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Selection of cooling fluid for an organic Rankine cycle unit recovering heat on a container ship sailing in the Arctic region

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HIGHLIGHTS

- Air-cooling and seawater-cooling approaches are compared for marine ORC units.
- While navigating in the Arctic at least 471 t of CO₂ are reduced using an ORC unit.
- Air-cooled and seawater-cooled ORC units offer regulatory compliance to the vessel.
- Seawater is the preferable cooling fluid when maximum \mbox{CO}_2 reduction is wanted.

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