

A Cold Water Pipe for an OTEC Pilot Plant: Design Considerations

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MSB 114

Friday, December 6

3:00-3:30 pm Coffee Hour

3:30-4:30 pm Seminar

Abstract

Ocean Thermal Energy Conversion (OTEC) is a baseload renewable technology for tropical countries and islands. In order to develop this technology, pilot plants are needed to gather operational data, reduce engineering risks and improve cost efficiencies. This short design project consisted of looking at a High Density Polyethylene (HDPE) Cold Water Pipe (CWP) for a floating OTEC pilot plant, presumably in Hawaiian waters. At a conceptual level, design considerations included CWP flow rate determination, evaluating survival conditions, and fatigue life analysis.

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