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To: **MARINE COMMITTEE** **MC(08)49**

Copy: **All Full and Associate Members (for information)**
Environment Sub-Committee
Radio & Nautical Sub-Committee

US DRAFT RULE-MAKING - NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Action required: Members are invited to distribute the attached note on NPDES requirements to companies trading to the USA.

The ICS secretariat has had a number of enquiries regarding the implementation of new US rule-making on the National Pollutant Discharge Elimination System (NPDES). It will be recalled that MC(08)43 provided comments on the NPDES system by the Chamber of Shipping of America and Intertanko.

It is understood that, by court order, the application date has now been delayed until 19th December 2008 but that does not give much time for companies to consider compliance options. One of the members of the Chamber of Shipping of America, IAS, has very kindly provided an operational note on compliance requirements. Companies trading to the USA and therefore subject to this rule-making are invited to review the IAS note with a view to adopting a similar approach.

P B Hinchliffe
Marine Director

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	OPERATIONS MANUAL - VESSEL POLICY SUPPLEMENT **OPSMEMO**	No. : OPSMEMO #D-02 Date: 8/19/08 Prep: HR Appr: RR Page: 1 of 7

Customers affected by this notice:

MARAD/MSC	T	**TOTE**	T	**SBX**	T
SEA STAR	T	**ARC**	T	**REDSTONE**	T
INTERLINE	T	**PRIORITY**	T		

OPSMEMO #: **D-02**

ISSUE DATE: 8/15/08

DATE REC'D ON BOARD:

TITLE: National Pollution Discharge Elimination System

0 Pages Attached

PURPOSE

This memo has been compiled to inform all concerned about a new environmental permit program for vessels operating in US waters.

INTRODUCTION

The maritime industry is faced with an expansion of the federal, state and international (MARPOL) regulations regarding discharges from vessels. This latest regulatory initiative will affect ALL forms of discharges from and off of vessels plying US inland and territorial waters. The regulations contained in the National Pollution Discharge Elimination System (NPDES) permit will affect all vessels operated by IAS.

HISTORY

The Clean Water Act was established in 1973. Since that time, the EPA had excluded vessel discharges incidental to the operation of a vessel from the permits required for many other industries. In 1999, a petition was submitted to the EPA by various state and regional environmental groups requesting the lifting of this exclusion. This petition was denied and later a lawsuit was filed. In 2005, the US District Courts found that the exclusion exceeded the authority of the EPA. In 2006 the court's final order called for the revocation of the exclusion as of September 30, 2008. The EPA filed an appeal of this court order that was denied. It has been observed by many, that the short time period given by the US District Court limited the EPA in their ability to collect input from all of the various entities affected by this permit. Over the past few months, the EPA has been taking comments and doing a great deal of research trying to develop a permit that will both comply with the court ruling and cause the least disruption for the shipping industry.

APPLICIABILITY

NOTE: This notice becomes effective upon receipt. The policy or notice contained herein must be logged into the OPSMEMO binder and all affected persons shall be immediately notified.

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On October 1, 2008 all vessels will automatically be covered by the Vessel General Permit (VGP) and must comply with the requirements of the permit. Within 6 to 9 months after October 1st, IAS is required to submit a Notice of Intent (NOI) to discharge for all vessels. If a NOI is not submitted, vessels will be prohibited from discharging any of the affected (28) discharges in inland waters and the territorial waters of the US (within 3 NM of shore). This applies even if the discharge is within permit limits. This NOI submission will be done by the IAS Operations Department. There is a long list of areas that are "Federally Protected for Conservation Purposes". These areas have a higher level of protection by this permit. The list is very long and includes mostly inland waters and conservation areas.

After reviewing the proposed regulation, this memo will summarize the ways that the permit will most affect IAS affiliated ships. There are 28 discharges covered by this permit. Many of them are already regulated and many of the general shipboard practices already reduce and/or prevent these discharges from entering the regulated waters. It is important that we stress to shipboard personnel that a heightened awareness of anything that goes over the side is needed in order to comply with this permit.
Below is a list of requirements applicable to ALL vessels regardless of type and a very brief description and interpretation of how this permit will affect current shipboard practices:

