Planned Maintenance Schedule A

Schedule A Overview

Complete Schedule A one third of every year. This schedule includes a general cleaning and inspection of the Gantry, Console and Table. The tools, test equipment, and consumables listed here are needed to complete Schedule A.

Every site must maintain a site log. It can be a GE Site Log, or a notebook or binder that you create. A System Service History also is available through iCenter or ISD tools.

When reviewing the error logs, or during the course of the PM, if you find anything that you determine is critical to quality or to the operation of the system, then you should record it on the PM Report Form, and schedule additional time for specific corrective action.

You will need to open the PM Report e-form that corresponds to this PM Schedule. (The e-form is located on **SIMS Content Viewer**) Fill in the Report form as you complete the PM Schedule. Print one copy for your Site Log. You may need to print a second copy for the customer, if requested.

Personnel and Time Requirements

Required Persons	Time Required
1	4.8 hours

Tools and Test Equipment

Item	Qty	Part #
Standard FE Tool Kit	1	For a list of items, see Standard FE Service Tool Kit Listing.
Metric Allen Wrench Set	1	
Safety Glasses	1	
Vacuum Cleaner w/HEPA filter Kit (120V & 50/60Hz 5A)	1	46-297933P1
CLEAN Vacuum brush (used only for slip rings)		
Replacement HEPA filter, if required	1	46-297948P1
LOTO Kit	1	
Gloves, PPE	1 pair	
Grease Gun (for Gantry Main Bearing)	1	46-297931P1
Grease Gun (for Gantry Main Bearing)	1	9687000
Grease Gun (for GT Table Rails)	1	U0018BF
Grease Gun (for NG Elite Table)	1	5103237
Torque Wrench Kit	1	
Temperature/Humidity Tool	1	CCM-OTH or equivalent
20 cm QA Phantom	1	
6 ft. Step Ladder	1	
Installation Manuals for Options installed on site	As Required	
Tape Measure - Metric	1	
Spring Scale	1	U0012BF

Consumables

Item	Qty	Part #
Tywraps	As Required	
Neoprene or nitrate gloves	1 pair	LG 46-194427P347 (Qty 100) XL 46-194427P348 (Qty 100)
Kimwipes (or waste cloths)	As Required	
Shell Alvania Grease #2 (for Table Leg and Rail)	1	60cc Tube : 2188551
White sheets of paper	As Required	
Water	As Required	
Isopropyl Alcohol	As Required	
Soft cotton cloth	1	
Polyrex Grease (for Gantry Main Bearing)	1	1 oz. Cartridge 2347076
Polyrex Grease (for Gantry Main Bearing)	1	390g, cartridge 9687001
Foam Bellow FRU Collector	1	5841554-20 (46-309141P1)

Preliminary Requirements

You may do any of the following remotely, if possible.

1. Before beginning this PM Schedule, verify that the last PM Schedule completed was Schedule W or Schedule C.
2. Determine if any PM tasks were completed earlier as part of a service action.

Initial Procedures

Check Temperature and Humidity

Check the Temperature and Humidity in the scan room; record these on the PM Report Form. (Use the temperature and humidity tool [CCM-OTH], or an equivalent tool.)

Table 1. System Temperature and Humidity Limits

Description	Measurement
Max. allowable ambient scan room temp.	26° C (79° F)
Recommended ambient scan room temp.	22° C (72° F)
Min. allowable ambient scan room temp.	18° C (64° F)
Max. allowable non-condensing relative humidity	60%
Min. allowable non-condensing relative humiditiy	30%

General Gantry Inspection

Complete the Display Lights and E-stop Buttons test. (For procedures, see General Gantry Inspection)

NOTE

Ignore inspection of Listen for Unusual Noises.

RCK-AVIMOS Inspection

As a monitoring system, the inspection is necessary to ensure accuracy and clarity of the AVIMOS. (For procedure, see RCK Planned Maintenance)

NanoCloud AWS Certificate Expiration Date Inspection/Renew

For NanoCloud AWS installed on CT, check the Certificate Expiration Date of NanoCloud AWS, renew the certificate if it is possible to expire before the estimated next PM.

