

Request for Proposal (RFP) W8472-225851/A - Large Environmental Chamber

Amendment 005 is issued to extend the closing date of the RFP and respond to the questions asked by industry.

DELETE

Solicitation Closes – L'invitation prend fin
At – à : 14:00 EST
On - le : February 22, 2023

INSERT

Solicitation Closes – L'invitation prend fin
At – à : 14:00 EST
On - le : March 8, 2023

Q1:

It will be impossible to size the compressors and machine packs without knowing:

a) The dead load i.e. the test item description including size, weight, configuration (example 60% stainless steel, 40% aluminium), number of items being tested, any special fixtures are involved, etc.

b) In regards to the live load of 5KW, we also need to know when this live load will be on (on all the time, pull down, heat up, steady state, humidity, etc. with all the details). Again, this is critical to know so the chamber design takes all this into consideration.

A1:

a) It is impossible to know what types of future devices we will be required to test. That said, the specifications listed in the TSOR are based on the MIL-STD as well as our current chamber. The current chamber generally meets our current requirements and can be used as a reference for the new design. The main requirement (for this point) is that the floor capacity of 4,390 kg/m² is maintained.

b) It should be assumed that the 5KW load is live throughout the duration of the test.

Q2:

10.4.5.

The LEC humidity range must have a lower limit of at least 10%RH and an upper limit of at least 95%RH non condensing.

It would be good to know. min and max T/H points (4 points on chart) which would be the dew points.

A2:

Please refer to MIL-STD-810H (501.6, 502.6 and 507.6), the points can be found by going through the temperature profiles.

Q3:

10.4.3

The LEC must be able to control the temperature rate of change to avoid thermal shock (i.e. must not exceed 3C/min) when required.

This can mean as slow as possible and it does not detail the temp rate you are looking for, neither the test profiles.

a) If a bidder provides a chamber that only does 0.001C/min (or as SLOW as possible) heating and cooling, that means they would meet spec?

b) A bidder who gives you a design that takes weeks or months to achieve temperature set points would win the award?

A3:

a) This requirement is related to the temperature control of the chamber. The system must be able to ensure that, when required, the equipment being tested will not be subjected to a thermal shock. There are various test profiles listed in MIL-STD-810H (501.6, 502.6 and 507.6). It is imperative that the chamber meet all environmental tests listed in those sections. Note: The limit of 3°C/min is for the temperature of the chamber and not the equipment being tested.

b) See answer above.

Q4:

In Amendment 003, when you state that you currently have 4 X 25HP cascading system, can you please confirm if this means the following:

- Total of 4 compressors, 2x 25 HP cascade refrigeration systems.
- Two RACC units, 3 fans each.

A4:

- Total of 4 compressors (30HP), 2x30HP cascade refrigeration system
- Two RACC units, 3 fans each (confirmed)

Q5:

With your 5KW live heat load on, what is the lowest temperature the chamber needs to hold cold being that -51C (the lower limit of the chamber) is "empty chamber".

A5:

The criteria of -51°C is a setpoint for the testing of equipment including the 5KW load.

Q6:

How of the remote condenser interconnection (~215 feet) is vertical distance?

A6:

The vertical distance of the piping is approximately 26ft.

Q7:

10.3.5

The LEC must be equipped with a hydrocarbon and carbon monoxide monitors located inside the chamber.

- a) Why are these items needed because these monitors are rarely (if ever) used without any additional critical safety features that are not requested in your tender, such as fresh make-up air/ventilation and spark resistant interiors.
- b) It defeats the purpose to have these monitors yet not be able to be able to ventilate the chamber adequately (major health hazard inside the chamber and outside the chamber when you open the doors and let the fumes out) or have a spark resistant interior to protect the chamber from any ignition and explosion.

A7:

- a) The hydrocarbon and carbon monoxide sensors are used to validate whether or not personnel can safely access the chamber.
- b) According to the TSOR, section 9.3.4 states that the LEC must be intrinsically safe.

Q8:

- a) Who is responsible for rigging/unloading, uncrating/pallet removal and bringing deliverables from your loading dock to your final install site in the lab?
- b) Installation/Connections of copper refrigeration piping for remote machine packs and air-cooled condensers would be the responsibility of the bidder and the work would all be coordinated and executed with a sub-contractor.

A8:

- a) The rigging/lifting, as mentioned in amendment 003, the bidder (and/or subcontractors) are responsible for supplying the moving equipment requires.
- b) The bidder is free to use any necessary contractors to carry out the work as long as they meet the requirements outline in the RFP (e.g. security requirements).

Q9:

Can we use the existing piping?

A9:

Yes

Q10:

Will NETE take care of changing the piping?

A10:

No. If the existing piping cannot be reused then the contractor is responsible for changing it.