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Service Reference

Topic: Location of Single Replacement Membrane Shells

Please read carefully before performing work or unpacking any further

Required Materials

- In service date of each Cell in the ED tank.

Required Tools

- None

It may be necessary to replace one or more of your Membrane Shells before they end their useful life due to accidental damage, etc. In these situations, a little planning can extend the life of the replacement Membrane Shell.

After a Membrane Shell has been in operation for several years, the Resistivity of the membrane increases. New Membrane Shells have very little resistance, so they will tend to deliver a lot more current than their older, neighboring Membrane Shells. Current flows through the least resistive path and that will be the newest Membrane Shells. In effect what happens is that the older Membrane Shells are lazy (they have more resistance) and so the new Membrane Shell works harder than it should and it then tends to wear out faster than if all the Membrane Shells were the same age.

In considering this question of where to put the replacement Membrane Shell so that it does not work too hard, it depends on how many new Membrane Shells are to be replaced. The guiding rule is that the newest Shells should be placed in the lowest current demand spot, i.e.

- *Automotive ED Line*: at the back of Zone 1 or the back end of any other Zone except the end of the final Zone.
- *Monorail ED System*: towards the exit end of the ED tank but not the last position.
- *Hoist ED System*: towards the end of the longer sides (furthest away from the ware).

Please read all the instructions listed below to familiarize yourself with the project before attempting to perform any of the work.

1. Move an older Cell from a low current demand position to the spot where the original Cell was damaged or needed replaced.
2. Use the original Electrode and the new Membrane Shell in the place vacated.
3. If you have more than just a couple of Membrane Shells to replace and especially if you are beginning to plan to replace all the original Cells, then a slightly

different strategy is called for. Request Bulletin #990157 for assistance.

For more information see the original manual that came with the equipment or else call UFS at the phone number shown above.