

Questions on what is going on with the pool heater abound, this article is to help provide answers to those questions and dispel many of the rumors that have grown up around this subject.

During the Covid 19 pandemic the changeover to natural gas at the Pioneer Center took place. During this change the outdoor pool heater was replaced with a new natural gas unit identical to the existing unit. It sat unused until we were able to open the pool when pandemic protocols allowed.

When the pool was finally opened, the heater was fired up. However, it soon developed problems. The symptoms were excessive condensation and heavy soot culminating in flames rolling out of the fire box and taking out the electrical system.

Discussions began with the heater manufacturer about these issues as well as warranty and suitability for our desired usage. We quickly learned we were out of warranty on the unit. Additionally, we learned that the unit originally installed was not suited to the cooler nighttime temperatures in our area. A constant cold-water unit was recommended.

Trying to keep the unit operating we had the exchange bundle cleaned of soot frequently but still more damage occurred. The heater was brought to the point where it could not operate a full day without becoming clogged with soot. At this point the unit was shut down.

During this period, we had the gas pressure and supply checked by Southwest Gas to insure this was not the problem. The gas supply was all within parameters.

We were also seeking a “Manufacturer certified” technician that had a current Nevada contractors license and would be willing to service Mesquite. No, the manufacturer was not helpful in this search. When we were finally successful, we had the technician come to site and clean and check the heater. He found extensive damage throughout the burner area and electrical system. The exchanger core was intact and in good shape. We requested separate bids for repair, upgrading and replacement from this service company. The bids came back at 20k for repair, 35k from an upgrade package, and 60k for replacement with a more appropriate unit and permits.

With these numbers it was decided to investigate re-engineering the heating system from its original specifications to something better able to handle our conditions and usage.

During the last number of weeks Maintenance was tasked with getting the unit operational and nursing it to keep it running into the fall season. Electrical parts are more universal, but the hard parts are much more difficult to obtain due to a controlled and very messy supply chain system. It took far too long to obtain the few burner parts we needed.

To help keep the heater running we only operate it during the day. Currently we are only seeing a few degrees of heat loss through the night. This allows us to monitor the unit while running to keep it from damaging itself. We are cleaning the exchanger bundle on a regular basis to keep the soot level down. The heater is only inoperable for a few hours while we perform this task.

Currently we have invited proposals for the redesign of the heating system for the pool. We are looking for a multi heater system instead of the single unit we currently have. We feel this will give us better flexibility especially if we are experiencing problems in the system. We are also looking into using units from manufacturers other than the one we currently use.

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Some of the criteria that will have to be taken into consideration for this redesign are; space available for heater units, maximum water flow with current pumps and piping, day and nighttime temperatures, SNHD regulations and Nevada State boiler permitting.