



MEMORANDUM

DATE: November 2, 2011, revised January 09, 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 Non-Prevention of Significant Deterioration (PSD) 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 is to provide guidance to staff in making the determination of when a "like-for-like" replacement of existing 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 existing equipment if all of the following requirements/conditions are met:

- Equipment being replaced was constructed/installed with appropriate permits as required;
- The replacement equipment should 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; and
- Potential hourly emissions will not be increased greater than one pound per hr and/or five (5) tons per year (tpy) due to replacement;
- Production capacity or throughput will not be increased;
- The replacement is not considered a modification or reconstruction under 40 CFR Part 60, 61 or 63; and

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- 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.
- Existing permit terms and conditions applicable to the existing equipment will continue to apply to the replacement equipment.

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.
- The control device being replaced may or may not be of the same form/type as the replacement unit (i.e., a bag house could be replaced with an ESP or a wet scrubber).

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 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, description of why the equipment is being replaced and the regulation governing the equipment being replaced;
- A list of pollutant(s) being controlled by the control device;

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- A demonstration that no new regulations, standards or requirements will be triggered by the replacement;
- A demonstration that the potential hourly emissions will not be increased greater than one pound per hr and/or five (5) tons per year due to replacement; and
- A demonstration that allowable/permitted limits will not be exceeded; and
- A demonstration that no debottlenecking, production or throughput increases will occur due to this replacement.
- An applicability determination showing the proposed physical or operational change will not change the previous air dispersion modeling for the facility, in accordance with South Carolina 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. Any changes in the parameters used in the air dispersion modeling may require a review by the Department to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified.

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

Like-for-like replacement of control devices 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 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 thorough review 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 and the new control device;
- A regulation review to demonstrate that the source is not subject to any federal requirements or federally enforceable permit terms and conditions, and

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- Provide 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 facility 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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RECORD OF REVISIONS	
Date	Description of Change
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.