GENERAL INFORMATION

14. DISTRIBUTED GENERATION INTERCONNECTION REQUIREMENTS (cont'd)

utility grade relays and other devices type tested as complete systems to avoid the utility review required of a non-type tested system.

All interface equipment must include a verification test procedure (unless otherwise noted in this document) as part of the documentation. Except for the case of small single-phase inverters as discussed later, the verification test must establish that the protection settings meet the SIR requirements. The verification testing may be site-specific and is conducted periodically to assure continued acceptable performance.

The checklist (Rule 14.D) shall be submitted to the contact listed on the Department web site (http://www.dps.state.ny.us/distgen.htm). Staff will perform a preliminary assessment of the information within 10 days to verify whether it is complete per the requirements and contact the manufacturer to request supplemental information if needed. After a complete documentation package has been provided, Staff shall review the checklist to verify that all the appropriate reviews and tests have been performed. Within 30 days from the submission of the complete package, Staff will make a final determination whether the equipment is approved for interconnection per the SIR. A list of this equipment shall be maintained for posting on the Department's web site as referenced above. The list will indicate specific model numbers and firmware versions approved. The equipment in the field must have a nameplate that clearly shows the model number and firmware version.

At the time of production, all interface equipment, including inverters and discrete relays, must meet or exceed the requirements of ANSI/ IEEE C62.41, Recommended Practices on Surge Voltages in Low Voltage AC Power Circuits, or ANSI/IEEE C37.90.1, IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems. If ANSI/IEEE C62.41 is used, devices shall be tested to a minimum category B3 level as defined in ANSI/IEEE C62.41 and the acceptance criteria shall be the same as that required by ANSI/IEEE C37.90.1. If, during the performance of any of the testing protocols prescribed above, the equipment ceases to export power and in the judgement of the independent testing laboratory fails in a safe manner, this will be considered an acceptable result for the purposes of these requirements.

Isolation transformers specified as required or listed as optional must be connected for the testing process. Each optional isolation transformer connection constitutes a separate type test. Generic isolation transformers may be substituted after type testing. Three-phase isolation transformers and voltage-matching transformers connected wye-grounded/delta on the generator side shall not be permitted.

1. Type Testing

The tests prescribed below to meet the requirements of the SIR apply only to devices and packages associated with protection of the interface between the generating system and the utility. Interface protection is usually limited to voltage function, frequency function, synchronizing function, reverse current or power function, and anti-islanding schemes. Testing of relays or devices associated specifically with protection or control of generating or other customer equipment is recommended, but not required unless they impact the interface protection.

The independent testing laboratory shall conduct the verification test prescribed by the manufacturer to determine if the verification test procedure adequately demonstrates compliance with these SIR requirements. All single-phase and three phase test voltages shall be applied phase to ground. Test voltages are specified phase to ground for a 120-volt nominal system. Other system voltages require adjusting the test voltages by the appropriate percentages. Over- and under-voltage protection should be wired phase to ground. Phase-to-phase voltage sensing results in less sensitive under-voltage detection and more sensitive over-voltage detection.

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