STATEMENT OF WORK FORMAT
Vibration Table System Maintenance

PR: 4200506414

Background
The purpose of this document is to request general inspection and maintenance of a vibration control system (Vibrator Model V730/SPAK system | LDS DPA K Amplifier). The system is inspected and maintenance is performed to ensure the equipment is able to perform testing to its specifications. The system is used to simulate the launch environment electronics systems undergo during launch.

Scope
The vendor shall perform inspection and maintenance of the vibration table system and amplifier.

Requirements

The vendor shall inspect the performance of the system in terms of force, displacement, and frequency range.

The vendor shall inspect the armature, armature inserts, body (magnetic structure which houses the field coils and moving coil assembly), electronic armature position indicator, electronic armature over travel switch, pneumatic load support system, remote fan (for cooling the field, armature and when fitted, degauss coils), air glide system,

The vendor's experience shall include inspection and maintenance of high voltage systems and high voltage test equipment.

The vibration equipment contains lethal voltages. If necessary to remove any covers, the supply shall be disconnected from the equipment.

The vendor's experience shall include inspection and maintenance of systems sensitive to electro static discharge (ESD) events. LDS electronic equipment contains devices which are liable to damage due to electrostatic energy.

The vendor shall keep printed circuit board (PCB) handling to a minimum, avoid touching the edge connectors. (PCBs that contain electrostatic sensitive devices carry the hands-barred symbol.)

When handling the PCBs, personnel shall wear conductive wrist bands connected to an approved electrostatic sensitive protection (ESP) bonded discharge point. If there is no suitable discharge point, the vendor shall use an approved ESP connector.

The vendor shall not connect conductive wrist band to a metal cabinet.

All test equipment can component-carrying trolleys shall be connected to an approved ESP discharge point. If not practical, the vendor shall use a conductive floor mat and suitable bench mats connected to an approved ESP charge point (already located in the vibe lab).

The vendor shall perform the following:

1. Inspect all the cooling fans. If dirty, clean the blades with a dry soft cloth; do not use fluids of any kind.

2. Check that all power connections to the amplifier (field supply, armature supply and 3-phase supply) are secure. Check the earth connection is secure.

3. Switch on the 3-phase supply at mains isolator. Ensure that all cooling fans are operating. Listen for any noise which suggest a cooling fan is not operating smoothly.

4. Run up the amplifier. Press the emergency stop conrrol; check that the ampliflier shuts down.

5. Repeat step 5 and check the action of the RCP's emergency stop control.

6. Check the interior of the amplifier for accumulations of dust or dirt. Clean, as required, with a soft brush or dry lint-free cloth; do not use fluids of any kind.

7. Ensure cabinet panels are correctly fitted and locked.

8. Ensure that the dust filters are clean and free from accumulated dirt. Replace any filters that cannot be fully cleaned.

9. Ensure hydraulic oil supply (if applicable) is correctly topped-off.

10. Ensure armature is correctly secured to the vibrator.

11. Inspect safety interlocks for correct operation.

12. Inspect insulation between the armature frame and coil (if air cooled vibrator) using high voltage (500 V d.c.) insulation tester.

13. Inspect the air intake grills. Brush off, or wash with warm soapy water, any dust or fluff that has accumulated.

Deliverables or Delivery Schedule
The vendor shall provide a report of the inspections and maintenance performed on the system within 7 calendar days after work is completed.

Place of Performance
The work shall be performed at NASA Goddard Spaceflight Center in building 11.