```
Houston, Aquarius.
      CAPCOM
                Aquarius, Houston.
                                   Go ahead.
                What do you read down there for partial
      SC
pressure, CO.2?
                Oh, let's see. We're reading 6.6 right
      CAPCOM
now Fred. What do you read?
      SC
                I'm reading about 12.5. I guess (garble)
you get a master alarm and no caution light we kind of figure.
That's what it was with CO2 approaching its limit (garble)
                Okay. Let me get a GO and I think it's
      CAPCOM
time for us to put the other canisters on. Stand by.
                Okay. We went to 15 on DEI primary
last night before I changed it.
      CAP COM
                Roger, that Fred. W want to -
      SC
                I don't have a steady ECS light on
 at this time, Joe, so it's just for a moment.
                Okay. We know when you went to 15 last
      CAPCOM
night on the primary. We want to switch out today at 7.6.
me check and see if we're ready.
      SC
                Ok av.
      SC
                (Garble) ECS light
                Fred, Houston. (Garble)
      CAPCOM
      CAPCOM
                Okay, Aquarius. Houston.
      SC
                Houston, Aquarius. How do you read?
                You're loud and clear now, Fred.
      CAPCOM
                Okay. I was just - I'm getting mass
alarms every few seconds and I (garble)
{\tt CAPCOM} Okay. Copy. Ready to go ahead and get you on the command module canisters. As the first step,
I'd like to know whether you've inserted the commander's red
hose to the second canister bag.
                                  Over.
      SC
                Okay, yeah, sure enough commander's
red hose is inserted into the canister bag.
      CAPCOM
                Okay, Fred. The next thing I'd like
you to do is to take some more grey tape and tape over half
the outlet area of each of the blue nozzles of commander's
in the LMP. The reason we're doing this is we're going to be
running this loop through the secondary LiOH canister hole with
the canister removed and we don't have the flow restriction we
need to keep the separator from over speeding. Over.
      SC
                Okay. Yes, that's right. So we want
to tape over half of both the blue and the red commander hoses.
Is that right?
      CAPCOM
                Negative, Fred. That's half of the
commander's blue hose and half of the LMP's blue hose - outlet
hoses.
      SC
                Oh, okay. I'll tape over half of each
of the outlets.
                 Stand by.
      CAPCOM
                Okay.
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ALL DEAD AIR

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## APOLLO 13 MISSION COMMENTARY 4-15-70 CST 10:44A GET 93:31:25 394/1

SC Okay, I'm going to turn off the l (garble) flow valve at a time (garble).

CAPCOM Say, again, please Fred.

SC Okay, what I'm doing the taping. I'll
have that particular (garble) flow valve in disconnect position momentarily.

CAPCOM Okay. Fine.

AQUARIUS Okay, how do you read now Joe?
CAPCOM Okay, Fred, reasonable comm; are you ready
for the next step; over.

AQUARIUS Okay, at what correction - the red hose that's connected up right now to the lithium cartridge in the LSD (garble)

CAPCOM Okay, Fred (garble) the LMP red hose is (garble) In that case, we would like you to follow the procedure for inserting the other red hose in the other cannister bas (garbel) as follows: cut a diaganal hole in one corner of the bag stick the hose in about 6 inches and try to get the outlet nozzle down if you can, or else sideways, and just tape up the hose to the bag making a nice tight seal. Over.

AQUARIUS Okay - Jack's back in here; I guess he can do that - stand by.

CAPCOM Okay.

AQUARIUS How do you read Joe?

CAPCOM Okay Fred - is that done; over?

AQUARIUS Nope; thats still in works; I just wanted to comment you might pass on to Steve Grega we thank you for lots - for those rendezvous procedures - being able to make up these little boxes.

CAPCOM Okay, we appreciate your appreciating it. We're just having a ball down here working on all kinds of new procedures Fred, the CP CB (garble) but we expect to have your entry procedures out here by Saturday or Sunday at the very latest.

AQUARIUS Saturday or Sunday? CAPCOM At the very latest.

AQUARIUS Take your time Jack.

AQUARIUS Why don't you run that other hose back up in the tunnel so Jim can get some air.

AQUARIUS Yeah, I got it.

PAO This is Apollo Control. For the benefit of newsmen at the Houston news center, there will be a briefing in the main auditorium momentarily regarding the Apollo pressure suit; the briefer will be Mr. Bruce Ferguson of ILC Industries, in the main auditorium to start within the next few moments. AT 93 hours, 49 minutes, ground elapsed time, and standing by, this is Apollo Control.

