From:	
-------	--

Sent: Friday, January 06, 2017 4:51 PM

To:

Subject: RE: Carnival Liberty - clarification of work order

Dea

Carnival has provided me with information responding to your questions below.

- 1. DG4 injection pump work. There was a Carnival riding team onboard the ship that performed or assisted with the injection pump work. The Senior First Engineer is the "Team D" leader, and Team D is part of the ship's crew. Because the Senior First is responsible for engine maintenance, even if performed by a riding team, the InfoSHIP work order refers to him and Team D. Carnival does not view the way that the InfoSHIP work order was filled out as being inconsistent with work accomplished by a riding team working under the Senior First Engineer's direction.
- 2. Did any of the crew who worked on this job have specific training on overhaul and part replacement for this type of fuel injection pumps? If so, was this company training or engine manufacturer training. At that time the Riding Team Motorman supervisor should have had OEM training and possibly the other motormen as well. All of Carnival's crew and Riding Teams are being assessed now and will receive additional training on diesel engines by OEM.
- 3. Was this was the last documented work on the fuel injection pump? Yes.

If a company incident report and/or lessons learned have been prepared, please provide a copy. A company report is in progress, but has not been finalized. The PM has been modified to include visual inspections of flange marking now required. It now states:

QUOTE

1.3 Visually check "pen" markings on the fuel pump hot box flanges, hold down/foundation bolts, connections, and other flanges bolted or threaded for any signs of movement. PEN markings shall be in accordance with the Technical Safety Notice TE000036 – Diesel Engine Fuel Pump Hot Box Checks.

Note: If "pen" markings show any signs of movement or if any pressure flammable oil system bolts, flanges, fasteners are loosened, re-torque in accordance with manufacturers required torque settings and create an unplanned Work Order to document accordingly.

ENDQUOTE

Please let us know if you need any more information.

Thanks and best regards,