FEATHER RIVER RAIL SOCIETY

DATE: August 2018

ITEM: Director Report

FROM: Bob Sims

Status and Plans for the Shop Heat and UV Abatement Project

By the time of this BOD meeting, I expect all 9 items ordered from Home Depot have been delivered. The 3 swamp coolers should be operational along with the water filter attached to the faucet in the stores storage room. To avoid calcite and other mineral buildup in the flow system and to prolong the useful life of the pads, it would be wise to use only filtered water in the coolers, at least initially. The ideal setup would be if a short garden hose with trigger nozzle could be attached directly to the filter outlet and used to fill the tanks. This would avoid having to fill 1 or 2 gal. jugs and transferring them to the tanks. All 3 coolers have wheels, so they could be rolled into the store filling station and rolled back to their point of use. Once we get some experience with running times, fan speeds, and humidity levels which drive water usage rates, we can adjust our technique to what is most convenient. The smaller units have a 5 gal. tank and ice compartment while the large unit has a 10 gal. tank and separate hose connection. Could we possibly tap off the filtered ice machine supply line? I'm hoping that most cooler usage will be in the afternoon only and at low fan speed, so a tank would need filling only once a day plus a top-off or two ? I consider this entire initial phase an experiment. If successful, I will consider buying more units to spread around.

Another thing me and Greg have talked about is running an experiment to see how noisy it is outside the shop for our neighbors if we run some of the ceiling exhaust fans with selected doors/windows open to suck in cool outside air in the later evening or early morning hours. With an outside morning low under 60 deg at 530am and a 2 hour window, I think we could start the day with the shop floor below 65 deg. This should reduce the run time on the coolers and help get by with low fan settings?

The window film will be cut to pane size in the board room to take advantage of the long table (with a 4x8' cutting board put down first, Duh). Application will start with the board room windows to work out the best technique and will be done before the meeting. The film should be applied to well-cleaned cool glass using distilled water with a small amount of baby shampoo added. A spray bottle will be used to wet both glass and film sheets and squeegeed down to smooth out any wrinkles. Probably more time/effort to clean glass well than apply film. Then will shift to store starting at the outside door. A swamp cooler directed at windows may extend the application window. Rate of progress will depend on the level of volunteer help, but my goal is to finish the store, display room, and ops office, in that order, before RR days. Properties of the film selected include 99% UV blocking, 62% total solar energy rejection, and 39% visible light transmittance. It is touted as having a service life of "many years" with proper application.