1.) Material Storage – For items or other onboard materials that may wash overboard, a storage area must be provided. Should there be a mixture of water with oily materials proper clean-up, storage and disposal of the oily water must take place. *(This is already common practice and should not result in a major change.)*
2.) Toxic or Hazardous Materials – Hazmat must be located in protected areas of the vessel and be contained in proper containers ensuring that no incompatible wastes are mixed. Containers holding toxic materials are not authorized to be jettisoned. *(This is already the standard practice on most vessels)*
3.) Fuel Spills /Overflows – Practices must be designed to include containment and quick cleanup should a fuel spill occur and proper training should be provided to crew involved in fueling ops. *(This is a standard practice included in the current IAS ISM system and is covered by the SOPEP and NTVRP.)*
4.) Discharge of Oily Mixtures - Must comply with MARPOL Annex I. *(We already comply with MARPOL Annex I)*

The 28 specific discharge categories are listed below with a brief description. The IAS interpretation of the effect on IAS operated vessels is in (parenthesis) and *italicized*:

1.) Deck Wash-down and Runoff – All debris, garbage and residues must be clear prior to conducting wash-downs and prior to departing port. Machinery must have containment or drip pans to collect oily waste that must be cleaned regularly and oily waste disposed of properly. Discharges from deck wash-downs should be free from floating solids, visible foam, halogenated phenol compounds and dispersants. ***Vessel operators must minimize deck wash-downs while in port. If wash-downs will result in discharge, environmentally friendly cleaners must be used and should be biodegradable.*** *(To ensure compliance, deck wash-downs should be postponed until the vessel is outside of the regulated waters.)*
2.) Bilge water – *(This section in the regulation is rather lengthy but it has been determined that IAS policy and compliance with MARPOL Annex I already fulfills requirements covered by this permit regarding bilge water.)*
3.) Ballast water – *(This is another lengthy and detailed section. Ballast water and invasive species is one of the main focuses of this permit. Since IAS has a Ballast Management plan on board every vessel and we comply*

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with the current USCG and state specific regulations, this should not drastically affect IAS vessels. Some adjustments may need to be made to the Ballast Water Management binder and any changes will have to be stressed to the vessel master to ensure compliance. IAS is in the process of reviewing the current Ballast Management plan and will publish changes as necessary.)

4.) Anti-Fouling Hull Coatings – Any hull coatings purchased from a US company must be in compliance with Federal Insecticide, Fungicide, and Rodent-icide Act (FIFRA – 40 CFR 142.15). If purchased overseas, the hull coating cannot contain any materials banned for use in the US. At the time of application or re-application of hull coatings, considerations must be given to choosing the coating least harmful to the environment. (IAS is *for the most part in compliance with these standards already as voluntary participants in the International Convention on Control of Harmful Antifouling Systems. If not, the requirement states that if a vessel is not in compliance every effort should be made to apply approved hull coatings at the next dry-docking. Certificate 2.23a – voluntary Compliance - Anti Fouling System.)*

5.) Aqueous Film Forming Foam – AFFF is authorized to be discharged for emergency purposes and when needed to ensure the safety of the ship. Maintenance and training discharges are **not** permitted. When discharge is required for regulatory certification or inspection every effort must be made to minimize discharge or a substitute agent must be used. Vessels not leaving the territorial sea more than once per month must collect the AFFF and send it to a shore facility. Maintenance and training discharges are **not** permitted in PORT. All vessels operating in or within 1 NM of protected/conservation areas are **not** permitted to discharge AFFF other than for emergency purposes. If discharge occurs in these areas it must be logged with an explanation. (*Vessels should do any AFFF training or maintenance before entering US territorial sea. Of course fixed AFFF systems are repaired or serviced by a contractor that would only be able to come to the ship while it is in port. This would require collection of any expended foam due to maintenance.)*

6.) Boiler/Economizer Blow down – This discharge must be "minimized" in port if chemicals or other additives are used to reduce impurities or prevent scale formation. Vessels that leave the territorial sea at least once per week may **not** discharge blow down in waters subject to the permit **except for safety purposes.**

7.) Cathodic Protection – Sacrificial metals are not to be used more than necessary and must be replaced or cleaned during dry-docking so that the release of metals is minimized. Magnesium is the least toxic metal used and it should be used whenever feasible and economically practical and achievable. (*This is an issue to consider when a vessel is dry-docked.)*

8.) Chain Locker Effluent – Anchor Chains must be "thoroughly washed down (i.e., more than a cursory rinse) as it is being hauled out of the water to remove sediment". When dry-docked, cleaning of the chain locker should take place. (*It is general good practice and normal procedure onboard most ships to wash down the anchor chain when heaving anchor. A log entry should be made in the deck log book when the anchor wash down is conducted. This way if a question should arise there is a record. Chain locker cleaning must be a made part of the standard dry dock specification when ever the chain is ranged and painted.)*

9.) Controllable Pitch Propeller Hydraulic Fluid – (*Any leaking or spill of any oil is covered by SOPEP and NTVRP)*

10.) Distillation and Reverse Osmosis Brine – Shall not contain or come in contact with machinery that deals with hazmat or wastes.

