ADCI

SAFETY ALERT!

DDC Chamber View-port catastrophic failure

This view-port was in a deck chamber where someone had placed droplight too close to the port. The resulting radiant heat from the lamp exceeded the design temperature of the view-port (125 deg. F / 51.6 deg. C.) Enough heat was generated to allow the view-port to become soft and pliable enough to allow the pressure in the chamber to flow towards atmospheric pressure. (See pictures attached) The pressure boundary was breached and the chamber vented through the view-port to atmospheric pressure. No further information on this incident is available. The danger of incandescent light bulbs in close proximity to chamber ports is well known in the diving industry. To mitigate this danger, many diving contractors have changed to the fluorescent bulb drop lights, with the understanding that they operate at a lower temperature. WE HAVE NOW DETERMINED THAT FLORESCENT LAMPS CAN ALSO GENERATE HEAT IN EXCESS OF 140 DEGREES!

Do <u>not</u> put drop lights in contact with chamber view-ports, even florescent drop lights can generate enough heat to cause the view-ports to overheat. You must always assess the heat generated from any bulb and make sure you position the bulb a sufficient distance away from the port to eliminate the possibility of any heat build-up on the face of the port. If the port feels warm to the touch, the bulb is too close!!

Measured temperatures from florescent drop lights have averaged 145 deg. F / 62.7 deg. C. (20 deg. F / -6.6 deg. C. over maximum design temperature)

LED drop lights are exhibiting temperatures under 100 deg. F / 37.7 deg. C.

LED lamps are under close investigation and will most likely replace the commonly used florescent droplight.