Refer to the documents below to renew the Digital Certificate.

AW Server Version	Document Number
AWS3.2 Ext3.4	5719443-1EN 4.5 Job Card SV004 - Renewal of Digital Certificate
AWS3.2 Ext4.0	
AWS3.2 Ext4.6 or later	5771771-8EN 2.4.1.1.1 Renewing AW Server self-signed certificate
AWS3.2 Ext6.2	**5950207-8EN** SW042 - Manage the Certificates NOTE Enter SW042 in the search box to find "**SW042 - Manage the Certificates**"

Phantom Inspection

Verify there is no crack or damage on QA phantom.

Power Off, Gantry Covers Off

General Tasks

1. Move the table to lowest position.
2. Stop the rotor of X-ray tube in case of Liquid Bearing Tube before HVDC off. Refer to Liquid Bearing Tube Rotor stop procedure for details.
3. Turn off the **AXIAL DRIVE ENABLE**, **HVDC ENABLE**, and **120VAC** switches.
4. Power down the system and apply LOTO.

   NOTE
   If your system has an Emergency OFF switch on the wall, use it rather than the A1 Off switch to verify that the Emergency Off switch is working properly.

5. If installed, confirm that the UPS power is disconnected when the Emergency Off device is pushed.
6. Remove gantry side, top, front and rear covers. (For procedures see, **Replacement → Gantry → Enclosure → Cover Procedures**.)
7. Inspect the gantry cover cables and confirm that all cable keepers are securely attached to the cover.

General Console Cleaning & Inspection

1. Inspect Standalone Console (Host Computer). If necessary clean exterior surfaces.
2. Check that the fan in the Host Computer is operational, vacuum exterior air intakes and exhaust ports of the Host Computer.
3. Clean and vacuum the keyboard.
4. Visually inspect the following items for wear:
   a. Check for loose or worn cables. All console component cable connections should be tight to the touch.
   b. Check that the mouse operation is smooth.

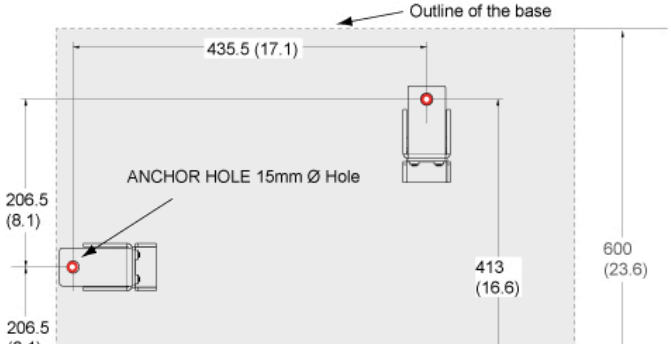
Seismic Anchor Inspection

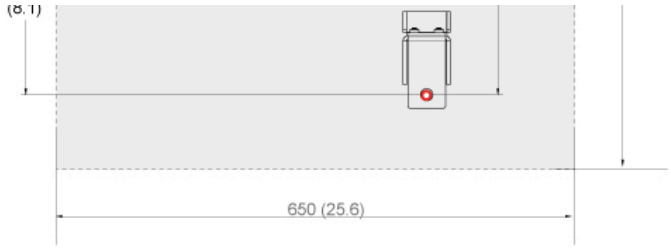
NOTICE

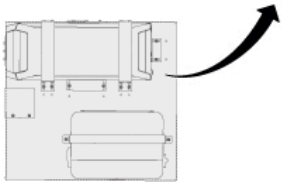
Not every system has or is required to use seismic anchors. If required, inspect anchor torque.

1. If equipped, inspect to see if you can move the anchor washer by hand.

Figure 1. Standalone Console Anchor locations







2. If moveable, follow the procedures in the state-issued seismic installation directions for your site, to inspect the anchors and re-torque them, if necessary.

NOTE

Due to variances in local ordinances and mounting hardware, torque values may vary.

