Generator Field End Winding Insulation Migration

TIL 1308-2R1

March 5, 2002

Applicable to:

- Select 317, 9A3, 324, 7FH2, 9HZ, and 7A6 generators.

Purpose of TIL 1308-2R1

- To inform users that certain generator fields may experience a potential adhesive break down in the end winding turn-to-turn insulation, resulting in migration.
- This TIL 1308 has been revised from the August 2001 version to reflect new data. Certain new generators made from 1988 to 1995 or certain rewinds from 1988 to 1999 are now included in this TIL.

Notes

- Large steam turbine generators that were in the August 2001 applicablility list have been removed in this version.
- C-coil field winding units are also not included in this TIL, as none have experienced turn-to-turn insulation end winding migration, and they do not have the same turn adhesive identified in TIL 1308.

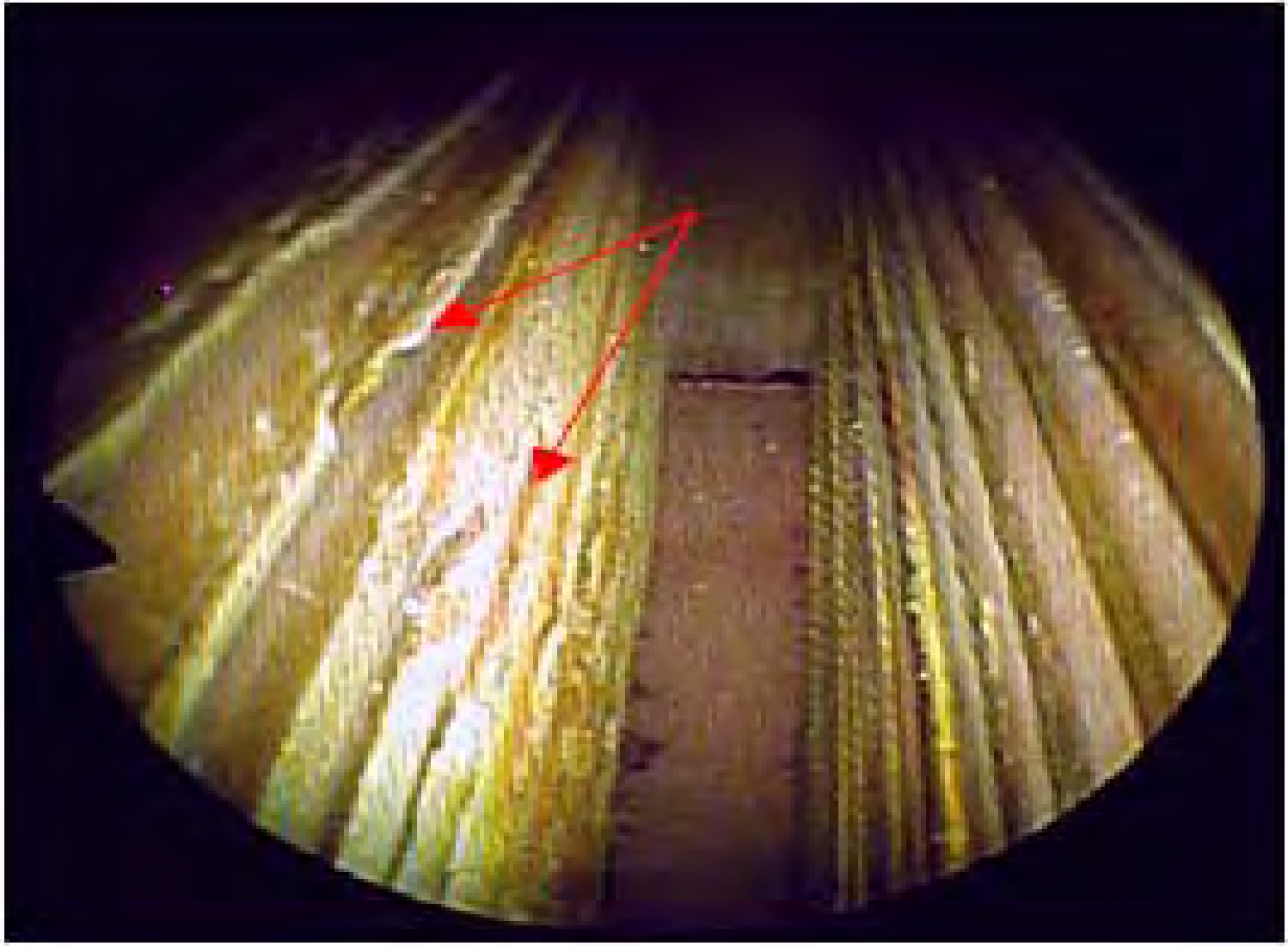
Recommendations

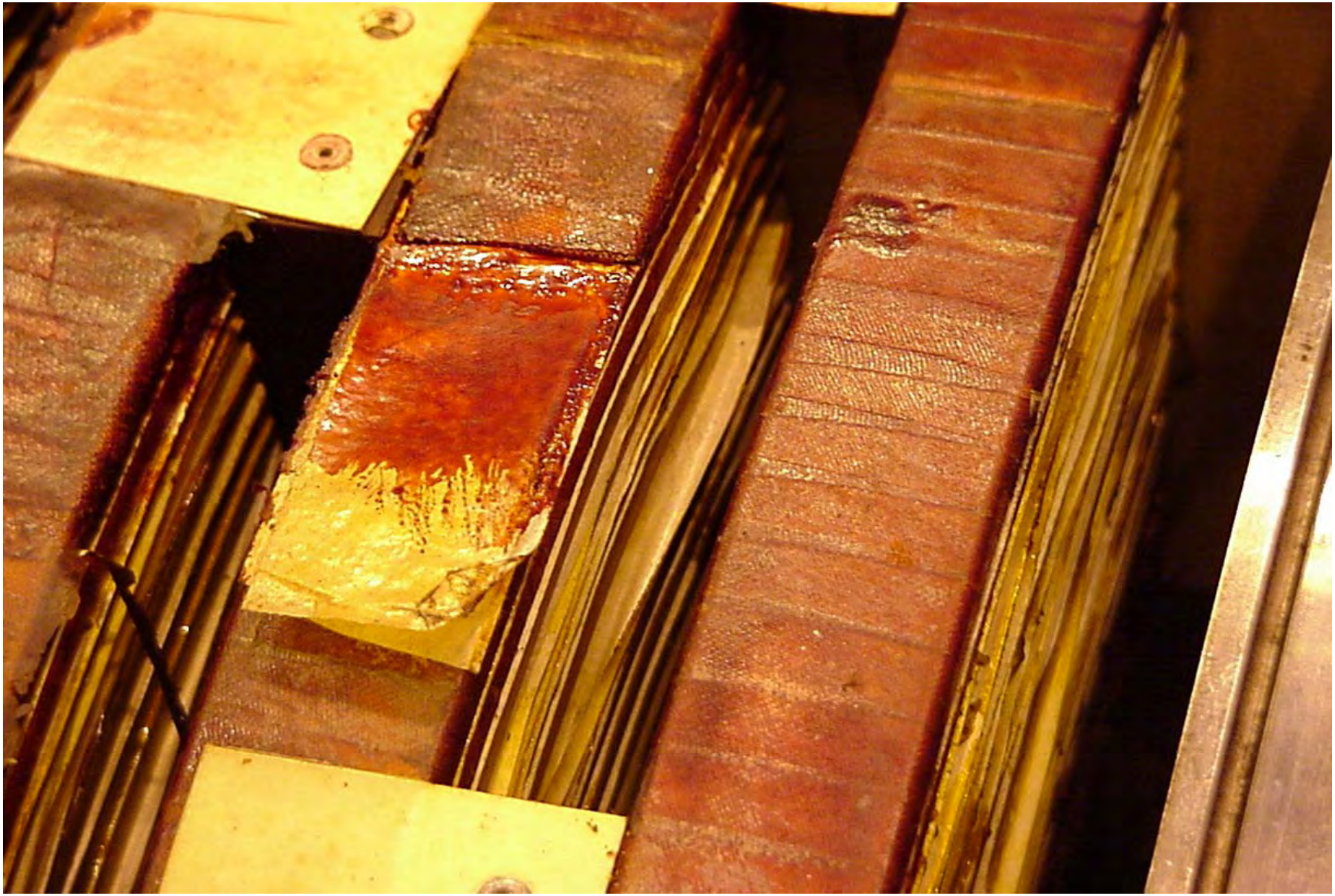
- GE recommends that during the next outage, perform a borescope or Magic Jr. inspection of the end winding.
- If this inspection reveals little or no insulation migration, then a monitoring plan should be followed (field voltage, field amps, generator temperature & vibration, and Megawatts)

