

Steam Turbine Oil -Sampling Interval and Testing Schedule

D 4378 – 08

Adopted and Modeled from ASTM D 4378-08 together with Focuslab's testing packages and individual tests .

Schedule 1 : New Oil

Samples from transport or drums or storage tank

Test : TurbineCheck 814 ⁽¹⁾
 RPVOT ⁽²⁾
 FTIR ⁽³⁾
 Rust Preventives
 Copper Corrosion

Schedule 2 : Installation of a New Oil Charge

Samples after 24 hours circulation

Test : TurbineCheck 814 ⁽¹⁾
 RPVOT ⁽²⁾
 FTIR ⁽³⁾

Schedule 3 : For the first 12 month operation -new turbine

Period-Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month
Test	1	2	3	4	5	6	7	8	9	10	11	12	13
Turbine Oil Analysis -Monitoring (TOA-M)													
TurbineCheck 813		813	813		813	813		813	813		813	813	
TurbineCheck 814	814			814			814			814			814
Turbine Oil Analysis -Quality and Performance (TOA-QP)													
RPVOT 660	660			660			660			660			660
FTIR 603.1	603.1			603.1			603.1			603.1			603.1
Rust Preventive 666	666						666						666
Copper Corrosion 665	665						665						665
Water Separability 662	662						662						662
Foaming 661	661												661
Air Release 663	663												663

Schedule 4 : For the normal operation

Period-Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month
Test	1	2	3	4	5	6	7	8	9	10	11	12	13
Turbine Oil Analysis -Monitoring (TOA-M)													
TurbineCheck 813		813	813	813		813	813	813		813	813	813	
TurbineCheck 814	814				814				814				814
Turbine Oil Analysis -Quality and Performance (TOA-QP)													
RPVOT 660	660						660						660
FTIR 603.1	603.1						603.1						603.1
Rust Preventive 666	666						666						666
Copper Corrosion 665	665						665						665
Water Separability 662	662						662						662
Foaming 661	661												661
Air Release 663	663												663

Note

The Schedule 3 and schedule 4 should be used as a guide. Increase frequency is required for a severe turbine or for oils approaching the end of their life.

The sample interval frequency is based on continuous operation or total accumulated service time.

If contamination is suspected ,some teste in TOA-QP test, may be useful to determine degree and effect of contaminants present.

The Month 13 of schedule 3 is the same month for the Month 1 of schedule 4

(1) TurbineCheck 814 is included RULER or Volatmmetry , (2) RPVOT or previously known as RBOT ,

(3) FTIR = Fourier Transform InfraRed

ASTM D 4378 -08 Standard Practice for In-Service Monitoring of Mineral Turbine Oils for Steam and Gas Turbines