



Specialist Investigation Services for Power Transformers with Partial Discharge & Discharge Conditions

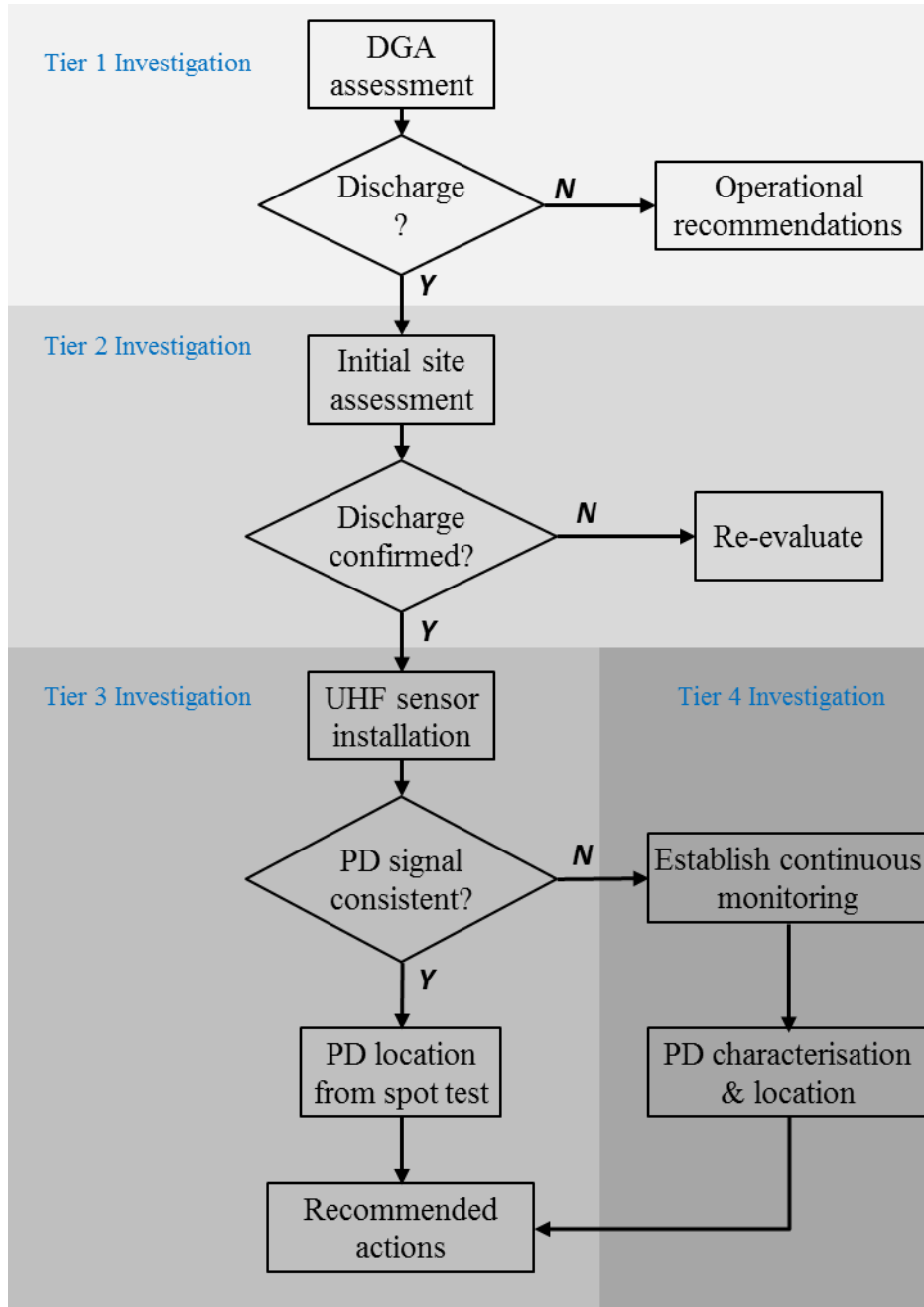
HFDE and Polaris Diagnostics have formed an alliance to offer a truly unique service, through a combination of their complementary technical skills and many years of experience with transformer diagnostics. In dealing with power transformers that exhibit characteristics of active partial discharge or discharge conditions, we can offer a comprehensive service that includes a rigorous initial independent evaluation of the transformer, based on a 4 tier approach. This begins with a thorough review of the oil diagnostics and the operational history, followed by a series of on-site scans and surveillance, culminating where appropriate in the application of the latest UHF partial discharge (PD) location techniques. An initial analysis and executive summary of recommendations can be supplied on an individual transformer basis, together with a costed proposal for testing or monitoring services that we regard as relevant to the transformer.

Ref.	Service Description	Polaris	HFDE
1.	Independent oil sampling and evaluation of DGA, oil diagnostics & trending	✓	
2.	Review of operational data and transformer design with reference to an extensive, proprietary forensic database	✓	
3.	Site survey to determine whether PD signals are evident in the transformer and determine whether UHF detection technology is relevant	✓	✓
4.	Guidance on installation options and locations for UHF sensors	✓	✓
5.	Design / manufacture / supply of robust UHF PD sensors and associated installation hardware	✓	✓
6.	Installation of UHF sensors & cables	✓	
7.	On-site PD location using UHF techniques (spot testing)		✓
8.	Configure PD location system for on-line operation to capture and locate intermittent PD activity (continuous monitoring)		✓
9.	Review design drawings, assess possible PD location and defect type to the extent possible based on all available diagnostic data	✓	✓

To discuss any of these services without obligation, please contact Ian Hunter or Martin Judd:

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Investigation Process for Power Transformers with Suspected Partial Discharge or Discharge Conditions