11.) Elevator Pit Effluent – Not authorized for discharge unless in cases of emergency and then only through OWS.

12.) Firemain Systems – authorized when needed to ensure safety and security of vessel. Minimize discharges when in port. In protected/conservation waters, discharge of the firemain system is not permitted except in

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emergency situations or when washing down the anchor chain. (*There was a comment submitted regarding USCG COI requirements for the testing of fire hoses and if it is permitted in the "protected areas". The results of the submittal of this comment are not yet known, but it is a reasonable concern.*

13.) Freshwater Layup – Minimize amounts of disinfectants used in freshwater layup to minimum required to prevent aquatic growth.

14.) Gas Turbine Wash Water – Must not be discharged in waters subject to this permit. Where feasible, wash water should be prevented from co-mingling with bilge water that may be discharged in permit waters. It should be collected in a separate tank and discharged ashore. (*In most cases this water would usually be treated through the OWS. Since it specifies the prevention of "co-mingling with bilge water", this does not seem to meet the requirements. Applicability to IAS affiliated vessels is not clear, but there is a need to follow up on the specifics.*)

15.) Gray-water – "Minimize" discharge of gray-water while in port. This means reducing the production of gray-water for vessels that do not have the capacity to store it. Vessels in protected/conservation areas that can store gray-water **shall not** discharge it. Disposal of kitchen oils in graywater must be reduced as much as practicable (already an IAS practice.) Detergents used must be non-toxic and free from bio-accumulative compounds and must not affect the PH of the receiving water. Vessels with adequate storage **shall not** discharge in the nutrient impaired waters of the Chesapeake Bay or Puget Sound. Vessels without adequate storage must only discharge when underway in waters with significant circulation and depth. *(All vessels should, if possible, retain gray-water onboard until outside of regulated areas. Please note that the requirements of the permit state that **NO** discharge of gray-water is permitted in the Chesapeake and Puget Sound if the vessel has adequate storage. Efforts should be made by the crew to reduce the production of gray-water. This will affect a number of IAS affiliated vessels, investigation into the capacities of gray-water tanks of each vessel should be made and some course of action must be taken to ensure that gray-water is not discharged, unless absolutely necessary, in the Chesapeake and Puget Sound – this could pose a significant problem for ARC Ships and MARAD ships that spend a great deal of time in the Chesapeake.*)

16.) Motor Gasoline and Compensating Discharge – Must have less than 15 PPM oil concentration. (*This needs more information as the discharge levels inland are zero.*)

17.) Non-oily Machinery Wastewater – Must be free from oils and additive toxic or bio-accumulative in nature.

18.) Refrigeration and Air Condensate Discharge – Must not come in contact with oily or toxic materials.

19.) Rudder Bearing Lubrication Discharge – Seals must be in good operating order to prevent leaking of oil. (*Any leaking of any oil is covered by the SOPEP and NTVRP).*

20.) Seawater Cooling Overboard Discharge – When possible, cooling overboard should be discharged when underway. EPA recommends shore power or a shore generator where shore power is not available. (*This has the potential of being costly and very impractical – comments have been made by many parties regarding this issue. If a vessel is staying in port for an extended period of time, it may be in our best interest to make arrangements for shore power or a shoreside generator in order to best comply. The proposed CA regs for "cold-iron" in port are over and above this requirement.*)

21.) Seawater Piping Biofouling Prevention – Chemicals subject to FIFRA registration must be used in accordance with manufacturer's label. No pesticides or banned chemicals may be discharged. Discharge must contain as little chlorine as possible. Fouling organism must be removed from piping on a regular basis and can only be discharged into the water more than 50 NM from shore. (*If the cleaning of piping is not already a standard PM on all vessels this would need to be changed.*)

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22.) Small Boat Engine Wet Exhaust – Small boat engines must be maintained and tuned in accordance with manufacturer. Low sulfur or alternative fuels should be used. (*In most cases, this would apply to Lifeboats and Rescue boats. As with all equipment, especially safety equipment, proper maintenance is already required.)*

23.) Sonar Dome Discharge – Water inside the Sonar Dome shall not be discharged (*Not an IAS issue at present.)*

24.) Stern Tube Oily Discharge – Maintain stern tube seals to reduce chances of leakage. Operators must have appropriate equipment available to clean up potential spills. (*Any leaking oil is covered by the SOPEP and NTVRP*)

25.) Underwater Ship Husbandry Discharges – Whenever possible, hull-cleaning activities should take place in dry-dock. Vessels that remove fouling organisms from hulls while waterborne must use methods to minimize discharge of organisms.

