

NSF Wire Pool Wire Maintenance Policy

RVSS Appendix A & B Training 2024

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Introduction

- Wire and cable distributed by the Wire Pool is a NSF resource that shall be maintained on a regular basis by vessel operators accepting wire from the pool.
- Maintenance is time consuming and costly
 - Tension member replacement
 - Delays due to tension member performance issues
 - Loss of equipment

Frequency of Maintenance

- Operational factors, Frequency of use.
- Zinc coatings will deteriorate as individual wires work under load
- Corrosion accelerated by exposure to the elements and salt spray
- Application of a lubricant/corrosion inhibitor may need to be done more frequently as the protective galvanized surface breaks down.

Maintenance Activities

- Fresh water wash
 - Dilute any salts in entrained water
 - Frequency: Every deployment preferable
 - Limited water supply may require adjustment
 - Extended periods of inactivity, winch drums periodically rotated to a new resting position to avoid concentration of corrosives at the bottom of the drum.

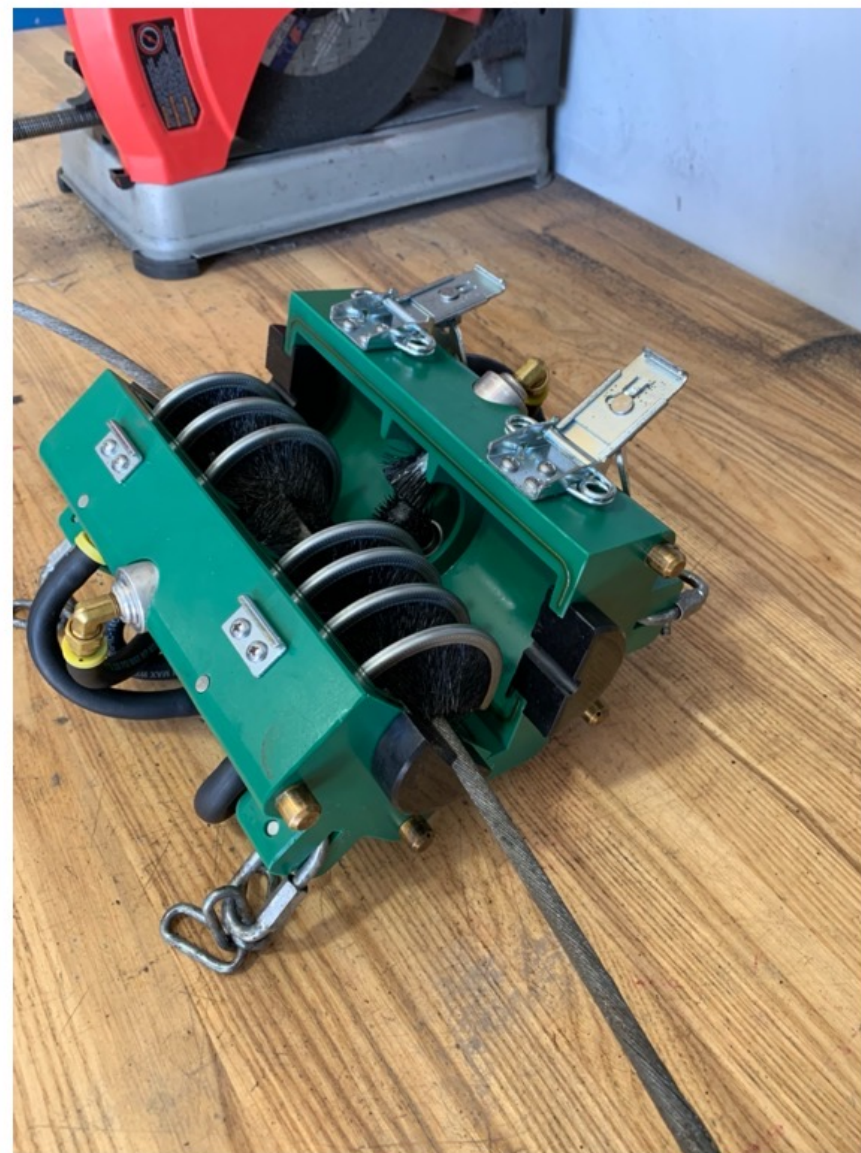
Fresh water rinse systems



Maintenance Activities (continued)

- Application of a lubricant / corrosion inhibitor
 - Newly distributed tension members need lube when initially wound on winch
 - Used wires or cables shall be lubricated at the time they are wound onto a vessel if it hasn't been done in the past 12 months or if it will not be able to be done when it is next due.
 - Minimum Application of once every 12 months
 - More Frequently
 - Signs of Corrosion, iron oxide or zinc oxide (white rust)
 - Appears dry

