased;
- A demonstration that no debottlenecking, production, or throughput increases will occur due to this replacement;
- A demonstration that the facility has conducted an actual-to-actual or actual-to-potential emissions test to demonstrate the project does not result in a significant emissions increase;
- A description of the applicability test used to determine that the project is not a major modification for any regulated New Source Review (NSR) pollutant. The baseline actual emissions shall be calculated according to SC Regulation 61.62.5 Standard 7, paragraph b(4). If using the actual-to-projected-actual applicability test, the projected actual emissions, shall be calculated according to SC Regulation 61.62.5, Standard 7, paragraph (b)(41)(i); and
- Replacement projects where there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall monitor the emissions of any regulated NSR pollutant(s) that could increase as a result of the replacement. The facility must calculate and maintain a record of the annual emissions, in tpy on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or PTE of that regulated NSR pollutant.

**Procedures for like-for-like replacement of a control device:**

Like-for-like replacement of a control device under this guidance will require prior notification and written approval from the Bureau of Air Quality unless the control device is replaced with the same model as the existing control device or a like control device that has the same or greater control efficiencies. In such cases, only prior notification is required. The prior notification for control device replacements *that require department approval* should be in the form of a request for a construction permit exemption. The permit exemption request should include the specifics of the project and any

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supporting calculations and control device specifications. Permit exemption request shall include, but is not limited to, the following information:

- Make, model, and manufacturer of the control device being replaced, including sufficient description for a complete review of the control device replacement request and documentation for the files;
- A list of pollutant(s) being controlled;
- A comparison of the actual and potential emissions for the old control device(s) and the new control device(s);
- A regulation review to demonstrate that the source is not subject to any federal requirements or federally enforceable permit terms and conditions; and
- Proof that this action is an allowable routine replacement if a federal standard is triggered.

The Department reserves the right to specify in an approval letter that the facility may also be required to conduct a source test and submit revised control device monitoring parameters, monitoring ranges and required notifications.

**Source Testing Requirements:**

An exemption from the requirement to obtain a construction permit, granted by the Department for any like-for-like replacement of equipment or control devices based on the above guidance, does not relieve a facility from the obligation to conduct source tests required by any applicable regulation, standard, or permit condition. Any source subject to source testing requirements must conduct the source test in accordance with the provisions of SC Regulation 61-62.1 - Definitions and General Requirements, Section IV, Source Tests, and under 40 CFR Part 60, 61 or 63 (if applicable), to demonstrate compliance with the standards. Operating parameter ranges will be submitted and reviewed in accordance with the operating permit or exemption letter requirements.

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<b>Record of Revisions</b>	
<b>DATE</b>	<b>Description of Change</b>
January 9, 2014	No longer require approval by the Bureau for a like replacement of a control device with same or greater control efficiency.
August 27, 2015	Clarify that facilities must still follow the appropriate operating permit modification procedures.