

## RFI's with Responses

Updated August 31, 2023	
Q.	Confirm 50% redundancy means that there shall be either two units of 100% capacity (effectively 100% redundancy but possibly less expensive than 3 smaller units) or 3 units of 50% capacity each. Alternatively, would boilers, chillers or RTU/AHU's at 75% capacity each be acceptable, or some other combination achieving at least 50% redundancy?
A.	<i>Yes, the phrase, "extra 50% capacity" was intended to mean two units at 100% capacity each. Three units at 50% capacity each is also acceptable. Whether 75% redundancy for any areas is acceptable would be a question for owner.</i>
Q.	For lab spaces or for different space/lab types, if pressure relationships and other design criteria are met when required and operation/testing is not 24/7/365, is it acceptable to combine the exhaust, makeup air, heating and cooling requirements into variable capacity central systems, assuming code limitations don't prohibit the combination? If not, which rooms or testing areas are absolutely required to be independent of others (All ISO Labs?).
A.	<i>Exhaust and makeup air can be combined, as long as full controllability of temperature, relative humidity, and pressurization to each space is maintained. Central air handling units can be used as long as full controllability of each space is maintained, and the spaces being served would not be compromised by cross-contamination between any of the other rooms on the unit. Final determination of which rooms pose cross-contamination risks to be verified with owner.</i>
Q.	Is backup power required for any other areas besides the freeze-thaw area? Only a hood in the Curing Compound room is indicated to require emergency power.
A.	<i>See page 1 of Basis of Design: Electrical &amp; Lighting. Section b and g. Also see 'Lab equipment matrices' for which areas require UPS and room data.</i>
Q.	Will the missing information associated with the empty cells in the Lab Equipment Matrix be provided?
A.	<i>The blank cells were items that were not clarified because the equipment was in use. Design team/GC selected would need to verify those items and coordinate with client.</i>
Q.	Please confirm, operations would not need the ability to control the pressure relationship between the lab and adjacent corridor, but that a display of the pressure relationship would be welcome.
A.	<i>Every room that has a required pressurization relationship should have a static pressure sensor which will tie to either exhaust or makeup/outside air and modulate the system accordingly to maintain the desired static pressure in the room. This pressurization value should be visible on a BAS and adjustable by operations personnel.</i>
Q.	Please confirm, Natural gas was an acceptable source for the back-up power generator for the freeze-thaw systems.
A.	<i>Natural gas is considered a reliable source in almost every situation. EC is to confirm with local AHJ that gas company is deemed reliable. Natural gas generator has the ability to start within 10 seconds (class 10) which is what is required for life safety generator. Basis of design: Electrical + Lighting section b indicates generator will power life safety loads.</i>
Q.	Please confirm, Empty cells in the Equipment Matrix are indications that the information has not yet been obtained.
A.	<i>The blank cells were items that were not clarified because the equipment was in use. Design team selected would need to verify those items and coordinate with client.</i>