<u>NAVSEA</u> STANDARD ITEM

FY-20

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<u>ITEM NO: 009-116</u>

<u>DATE: **01 OCT 2018**CATEGORY: II</u>

1. SCOPE:

1.1 Title: Waste Heat Boiler Sodium Nitrate Wet Layup; accomplish

2. REFERENCES:

2.1 S9086-GX-STM-020/CH-220, Boiler Water/Feedwater Test and Treatment

3. REQUIREMENTS:

- 3.1 Accomplish sodium nitrite wet layup of each auxiliary/waste heat boiler.
 - 3.2 Notify the SUPERVISOR one day prior to layup of each boiler.
- 3.3 The sodium nitrite layup solution must be prepared with sufficient solution to fill boiler and to provide a reservoir in a pier side tank or ship's feedwater tank.
- 3.3.1 For each 100-gallons of feed quality water (conductivity maximum of 15-micromho/cm) to be treated, dissolve one pound of sodium nitrite in accordance with Paragraphs 220-29.24.3 and 220-30.29.4 of 2.1.
- 3.3.1.1 Mixing is accomplished by dissolving the sodium nitrite in feed quality water (10 pounds will dissolve in 2-gallons of water), and then adding the dissolved chemicals to the feedwater in the tank. The tank is then circulated for 30-minutes to mix the solution.
- 3.3.2 A head tank is the easiest and preferred method of maintaining positive pressure. If a head tank method is used, locate and pipe the head tank above the highest boiler vent.
- 3.3.3 Fill the boiler with the sodium nitrite layup solution and maintain pressure using a head tank or feed pump.
- 3.3.4 Provide an authorized source of heat to the fireside/gas-side areas to prevent corrosion in accordance with 2.1.

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- 3.4 Layup is lost when the head tank level or pump discharge pressure is not maintained and cannot be reestablished. Apply dry layup if layup is lost.
- 3.5 To prepare for boiler operation, dump the boiler, feed tanks and associated piping. Flush by refilling the boiler, feed tanks, and associated piping with feed-quality water. Do not light-off with sodium nitrite layup solution in the boiler, DFT (if applicable) or feed tank. Dispose of removed solution in accordance with local, state, and federal regulations.
 - 3.5.1 Do not drain the solution to the bilge.

4. NOTES:

4.1 None.

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