



Success story

Nexus Controls solves customer legacy LCI startup issue

Industry:

Power generation

Application:

Heavy duty gas turbine

Solution:

Nexus Controls Remote Diagnostic Services

Author:

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Introduction

The Nexus Controls Remote Diagnostic Services (RDS) team was able to solve a difficult-to-diagnose legacy LCI startup issue for a 7FA gas turbine within 4 hours—saving this customer an estimated \$30,000 to \$500,000 in potential downtime and repair costs.

Customer's challenge

Customer attempted to start their 7FA unit several times but it would not get up to purge speed. Despite having all the startup permissives met, it would trip within seconds of attempting to start. The only alarm was a generic Static Starter fault indication. The customer was unsure how to troubleshoot and decided to reach out to the Nexus Controls RDS team.



Nexus Controls solution and added value

Nexus Controls RDS team utilized the remote services gateway (RSG) workstation at customer's site to setup a trend to record some data while the customer attempted another start.

During the start the RDS team noticed that a particular fault signal picked up and locked in, something that is not always easy to find even in newer systems, let alone older systems like this one.

The team knew that this fault only activates when the system does not see a close feedback within a certain period of time of issuing a close command to the LCI source breaker. From that point they worked with the site and went through the software and drawings to trace the signal path back to either the wiring or aux contacts associated with the 52SS breaker. Upon inspection, an issue was found with one of the aux contacts and once fixed, the unit started up normally.

Main customer benefits:

- Difficult-to-diagnose issue addressed within 4 hours
- Saved \$30,000 to \$500,000 in potential downtime and repair costs

Closing

The Nexus Controls RDS team was able to diagnose and recommend a successful resolution to this customer's legacy system within 4 hours. Such systems can be very difficult to troubleshoot. The documentation is not always clear or easy to follow and may not even exist. Additionally, alarms on older systems can be very generic as was the case here. Without this support, it likely would have taken several days or more to send a field engineer to site to troubleshoot the issue in person, resulting in additional downtime and loss of availability.

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