26.) Welldeck Discharges – Shall not be discharged in permit affected waters.

27.) Gray-water Mixed with Sewage from Vessels – Co-mingled discharge of graywater mixed with sewage must comply with gray-water discharge rules and sewage requirements set forth in section 312 of the Clean Water Act. (*We already comply with Clean Water Act section 312.)*

28.) Exhaust Gas Scrubber Wash water Discharge – Must not contain oil, oily mixtures in quantities that may be harmful. Sludge generated form wash water must not be discharged.

All of the above information was gathered from the proposed NPDES permit found on the EPA website. Since the comment period has just passed, there may be some changes to the requirements. This has been a very general breakdown of the discharges and related requirements. As you can see for the most part the majority of IAS policies comply. There may have to be some adjustment. The Chamber of Shipping of America and Intertanko jointly submitted a 60+ page document with comments to the EPA on behalf of the shipping industry. IAS has subscribed to a mailing list for NPDES related information from the EPA and should be notified of any changes to the proposed permit and will then update all concerned. The Chamber of Shipping is very involved in this issue and we will be monitoring their bulletins for developments.

ACTIONS BY VESSEL PERSONNEL

1. Initially, vessel personnel need to be aware of the discharges defined above and make efforts to comply.

2. Whenever any discharge that is "not permitted" is made, a log entry should be made by the captain or person in charge of the vessel, describing the reason for the discharge.

   The master must ensure that at least once per week or per voyage, whichever is more frequent, that a routine visual inspection of all areas addressed by these regulations is conducted. Document any areas of non-compliance. Conduct a visual inspection of deck and cargo areas and all accessible areas where chemicals, oils, dry cargo or other materials are stored, mixed, and used, whether or not the areas have been used since the last inspection. The inspection should verify whether all monitoring, training, and inspections are logged according to permit requirements.

   At least once per quarter, the vessel must sample any discharge stream such as bilge water or gray-water (if accessible) that is not readily visually inspected, such as effluent streams discharged below the water line.

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Inspect the sample for any signs of visible pollutants or constituents of concern, including discoloration, visible sheens, suspended solids, floating solids, foam, or changes to clarity. Any remedial or preventative actions must be recorded in the deck or engine log.

Comprehensive annual inspections must cover all areas of the vessel affected by the requirements in this permit. Special attention should be paid to those areas most likely to result in a discharge likely to cause or contribute to exceedances of water quality standards or violate effluent limits established in this permit. Areas that inspectors must examine include, but are not limited to:

- Vessel hull for attached living organisms, flaking anti-fouling paint, exposed TBT surfaces,
- Ballast water tanks, as applicable
- Bilges, pumps, and OWS sensors, as applicable,
- Protective seals for lubrication and hydraulic oil leaks, and
- All visible pollution control measures to ensure that they are functioning properly.

The inspections must also include a review of monitoring data collected in accordance with Part 5 if applicable, and routine maintenance records to ensure that required maintenance is being performed (e.g., annual tune-ups for small boats that have wet exhaust). Inspectors must also consider the results of the past year's visual and analytical monitoring when planning and conducting inspections.

3. So far, the enforcement guidelines and responsibilities have not been defined. In our research, the EPA mentioned that the USCG would be the "inspecting party." As this new set of regulations develop, we ask that all vessels submit comments and observations related to enforcement actions by regulatory bodies. These lessons learned will be shared with industry and other IAS vessels. The fear is that this becomes a district by district, point by point interpretation. Our best response is to share our experiences and use the Chamber of Shipping to coordinate our comments to USCG/EPA.

4. Discharge of gray water – the verbiage currently discourages discharge in the Chesapeake and Pugent Sound. It is reasonable to assume that this requirement will move to a more enforceable language in the not too distant future. We will need to consider adequate storage capability for all ships.

5. IAS will update this OPSMEMO until the regulations become more firmly defined. At that point we will most likely open a new section in the Ballast Water Manual.

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