Slip Ring & Brush Block Inspection and Maintenance

Inspect the Brush Block, Brushes and remove Slip Ring Brush Debris. (For procedures, see Inspect Brush Block & Brushes and Remove Slip Ring Brush Debris.)

Gantry Filter Cleaning

Complete a Gantry Filter Cleaning and Rotational Checks, including the following (For procedures, see Gantry Filter Cleaning and Rotational Checks).

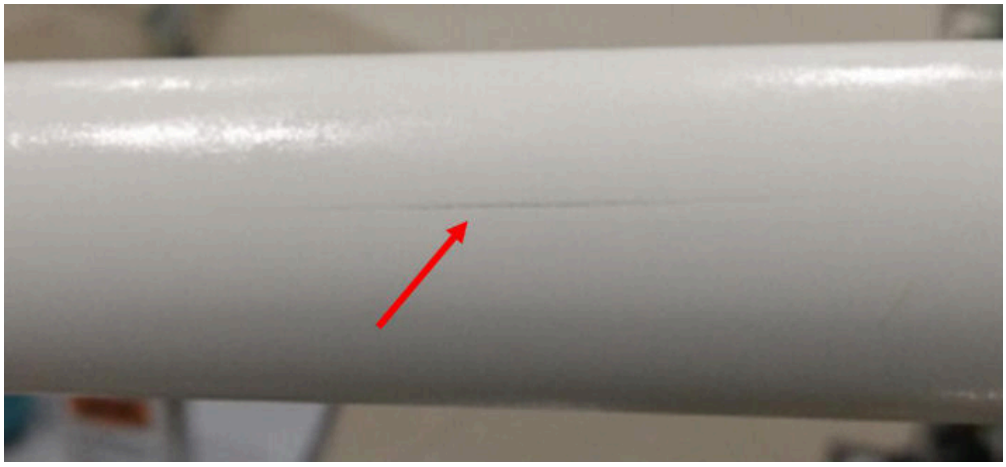
- Clean DAS Plenum Filter and Duct Cover
- Clean Gantry Heater Blower Filter
- Clean Gantry Top Cover Fans
- Complete Rotating Path Components and Cables Inspection

HV Cable Candle Stick Inspection

Perform HV cable candle stick inspection in every **PM A**, 1 time a year (it can be scheduled to PM B or C only if it did not be performed in PM A, make sure 1 time a year). Remove candle sticks which are connected to Tube, HV Tank and HEMIT tank, and perform visual inspection. If any cracks or damage is found, replace the HV cable.

NOTE

There is the possibility of a small crack, so it is necessary to inspect carefully.



It is also necessary to inspect the amount of receptacle oil. If the candle stick is dry while there is no leakage of oil through retaining ring, HV cable replacement is necessary. Refer to **Service Methods → Replacement → Gantry → High Voltage → HV Cable Replacement (5837775-1EN)**.

CAUTION

High voltage cable precautions, when tightening the lock ring, aligning the HV spanner wrench with the hole in the lock ring and tightening it may result in an unexpected injury if you work with oil adhering to it when loosening it. If there is oil on it, wipe it clean and turn it slowly after confirming that the HV spanner wrench does not slip off from the lock ring. Be careful not to injure your hands with leather gloves, etc. If the pin part of the HV spanner wrench seems loose, stop using it and purchase a new one.

Tube Bellows Replacement

While performing HV cable candle stick inspection in PM A (or B/C), it is required to replace the Tube Bellows (46-309141P1 is contained in FRU kit 5841554-20, or 5841554, or HV cable FRU kit) before installing or re-installing a HV cable into the tube receptacle prior to turning the product over to the customer. Refer to **Tube Bellow Replacement Section** in Service Methods → Replacement → Gantry → High Voltage → HV Cable Replacement (5837775-1EN).

Generally, it is not required to replace the Tank rubber gaskets unless the Tank rubber gasket is missing or damaged (if required, order 5841554 which contains rubber gaskets for Tanks, foam bellows for Tubes, and quad rings for both Tanks and Tubes).

