

Temperature and Humidity Controlled Chamber

2027-LGD-0065

Draft Statement of Work

1. OVERVIEW / BACKGROUND. The Library of Congress (Library) requires contract support to acquire a temperature and humidity controlled chamber for use in its quality assurance program for the testing of papers, boards, etc. against multiple ISO standards in addition to ongoing research on materials degradation in relation to the Library's collections. Testing the physical and chemical properties of materials, and how they change during aging, is central to the Library's quality assurance testing program for materials used in the storage and housing of collections and ongoing research programs. Many of the specifications rely on published ISO testing standards such that specific capabilities of testing equipment are required as they are specified in the international standards (ISOs) that have been used to develop the Library's specifications.

2. SCOPE This contract will acquire a temperature and humidity controlled chamber for use in the Library's quality assurance program for the testing of papers, boards, etc. to multiple ISO standards in addition to ongoing research on materials degradation in relation to the Library's collections. The contract should include all parts and equipment to meet specified parameters, user training, shipping, and 1 year of warranty support.

3. REQUIREMENTS The contractor shall provide a temperature and humidity controlled oven that meets or exceeds the following requirements as well as noted accessories.

3.1 Temperature and humidity controlled chamber with the following specifications

3.1.1 Temperature range from -70 °C to 150 °C with +/- 0.5 °C fluctuation or better and uniformity across the chamber better than 2 °C

3.1.2 Humidity range from 10% to 95% relative humidity with fluctuation and uniformity across the chamber at +/- 5% RH or better utilizing a wet/dry bulb humidity sensor

3.1.3 Interior test chamber of 4 cubic feet or larger

3.1.4 Exterior dimensions of less than 31" x 34" x 47" (W x D x H)

3.1.5 Cooling and heating rates of 2 °C of higher across the temperature range

3.1.6 Touch screen controls and option for addition control and logging via separate computer system (computer not provided by this contract)

3.1.7 Capability to store greater than 25 experimental profiles with multiple stages (>25) within each profile (ramp, soak, etc.)

3.2 Accessories compatible with chamber in 3.1

DRAFT STATEMENT OF WORK

3.2.1 Two adjustable wire shelves with 10 lb or greater rating per shelf

3.2.2 Chamber connect control package for basic operation, monitoring, and logging

3.2.3 Mobile cart with integrated water tank for humidity control, including automatic shutoff and recirculation modes.

3.3 Remote start up assistance and basic operational training (online)

3.4 Freight shipping to the Library of Congress, Madison Building, to be coordinated with the COR. Note that additional shipping instructions required for gaining access to the loading dock will be supplied following contract award.

3.5 One year manufacturer warranty on all supplied items along with covered remote support (phone, email, etc.)

4. CONTRACT PERFORMANCE

4.1. SCHEDULE OF EVENTS/DELIVERABLES

Paragraph reference	Description of Event/Deliverable	Due date/Payment schedule
3.1, 3.2	Temperature and humidity controlled oven and accessories	Within 16 weeks after contract award/payment upon delivery
3.3	Remote startup assistance and training (online)	Within 2 weeks of delivery
3.5	One year warranty	For one year following delivery

5. ADDITIONAL INFORMATION

5.1. PLACE OF PERFORMANCE. The work to be performed under the contract will be performed at manufacturer's facilities with the completed materials being delivered via freight to the Library of Congress, Preservation Research and Testing Division, LM G-52, Washington, DC 20540-4560.