Check the current transformers in the AT1 cabinet
Does this solve the problem?
1] Yes
2] No
3] I don't know

- Explanation

That TAC computer uses three current transformers to read the current from each of the phases. If one of these CTs
Check the current reading while the turbine is in pause and consuming as little power as possible (no motors or heaters on). If there is a current imbalance at this point, confirm that it is not being caused by the grid or transformer and test the AT1:T01.

If the T01 is shorted or open, it should be replaced.

Relevant spare parts	
Description	**Item No.**
TRAFO CURRENT 2000/1A 25VA	60007164

Check the AT1:R01 shunt resistor
Does this solve the problem?
1] Yes
2] No
3] I don't know

- Explanation

The current transformers have a shunt resistor to lower the current sent to the TAC.
With the current transformer disconnected, measure the resistance from AT1:R01:01 to AT1:R01:10. If it is not 2.5 ohms then the resistor may be bad.

Relevant spare parts	
Description	**Item No.**
RESISTOR SHUNT 3x2.5 OHM	51700501

987 - Cut-in avg. current L1 - V82

Check the gen speed readings, replace sensor if bad
Does this solve the problem?
1] Yes
2] No
3] I don't know

- Explanation

Check the generator speed in the alarm snapshot and compare it to the rotor speed. If the generator speed sensor is defective, replace it. If the sensor works but is misaligned, realign it.

Relevant spare parts	
Description	**Item No.**
PROXI S 1A18DLF05PO Ø18	60009263

Perform a generator test and report findings
Does this solve the problem?
1] Yes
2] No
3] I don't know

- Explanation

This alarm may indicate a generator is failing. Check the turbine log for other generator related alarms.

Perform a motor test and an insulation test on the generator. Use work instruction 959335 to insure the procedure is performed correctly.

Relevant documentation	
Description	**DMS No.**
Electrical measurements on generator	959335

987 - Cut-in avg. current L1 - V82

Check the circuit for shorts and opens
Does this solve the problem?
1] Yes
2] No
3] I don't know

- Explanation

The signal from the current transformers must pass through six connections before it reaches the TAC computer. If any of these connections are loose or corroded, the signal could be altered and the current measurement would be unreliable.

Check the circuit with a multimeter and thoroughly inspect the Amphenol connections.

Relevant spare parts	
Description	**Item No.**
Amphenol Plug Service Kit	60025069

987 - Cut-in avg. current L1 - V82

Inspect thyristor circuit, repair any damage

Does this solve the problem?

1] Yes
2] No
3] I don't know

- Explanation

If the alarm is occurring during start up, when the thyristors are active, it could indicate a problem with one of the thyristors or the TAC 40.

Relevant spare parts	
Description	**Item No.**
THYRISTOR MODULE	60001041
TRIGGER BOARD TAC 40 690V	51700901

987 - Cut-in avg. current L1 - V82

Replace the TAC

Does this solve the problem?

1] Yes
2] No
3] I don't know

- Explanation

If the TAC II is malfunctioning, it could raise this error by mistake.
Check for voltage on terminal AT2:U2:P1.1, you should have about 19 volts
If there is no voltage there, the TAC II should be replaced.

If you suspect the TAC II is bad for other reasons, always try to re-upload the software before you replace the TAC computer.

Relevant spare parts	
Description	**Item No.**
TAC II/F NEGM 1500c/71/82	51707301