



TECHNICAL CIRCULAR No. 507 of 07<sup>th</sup> September 2018

To: All Surveyors/Auditors

Applicable to flag: All Flags

**Caribbean Sea EGCS Exhaust Gas Cleaning System**

Reference: MARPOL Annex VI Regulation 4

**Caribbean Sea EGCS Exhaust Gas Cleaning System**

This circular addresses Annex VI compliance issues for a range of circumstances. Vessel operators are encouraged to contact EPA (Environmental Protection Agency) or U.S. Coast Guard before applying these responses for a particular set of circumstances.

**Exhaust Gas Cleaning Systems (EGCS)**

**U.S. EPA requirements for the disposal of sludge from an EGCS are:**

Sludge or residues generated in treating exhaust gas scrubber washwater discharge must not be discharged in waters subject to the VGP (Vessel General Permit) (i.e., including waters of the territorial sea up to a distance of three miles) and should be delivered ashore to adequate reception facilities. VGP 2.2.26. The United States further expects MARPOL Annex VI Regulation 4 equivalency approvals to be conditioned upon compliance with IMO guidelines, including IMO's 2015 Guidelines for Exhaust Gas Cleaning Systems. See Regulation 4.3. The 2015 Guidelines at 10.4 explain that EGCS residues should not be discharged to the sea, and Annex VI prohibits incineration on board.

**For open loop EGCS, will EPA consider the effluent pH value based on a calculation (i.e., computational fluid dynamics) as described in IMO Resolution MEPC.259(68) 2015 Guidelines for Exhaust Gas Cleaning Systems?**

EPA clarified in the response to comments for the 2013 VGP that a computational calculation is not an approved method for demonstrating compliance with Vessel General Permit (VGP) pH requirements. (RTC, p.981).

**For discharges of scrubber wash water effluent from open loop EGCS outside three miles but within an ECA, has EPA developed any additional requirements for scrubber wash water effluent pH outside the area where the VGP applies?**

EPA has not established requirements that apply to scrubber washwater effluent beyond the requirements implemented through the VGP. However, as noted above, the United States expects Regulation 4 equivalency approvals to be conditioned upon compliance with IMO guidelines, including IMO's 2015 Guidelines for Exhaust Gas Cleaning Systems. See Regulation 4.3.

**What are EPA concerns with the measurement of polycyclic aromatic hydrocarbons (PAH),**

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**turbidity and temperature in the effluent from the EGCS?**

As part of EPA’s development of its 2013 VGP, the Agency evaluated EGCS washwater discharges and prepared a report summarizing our findings. That EPA report, “Exhaust Gas Scrubber Washwater Effluent”, EPA-800-R-11-006, November 2011, is available online and provides a discussion of those pollutants and monitoring of those pollutants. EPA expects to continue to assess the monitoring of these pollutants over the life of the permit.

**Does the EPA require the effluent from EGCS to be treated?**

The 2013 VGP requires EGCS effluent to meet certain numerical discharge limitations. The permit does not specify how the operator is to meet these limitations, although, EPA expects that in most instances, compliance with the numeric limitations cannot be achieved except through treatment. Also, as specified in Part 2 of the VGP, vessel operators cannot use dilution as a substitute for treatment for the purpose of meeting effluent limitations.

**What concerns does the EPA have for the reliability, calibration and maintenance of the continuous emission monitoring equipment?**

We do not have concerns about the reliability, calibration, and maintenance of the continuous emission monitoring equipment. Specifications are set out in IMO’s scrubber guidelines, and measurement equipment meeting the appropriate specifications is commercially available today. The VGP requires that this equipment be calibrated as recommended by the equipment manufacturers. At a minimum, this means at least annual calibration although EPA acknowledges that it may be much more frequent.

REFERENCES:

- MEPC.259(68) 2015 Guidelines for Exhaust Gas Cleaning Systems (EGCS),

- ATTACHMENTS: No.

Kindest Regards,  
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