

216  
INCIDENTS  
ON-LINE PD TEST  
INDICATED  
SUSPECTED  
PROBLEMS

<b>Contamination</b>	<b>10</b>
<b>Vibration</b>	<b>54</b>
<b>Design/Manufacturing</b>	<b>127</b>
<b>Operation/Maintenance</b>	<b>12</b>
<b>Non-Generator</b>	<b>13</b>
<b>TOTAL</b>	<b>216</b>

*Table A. Failure Root Cause*

**Details:**

“...users of PD monitoring have been left with uncertainty as to just how valuable PD measurement might be in assessing the condition of the stator winding of a specific generator or motor. In an attempt to address this concern, the ‘success rate’ of one vendor’s database has been analyzed. The PD technology this vendor uses has been installed on a large number of generators and motors and data have been received from about 3600 of these machines.[6] In 216 cases, investigation of high PD readings has been conducted and the equipment owner has provided the vendor with the results of the investigations...PD monitoring systems appear to be finding conditions of concern on about 6% of generators where the equipment is installed. Probably no other generator monitoring system exceeds this rate of problem detect. Because of the high capability of PD monitoring, as illustrated in this paper, continued rapid growth in the installation of PD monitoring instrumentation should be encouraged and expected... PD monitoring has identified many pending service problems, prevented a significant number of generator service failures, and has resulted in a major cost saving to the power generation industry...”

*Excerpt from paper “Partial Discharge - A Valuable Stator Winding Evaluation Tool”, by C. Maughan in The 2006 IEEE International Symposium on Electrical Insulation*



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