

Project Proposal to CRPWSMA for the 2014 season

The Quality Committee is submitting this project proposal. This proposal falls under our strategic priority of Quality Enhancement.

We propose a RSW pilot program. CRPWSMA would purchase a 20,000 BTU RSW system from Sea Frost. CRPWSMA member Mr. Robert Beedle would install this RSW system on his vessel, the F/V Cedar Bay. Mr. Beedle is a perfect candidate because of his extensive refrigeration background and knowledge. Mr. Beedle would give on-going reports throughout the season on how the system is working. If the system is successful and Mr. Beedle is satisfied with its performance he may purchase the system from CRPWSMA for 50% of the cost incurred (including installation and shipping) payable over five years.

The cost estimate of this RSW system is \$5,900, and a budget of \$5,900 for shipping and installation would be adequate.

Total cost of this proposal is \$11,800.00

Quality Committee:

Bill Meyer

James Mykland

Per Nolan

The following is a description of Seafrost's product taken off their Website, www.seafrost.com

Refrigerated Sea Water (RSW) Chiller

The Cool Fish RSW Chiller is a water-cooled refrigeration system that chills circulated seawater from an insulated catch storage tank. Water pumped by a circulation pump is rapidly chilled and returned to the catch tank to chill and keep the catch at the best preservation temperature for the highest quality product delivered at the dock. Capacity can be as much as (1-1/2 tons) 20,000 BTU s per hour in colder ocean waters. At this rate 50 gallons of 70-degree (F.) seawater can be cooled to 30 degrees (F.) in an hour.

Cool Fish RSW systems save installation work because the refrigeration plant is remotely located away from the catch hold. The alternative to Cool Fish is cold plates or evaporator coils in the catch hold. Cool Fish eliminates refrigerant pipes, cold plates and valves spread about the vessel where access is tight and the potential for damage and leaks is high. The corrosion risk is eliminated because there are no welded plates and tubes in salt water. Piping and hose are the only connection from the fish catch hold to the Cool Fish system. Swagelock® tube fittings are used for all connections that are not silver brazed, giving the best mechanical leak proof connection.

Simple compact construction makes Cool Fish systems easy to install in tight spaces on smaller boats. The Cool Fish barrel is made from PVC and is a full flow design that will pass any material that can be pumped.

The one-piece evaporator core is Navy alloy copper nickel tube. There are no dissimilar metals in salt water. The refrigerant expansion valve is encapsulated in an epoxy casting for maximum protection for corrosion and vibration. Single engine vessels can be fitted with the Engine Drive condensing section and compressor.

A dedicated water pump either electric or belt driven can provide water for the refrigeration condenser. The compact seawater condenser is Navy alloy copper nickel with a drawn copper rifled jacket for the refrigerant path. The receiver filter drier contains 6 oz. of molecular sieve desiccant for a reliable maintenance free operation. The receiver filter drier has a sight glass for charge inspection.