

IEEE Standards Interpretation for IEEE Std 387™-1995 IEEE Standard Criteria for Diesel-Generator Units Applied as Standby Power Supplies for Nuclear Power Generating Stations

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Interpretation Request #1

Topic: Clarification **Relevant Clause:** 5.1.4

As per 5.1.4 of IEEE Std 387-1995, substitutions indicated in the standard, “when tests are performed at the manufacturer’s or assemblers’ facilities, and not at the site, the exhaust muffler, intake air filter-silencer, and radiator (if applicable) normally used for shop tests may be substituted in place of the equipment to be provided for a specific site, since it is not practical to utilize the equipment at the site or future sites for which the diesel generator unit is being qualified.”

In this connection, kindly clarify (1) whether the “radiator” referred above is a jacket water heat exchanger? and (2) whether lube oil cooler can also be substituted?

Interpretation Response

The title of Clause 5 is “Factory production testing.” Subclause 5.1.3 states “Although testing is preferred, analyses may supplement test or be substituted for test, where testing is not practical.” The intention of the standard is to use actual site equipment whenever practical; however, relief is provided when use is not practical.

Subclause 5.1.4, the subject of this interpretation request, states “when tests are performed at the manufacturer’s or assemblers’ facilities, and not at the site, the exhaust muffler, intake air filter-silencer, and radiator (if applicable) normally used for shop tests may be substituted in place of the equipment to be provided for a specific site, since it is not practical to utilize the equipment at the site or future sites for which the diesel generator unit is being qualified.”

Subclause 5.1.4 does not prohibit substitution of other components including a jacket water heat exchanger or a lube oil cooler. The results of the test need to be corrected to reflect the performance of the actual lube oil cooler accounting for the variations in physical characteristics and ambient environment differences.

Subclause 5.1.3 permits analyses when testing is not practical. Testing required by Clause 7, "Site Testing" will demonstrate the performance of the actual lube oil cooler under site conditions.