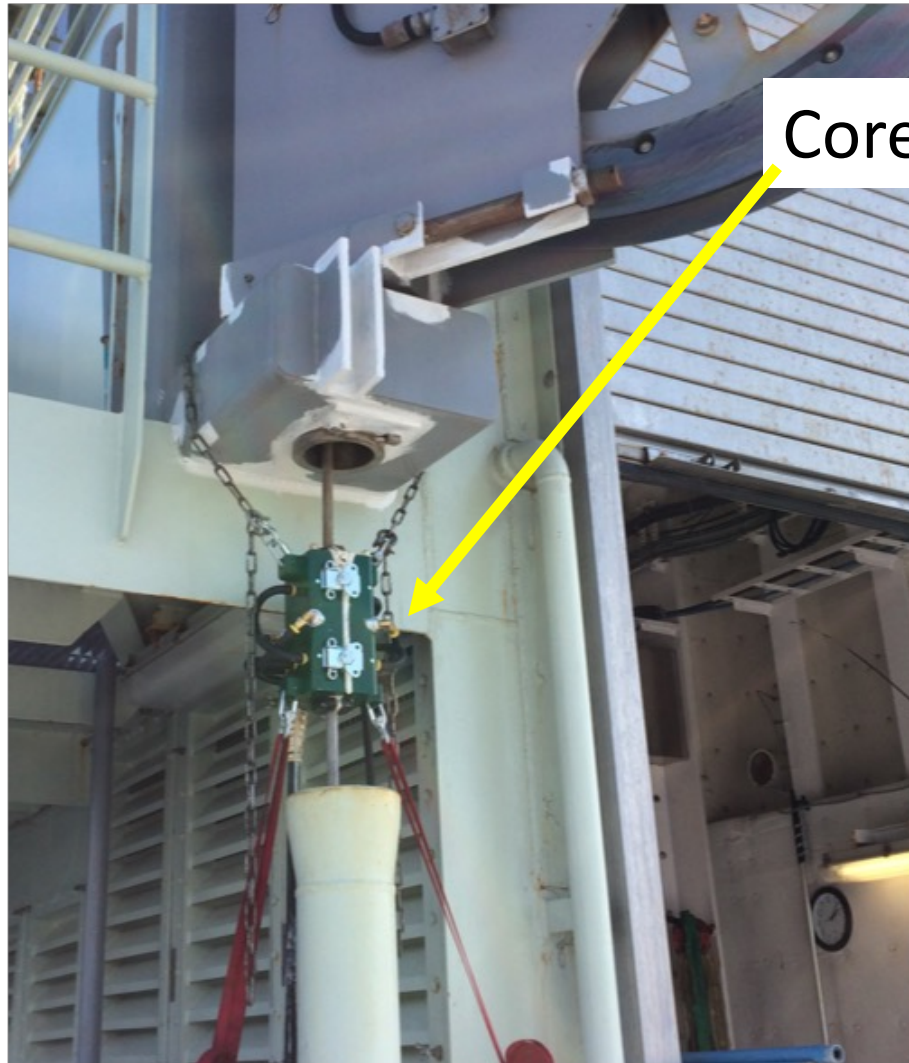
Lubricant Applicator



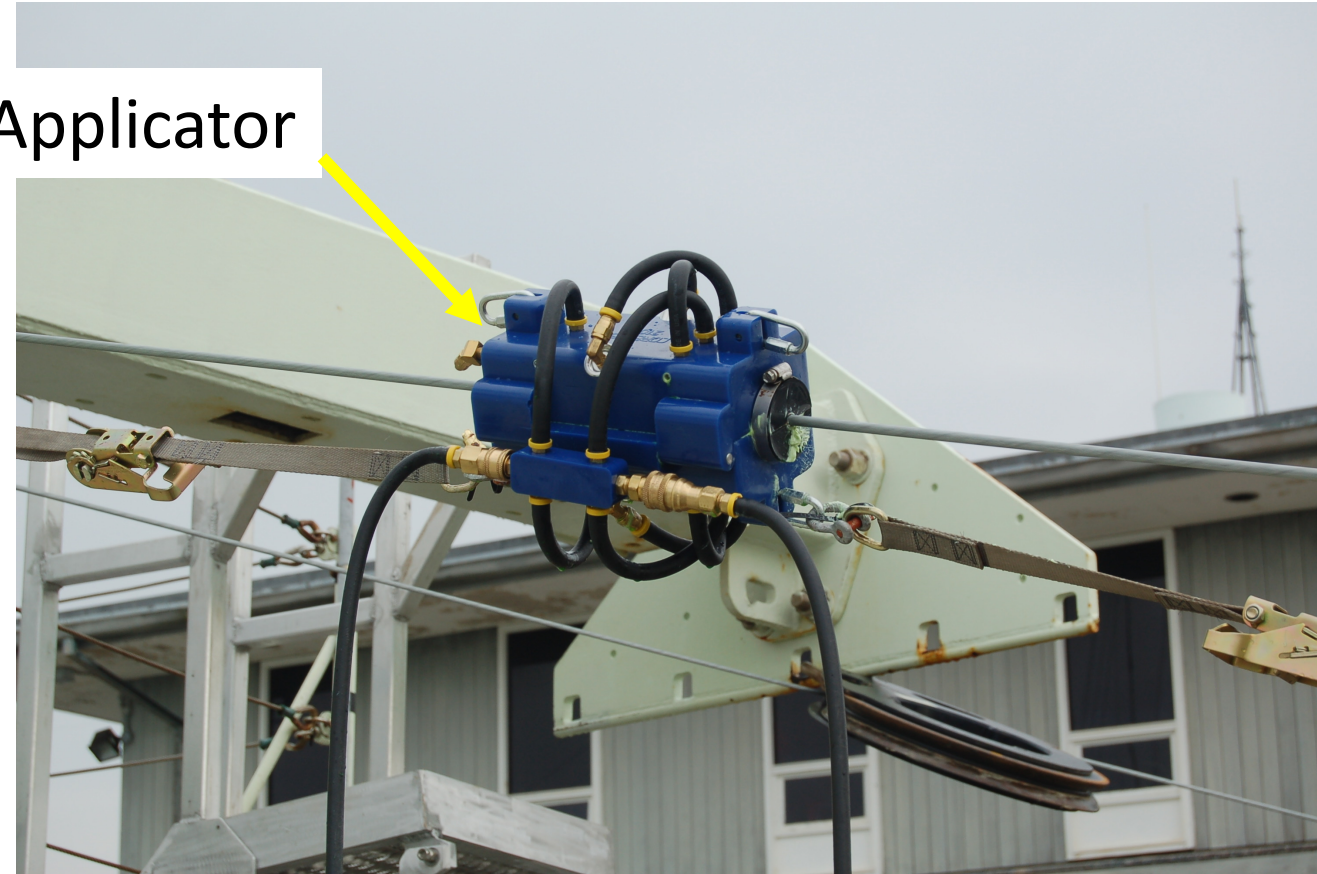
Lubricant/Corrosion Inhibitor Requirements

- Meets U.S. EPA requirements issued in the Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels (VGP) dated 19 Dec 2013.
- Specifically, from Section 2.2.9 “All vessels must use an EAL in all oil to sea interfaces unless technically infeasible. “Environmentally acceptable lubricants” means lubricants that are “biodegradable” and “minimally –toxic” and are “not bio-accumulative” as defined in Appendix A of this permit”

Lubricating Wire (Different configurations)



Corelube Applicator



Products

- Wire Pool specifies a Grignard product at the time a wire rope or cable is ordered.
- Compatible Field Dressings include:
 - Grignard Company LLC OLL-D-2
 - Grignard Company LLC PreLube 19

Steel Tension Members Placed in Storage

- Future use or no planned future use.
- No longer needed by one vessel but could be used by another.
- Maintenance requirements don't go away when it comes off the boat
- Lubricant/Corrosion Inhibitor applied during off spooling if tension member going into storage for undetermined period or if the storage period will extend beyond 12 months since last lubrication.
- While in storage kept under cover
 - Inside storage
 - Reel lagging
 - Covered by tarp or shrink wrap leaving space for ventilation

UNOLS Wire Maintenance Requirements		
Event	Action	Frequency
New tension member being wound onto vessel winch	Application of lubricant/corrosion inhibitor using recommended appliance	As placed on vessel
Tension member previously in storage being wound onto vessel winch	Application of lubricant/corrosion inhibitor using recommended appliance	As placed on vessel unless wire was lubricated within the past 12 months
Tension member in use on vessel	Fresh Water Rinse	As often as after each use or at a minimum at the conclusion of the cruise or once per month which ever is shorter.
	Rotate drum to avoid concentration of corrosives at bottom of drum	At least once per month
	Wire cleaning and application of lubricant/corrosion inhibitor using recommended appliance	As needed and at least once every 12 months
Tension member being removed from vessel and placed in storage	Wire cleaning and application of lubricant/corrosion inhibitor using recommended appliance	When removed from the vessel
	Inside storage or, if outside, cover with reel lagging, tarp, shrink wrap or other manner to protect from weather but allow adequate ventilation around wire and bottom of reel	While stored

Wire Maintenance Policy

www2.whoi.edu/site/nsfwirepool/resources/

Questions ?