SC and Joe how do you read now.

CAPCOM Satisfactory, Fred. Go ahead.

SC Okay, back to the condensate container I guess the only question I really need answered is will it leak CAPCOM - Is will it leak only.

SC And we've checked all the fittings and I know I can hook everything up to UCD's - if it doesn't leak we can transfer.

CAPCOM Okay, Fred, we still don't have a final answer on whether or not it'll leak. If you need it, I'd go ahead and use it, and standing by for your completion of the hose insertion procedure.

SC Okay. The hose insertion procedures (GARBLE) complete.

CAPCOM Okay. Let's complete the next step is to switch to the primary CO2 canister and remove the secondary canister and stow it. Over.

SC Okay. I'm going to have to get on COMM here, I'll let Jack get the head set.

CAPCOM Okay.

SC Hey, Joe, (GARBLE) set down.

SC Start secondary.

SC Both cartridges are out.

SC Okay, Joe, Fred has the secondary cartridge out. We're back on primary now.

CAPCOM Okay, Jack. The next step is to place the Command Module canisters with the hoses attached in a suitable location to permit the bottom of the canister to be exposed to free air flow and tape them in place. Ideally, well, it doesn't matter. Just - just pick out your own spot.

SC Okay, I'm going to tell you where they are. They're both situated (GARBLE) canister exposed to free air and one of these are right by (GARBLE)

CAPCOM Jack, Houston. The COMM got real noisy there and I didn't copy that.

SC Okay, Joe, how do you read now?

CAPCOM Okay, that's real good Jack, go ahead.

SC Okay, the canisters are situated as you would like with the bottom of the canister exposed to free air.

CAPCOM Okay.

SC The position of the LP's canister - the LP's canister is staying on the ECS panel now and the CDR's canister is positioned up in the tunnel.

CAPCOM Okay, real fine, Jack. The next step is to physically separate both blue hoses a good distance away from the canister so that we don't short circuit the flow and tape them in place and the ideal location for them would be up in the tunnel so as to get some flow into the Command Module. Over.

APOLLO 13 MISSION COMMENTARY 4-15-70 CST 11:05A GET 93:52:10 396/2

SC Both hoses in the - up in to the Command Module. CAPCOM Well, you can use your judgment on that Jack We'd like at least one and the recommendation that I got was to put them both up in the tunnel.

SC Okay, we have the LP's blue hose up by the LP's window and the, of course, the red hose is separated by itself about 4 feet. The other hose, the has the extension on it. The CDR's blue hose, of course, has the extension on it and it's blowing way up in the Command Module and the red hose is about oh, it's right at the docking ring where the blue latches are so there's about 4 or 5 feet difference from there to. Is this satisfactory?

CAPCOM Okay, Jack, that sounds satisfactory. The next steps are - are suit loop configuration steps and the first one is to place the suit diverter valve to the full Egress position.

SC Okay suit diverter valves to full Egress.

CAPCOM That's affirmative.

SC That done.

CAPCOM Okay, the next step is cabin gas return to egress. Over.

SC (GARBLE)

PAO This is Apollo Control. The briefing on the Apollo suit should begin momentarily in the main auditorium in the Houston News Center. Bruce Ferguson of ILC C industries.

CAPCOM Yes, we did turn the egress. Over.

SC No I didn't get that Joe. Cabin gas returned to egress.

CAPCOM That's correct. SC Okay that's done.

CAPCOM Okay, next, suit circuit relief to CLOSE.

Over.

SC Suit circuit relief to CLOSE.

CAPCOM Roger.

SC Okay, I got that done.

CAPCOM Okay, and the last step is select secondary CO2 canister, let it flow through the empty hole and let's see how we do.

SC Select secondary CO2 canister.

CAPCOM Roger, Jack. That completes that procedure and the next thing I've got for you is a procedure for going back into the Command Module and powering up the main BUSES temporarily using the BUS tie switches. We want to do this for two reasons: first of all, we want it absolutely verified that there are no loads on the main BUSES, that we've got everything off and that the BUSES look good, and the second thing we want to do is to power the BUS, the main BUSES with the BUS tie motor switches and then depower them by pulling the circuit breakers, leaving the main BUS tie switches in the

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CAPCOM ON position just to assure that they'll be there when we need them whether the batteries get cold or not. Over.

SC (Garbel)