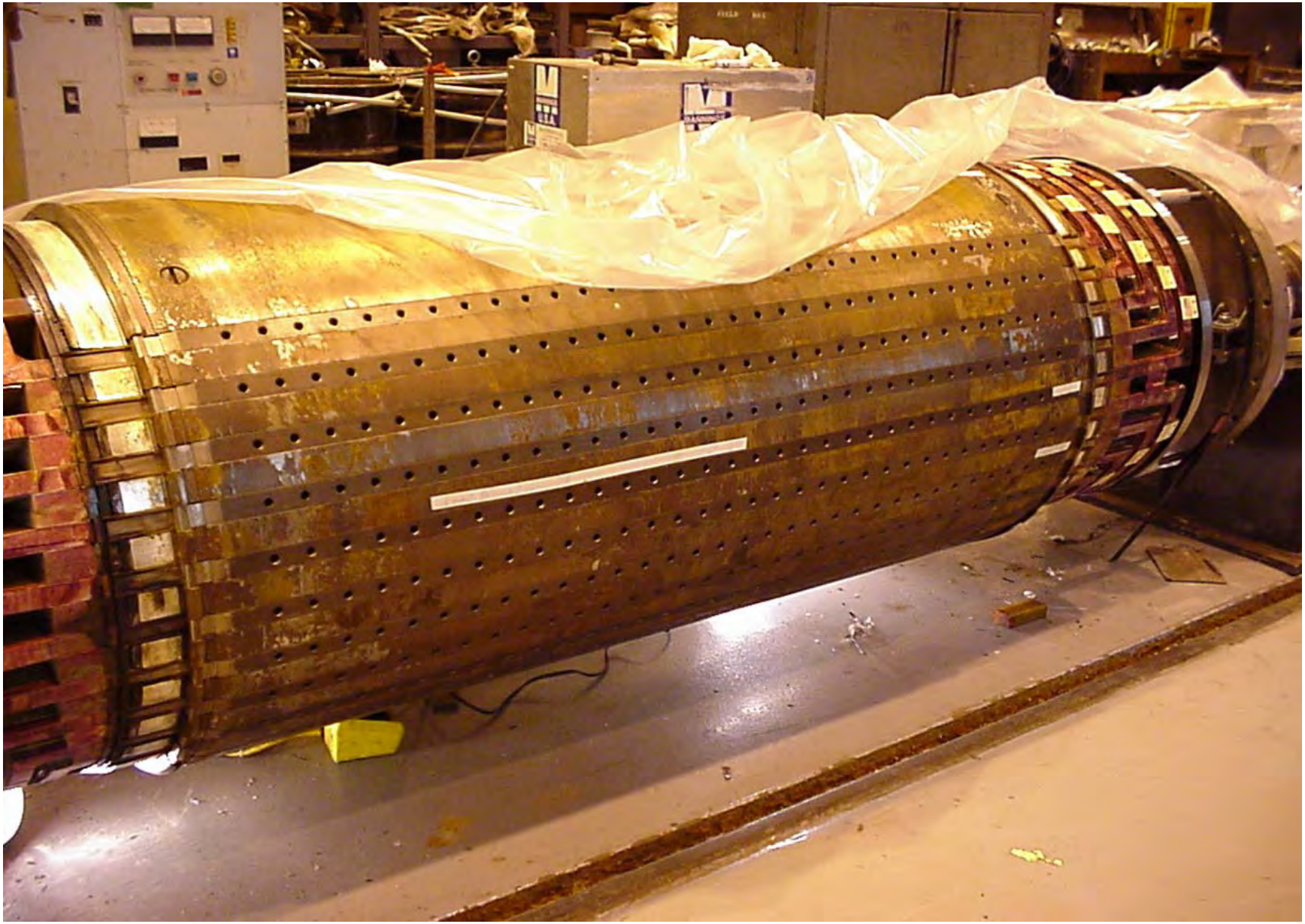
For higher risk units:

- GE recommends a proactive rewind.
- This is due to the occurrence rate of end winding migration for these particular serial numbers.
- High risk primarily refers to peaking units.

- Operating temperatures and loading dynamics associated with cyclic duty are key variables that drive this phenomenon.
- While every generator field will not experience migration, if present and left uncorrected, shorted turns may occur leading to reduce capability and a possible forced outage.





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