Ordering Argon and Replacing the Dewar

by Armando Durazo

1) Don’t order the dewar through receiving – they add on a 25% overhead to all orders that they process, this adds up over time. Instead, order the dewar directly from Airgas.

2) Obtain the blank Liquid Argon order form (which has been e-mailed to you separately) and fill in the account & name information. Have this approved, and then turn this into Kathy Rea (business office) like you would any other order. She will process the order and provide you with a P.O. # via email.

3) Call Airgas, phone # 1-562-529-8101 and tell them you want to order a high pressure (230 PSI) liquid Argon dewar. The catalog # is “AR 160LT230.” Your customer # is “1BZ41” – this will have the dewar delivered to the Chemistry loading dock. Give them the PO #, and ask for a confirmation # for the shipment.

4) When the dewar arrives, typically the next day ~3 PM, change the dewar. Do be sure to check that no MIC clients are using the ICP-OES, which is right across from the ICP-MS. Return the empty dewar to the loading dock. Put a piece of tape on the new dewar with the date that you changed it on.

5) Be sure to check the dewar after replacing it – sometimes these are defective. The dewar is feeding 2 ICPs now, and must be able to handle a situation where both instruments are in use at the same time.

6) Check the pressure gauge on the dewar (the one on the top of dewar, NOT the ones on the regulators). Is the pressure ~230 PSI? If not, open the pressure builder for a little bit, and check again – be sure to close the builder when done. If the tank dewar cannot maintain 230 PSI (i.e., it keeps venting slowly not allowing the pressure to get above ~130 PSI or so), it is a defective dewar and must be replaced. Call Airgas, they will send a replacement for free.

7) The dewar will last approximately 1 month. Be sure to check the weight of the dewar by trying to tip it – pull the rail on top towards you - (the full/empty gauges on the dewars are notoriously inaccurate). A full dewar will be essentially impossible to tip; a nearly empty one will be very easy.