000 CR 804 Cabin Mechanics Information

The cabin is completely off-grid, utilizing a 300-foot water well. The well is operated by a 12-V DC pump powered by two marine 12-V DC batteries. The batteries are recharged via solar panels equipped with a charge controller. The well is situated 700 feet from the cabin, (the water line from the well to the cabin is not buried underground). The water goes from the well to three 250-gallon water tanks for storage. A valve redirects the water to another waterline leading to the cabin. Within the cabin, a separate 12-V DC water pump circulates the water to a 40-gallon storage container. From this container, a final 12-V DC pump distributes the water throughout the cabin to all fixtures. Notably, the cabin lacks a traditional water heater. However, it does have a 5-gallon aluminum pot connected to a 12-V DC pump, which provides water to the downstairs bathroom and shower area. This 5-gallon pot can be heated using a propane burner or placed on top of the wood-burning stove.

The cabin is powered by solar energy. The solar power is routed to a bank of 12 V DC batteries, which are maintained by charge controllers. The cabin's lighting and fans are all powered by 12 V DC. The house is wired with standard Romex wiring that can be switched to 120 Volt AC. All lights and fans in the cabin are operated using regular light switches. From the 12 V battery bank, there are two power inverters that provide 120 V AC to several outlets throughout the house. This is where the microwave operates from. The storage building also has its own 12 V DC solar setup, similar to the house.