

## 12. MAINTENANCE

The user must routinely check the X-ray equipment for apparent defects or damage. Report any apparent defects or irregular operation of any equipment to service personnel immediately, and discontinue use of the suspected faulty equipment until repairs are made. Continuing operation with faulty equipment may present various safety hazards, including risk of increased radiation.

**NOTE**

Due to varying operating conditions, the procedures listed below may have to be performed at greater or lesser intervals.

Service provider may adjust intervals according to system's performance.

**WARNING**

Turn off all electrical power to Topaz at its disconnect switch before servicing unit. Also, make sure that disconnect switch is locked out and tagged "Equipment Being Serviced" before servicing unit.

**WARNING**

This equipment is NOT classified as anesthetic-proof and may ignite flammable anesthetics. Flammable agents used for skin cleaning or disinfecting may also produce an explosion hazard.

**CAUTION**

The insulation oil level of the HT tank does not require periodic checks under normal conditions. However, if there is evidence of possible oil loss, such as oil leakage from the generator, contact DRGEM Corporation or service provider for possible equipment damage.

## 12.1 MAINTENANCE TASKS

- Operator

When to Do It	What to Do	Who to Do It	Related Section
Every day or as Required	Daily X-Ray Tube Warm-Up Procedure	Operator	<u>12.1.1</u>
	Test of Emergency Stop Switch	Operator	<u>12.1.2</u>
	Checking the visible damaged and installed of DAP	Operator	<u>12.1.10</u>
Once a month or as Required	Exposed Tracks	Operator	<u>12.1.3</u>
Every three months after installation or as Required	Apparatus operation	Operator	<u>Operation Manual</u> <u>4.5</u>
Every 6 months or as Required	Clean External Surfaces	Operator	<u>12.1.3</u>
	Clean Grid Surface	Operator	<u>12.1.6</u>
	Tube Head Membrane And Miscellaneous Generator Checks	Operator	<u>12.1.4</u>
Every 1 years or as Required	Checking the visible damaged components	Operator	=
whenever a related certifiable X-ray component is replaced, when not used for several days	Tube Seasoning	Operator	<u>12.1.9</u>
As required or when the remote control does not work	Remote control battery replacement cycle	Operator	<u>5.1.8</u>

- Service Engineer

When to Do It	What to Do	Who to Do It	Related Section
Every Month after installation or as Required	Check Fasteners	Service Engineer	<u>12.1.7</u>
Every 6 Months after installation and whenever a related certifiable X-ray component is replaced:	kV Calibration mA Calibration	Service Engineer	<u>5.2</u> <u>5.3</u>
Every 10 years after installation or as Required	Chain Tension Adjustment	Service Engineer	<u>12.1.11</u>
Every 5 years after installation or as Required	Column Spring Tension Adjustment Check the noise from spring	Service Engineer	<u>12.1.12</u>
Every 10 years after installation or as Required	Adjust The Deflection Of Tube Head	Service Engineer	<u>12.1.13</u>
Every three months after installation	Image Calibration	Service Engineer	<u>4</u>
Every 6 Months after installation or as Required	Handlebar Calibration	Service Engineer	<u>12.1.5</u>
Every 10 years after installation or as Required	Insulation oil check	Service Engineer	<u>12.1.8</u>
Every 2 years after installation or as Required	Check the condition of wires Cleaning wires Re-applying the Grease	Service Engineer	<u>12.1.15</u>