

Maintenance Planning: Periodic Inspection and Maintenance Recommendations

Task Description	Weekly	Monthly	Quarterly	Bi-Annually	Annually	As required
Record vacuum level and cryo temperature in the operation log	X					
Test safety interlock switches for proper operation		X				
Test all the light tower elements from the HMI		X				
Test emergency stop button for proper operation		X				
Visually check helium pressure on cryo pump compressor		X				
Visually check roughing pump oil level and color. Replace if needed.		X				
Perform radiation survey (see company procedure)			X			
Visually inspect the high voltage cable for condition				X		
Remove and clean the high voltage cable ends				X		
Visually check SF ₆ gas pressure in the high voltage enclosure				X		
Replace oxygen sensor cell				X		
Schedule a preventative maintenance visit					X	
Replace adsorber in cryo compressor					X	
Change oil and filters in roughing pump					X	
Measure ebeam output and uniformity using dosimetry chips (see company procedure)					X	
Test oil sample from the high voltage power supply					X	
Record faults and maintenance procedures						X

Perform foil replacement (typically every 4-6 months or as required)						X
Perform filament replacement (typically 8,000 filament hours or as required)						X
Perform ion gauge degas						X
Inspect idler roll bearings for roughness						X
Clean filter in bottom of high voltage power supply control cabinet						X
Clean heat sink and fan on high voltage power supply						X