Power On, Gantry Covers Off

General Tasks

1. Remove LOTO and power up the system.
2. Start up the UPS, if present. (For procedures, see *Two Phase Partial UPS Installation Manual, Direction 5821322-1EN*)
3. Turn the 120VAC power ON at the gantry service switch panel. (For procedures, see Equipment Service - Gantry)
4. Check that all three (3) of the Plenum Fans are operating properly. Use a piece of paper to make sure the fans are pulling air INTO the plenum.

   NOTE

   A fan that is not running can still have the fan blades moving as air is pushed back out of the plenum though that fan port.

5. Check/Grease the gantry main bearing.

   The gantry main bearing must be lubricated with grease during PMA, once a year, using approximately 30g each time. (For procedure, see Grease Main Bearing)

   Record gantry main bearing PM date in PM label. Before the on-site greasing operation, please confirm whether the PM Record Label is affixed inside the gantry right-side cover. If not, order the Grease PM Record Label (5987113 or 5987113-20) in advance.

Tube Heat Exchanger & Pump

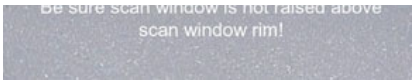
Complete a Tube Heat Exchanger inspection. (For procedures, see Clean Tube Heat Exchanger and Clean JEDI Inverter Fans)

Power On, Gantry Covers On

General Tasks

1. Turn the 120VAC, HVDC and Axial power OFF at the gantry service switch panel. (For procedures, see Equipment Service - Gantry)
2. Reinstall front, rear, top and side covers to the gantry. (For procedures see **Replacement → Gantry → Enclosure → Cover Procedures** l;o)
3. Install and inspect the Scan Window. (For installation procedures, see Gantry Scan Window Removal and Re-Install.)
   a. Inspect the scan window for physical damage.
   b. Check that the scan window is not raised higher than the front or rear cover at any location on the circle, and that the window is not wrinkled (see Figure 2).

Figure 2. Scan Window



c. Replace the scan window if it is damaged. (If you need to replace the scan window, follow the procedures in Gantry Scan Window Removal and Re-Install to remove the old window and install a new one.)

4. Turn the 120VAC power ON at the gantry service switch panel. (For procedures, see Equipment Service - Gantry)
5. Rotate the gantry by hand and inspect rotational clearances.

General Table Cleaning & Inspection

1. Move the table to ISO elevation and the cradle to the maximum OUT position.
2. Turn the power OFF (120VAC, Axial Drive and HVDC) at the gantry service switch panel.
3. Complete the General Table Cleaning and Inspection.
   a. **(For GT Table)** PM inspection will be changed the period from 1time/1year to 1time/2years and the required persons from 2 FEs to 1FE. Please refer SN2974562 for details and combine procedure General Table PM to perform.

   b. **(For NG Elite Table)** It is recommended that the PM inspection frequency be 1time/2years, and the required personnel is 1FE. FE may also increase the frequency according to the system usage conditions, see procedure NG Elite Table PM

      NOTE

      NG Elite Table PM is performed 1time/2years. In "off-years" when PM is not required, enter "N/A" in the Table PM form.

4. Turn on the Axial Enable and HVDC switches at the gantry service switch panel. (For procedures, see Equipment Service - Gantry)
5. If the 120 VAC power is still off, turn it back ON at the gantry service switch panel.
6. Install the service switch panel cover.

Finalization

1. Complete the System Scanning Test. (For procedures, see System Scanning Test.) While completing the test, do the following verifications (Step 1 and Step 2) and record them on the PM Report Form:
   a. Verify that the following X-ray On indicators light up:
      - GSCB
      - Gantry Front
      - Gantry Rear (To avoid walking into the room during a scan, you may want to use a mirror to check this X-ray indicator.)
      - Room Warning Light

   b. Verify that the following scan control push-button are operational:
      - Start scan (and keypad lights).
      - Stop scan (and keypad lights).
      - Pause scan.
      - Advance to scan.
      - Stop table.
2. Update the site logs. (For procedures, see Update Site Logs.)
3. Complete all required PM paperwork.

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