

A minimum of 15,900 cfm of out door air (1/2 air change for the Fab area) is brought in through PW make up air handling unit 3MAU101-1-2. Open cross-connect dampers to the 3MAU101-1-1 duct system allow this air to be uniformly distributed to all portions of PW2, 3, and 4 ceiling supply system. Subfloor exhaust and exfiltration assure that all portions of the Fab area are ventilated. Open pass-through doors to PW1 allow the subfloor exhaust systems in that area and exfiltration maintain ventilation in PW1 with out operation of 3MAU101-1-1. Make up air flow rates may be increased above 15,900 if necessary to assure adequate pressurization during the shut down period.

POTENTIAL OXYGEN DEPLETION SOURCES
Safe dilution ratio (make up air to released gas) is 13 to 1 or more.
Rupture of a large DI line pressurized to 5 psi with Nitrogen:
Immediate volume released - 30 cubic feet
On going volume released through low pressure regulators - 28 cubic feet per minute
Dilution ratio at 15,900 cfm of make up air - 568 to 1
Rupture of a high pressure Nitrogen or Argon line at full pressure (worst case)
Immediate volume released - 450 cubic feet (preliminary)
On going volume released - 500 cubic feet per minute (preliminary)
Dilution ratio at 15,900 cfm of make up air - 32 to 1 (preliminary)

