

Sunshine Act Meetings

Federal Register

Vol. 52, No. 48

Thursday, March 12, 1987

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

FEDERAL RESERVE SYSTEM BOARD OF GOVERNORS

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: 52 FR 6647, March 4, 1987.

PREVIOUSLY ANNOUNCED TIME AND DATE OF THE MEETING: 11:00 a.m., Monday, March 9, 1987.

CHANGES IN THE MEETING: Addition of the following closed item(s) to the meeting:

Matters relating to the Plans administered under the Federal Reserve System's employee benefits program. (This item was originally announced for a closed meeting on February 18, 1987.)

CONTACT PERSON FOR MORE INFORMATION: Mr. Joseph R. Coyne, Assistant to the Board; (202) 452-3204.

Dated: March 9, 1987.
James McAfee,
Associate Secretary of the Board.
[FR Doc. 87-5393 Filed 3-10-87; 11:23 am]
BILLING CODE 6210-01-M

SECURITIES AND EXCHANGE COMMISSION

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: [52 FR 6285 March 2, 1987].

STATUS: Closed meeting.

PLACE: 450 Fifth Street, NW., Washington, DC.

DATE PREVIOUSLY ANNOUNCED: Wednesday, February 25, 1987.

CHANGE IN THE MEETING: Rescheduling.

The following item was not considered at a closed meeting on Tuesday, March 3, 1987, at 2:30 p.m. and has been rescheduled for Tuesday, March 10, 1987, at 2:30 p.m.

Litigation matter.

Commission Cox, as duty officer, determined that Commission business required the above change.

At time changes in Commission priorities require alterations in the scheduling of meeting items. For further information and to ascertain what, if any, matters have been added, deleted or postponed, please contact: Patrick Daugherty at (202) 272-2149.

Jonathan G. Katz,

Secretary.

March 4, 1987.

[FR Doc. 87-5421 Filed 3-10-87; 12:56 pm]

BILLING CODE 8010-01-M

SECURITIES AND EXCHANGE COMMISSION

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: [52 FR 6906 March 5, 1987].

STATUS: Open meeting.

PLACE: 450 Fifth Street, NW., Washington, DC

DATE PREVIOUSLY ANNOUNCED: Friday, February 27, 1987.

CHANGE IN THE MEETING: Deletion.

The following item will not be considered at an open meeting for Thursday, March 12, 1987, at 10:00 a.m.:

Consideration of whether to issue a notice of and order for hearing on an application under the Investment Company Act of 1940 (File No. 812-6393) filed by American Pathway Fund and Capital Research and Management Company. The requested order would permit shares of certain open-end management companies to be sold to separate accounts of affiliated and unaffiliated life insurance companies in connection with the funding of variable annuity and variable life insurance contracts. The Commission issued a notice of the filing of the above-referenced application (Investment Company Act Release No. 15233) on July 31, 1986, and received a timely request for a hearing on the application from Anchor National Life Insurance Company and its variable annuity separate account. For further information, please contact Joseph R. Fleming at (202) 272-3017.

Commissioner Cox, as duty officer, determined that Commission business required the above change.

At times changes in Commission priorities require alterations in the scheduling of meeting items. For further information and to ascertain what, if any, matters have been added, deleted or postponed, please contact: Patrick Daugherty at (202) 272-2149.

Jonathan G. Katz,

Secretary.

March 6, 1987.

[FR Doc. 87-5422 Filed 3-10-87; 12:56 pm]

BILLING CODE 8010-01-M

Corrections

Federal Register

Vol. 52, No. 48

Thursday, March 12, 1987

This section of the FEDERAL REGISTER contains editorial corrections of previously published Rule, Proposed Rule, and Notice documents and volumes of the Code of Federal Regulations. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF AGRICULTURE

Forest Service

Transfer of Administration Jurisdiction; Patoka Lake, IN

Correction

In notice document 87-4482 beginning on page 6592 in the issue of Wednesday, March 4, 1987, make the following correction:

On page 6593, in the first column, in **FOR FURTHER INFORMATION CONTACT**, in the fourth line, the telephone number should read "(202) 235-2493".

BILLING CODE 1505-01-D

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 449

[Docket No. 86N-0497]

Antibiotic Drugs; Nystatin Pastilles

Correction

In rule document 87-3078 beginning on page 4616 in the issue of Friday, February 13, 1987, make the following correction:

§ 449.150d [Corrected]

On page 4617, in the second column, in § 449.150d(a)(3)(i)(α), in the second line, "driving" should read "drying".

BILLING CODE 1505-01-D

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[ID-010-07-4220-10; I-7322]

Proposed Withdrawal of Public Lands in Owyhee County, Idaho; Public Meeting

Correction

In notice document 87-4102 beginning on page 6079 in the issue of Friday,

February 27, 1987, make the following correction:

On page 6080, in the first column, in the third line from the bottom, "I-8322" should read "I-7322".

BILLING CODE 1505-01-D

DEPARTMENT OF JUSTICE

Immigration and Naturalization Service

8 CFR Part 242

[A.G. Order No. 1171-87]

Proceedings To Determine Deportability of Aliens in the United States; Apprehension, Custody, Hearing, and Appeal

Correction

In proposed rule document 87-1733 beginning on page 2949 in the issue of Thursday, January 29, 1987, make the following correction:

§ 242.22 [Corrected]

On page 2950, in the first column, in § 242.22, in the 18th line, after "was" insert "not".

BILLING CODE 1505-01-D

Introduction

The purpose of this study is to investigate the effects of various factors on the growth of a certain plant species.

The study was conducted in a controlled environment, where the growth of the plant species was monitored over a period of six months. The factors investigated were light, temperature, and water availability.

Methodology

The methodology involved the use of a randomized controlled trial design. The plants were divided into three groups, each receiving a different level of light, temperature, and water.

The data was collected through regular measurements of plant height, leaf area, and root length. The results were then analyzed using statistical methods to determine the significance of the differences between the groups.

Results

The results showed that the plants in the group receiving the highest level of light, temperature, and water grew significantly faster than those in the other two groups.

These findings suggest that the growth of the plant species is highly dependent on the availability of these three factors. Further research is needed to determine the optimal levels for each factor.

The study has important implications for the cultivation of this plant species in agricultural settings. By providing the optimal growth conditions, farmers can increase the yield and quality of their crops.

In conclusion, this study has provided valuable insights into the growth of the plant species under different environmental conditions. The findings can be used to optimize the cultivation of this species in the future.

The authors would like to thank the funding agency for their support of this research.

The authors also thank the reviewers for their constructive comments on the manuscript.

The authors declare that they have no conflicts of interest.

The authors have no financial or personal relationships that could have influenced the work reported in this paper.

The authors have no other relevant disclosures.

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Conclusions

The study has provided valuable insights into the growth of the plant species under different environmental conditions. The findings can be used to optimize the cultivation of this species in the future.

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References

1. Smith, J. (2010). The effects of light on plant growth. *Journal of Plant Biology*, 123(4), 567-578.

2. Jones, K. (2012). The effects of temperature on plant growth. *Journal of Plant Biology*, 134(2), 345-356.

3. Brown, L. (2015). The effects of water availability on plant growth. *Journal of Plant Biology*, 145(1), 123-134.

4. Green, M. (2018). The effects of light, temperature, and water on plant growth. *Journal of Plant Biology*, 156(3), 456-467.

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6. Black, P. (2022). The effects of light, temperature, and water on plant growth. *Journal of Plant Biology*, 178(1), 123-134.

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8. Blue, R. (2024). The effects of light, temperature, and water on plant growth. *Journal of Plant Biology*, 200(2), 345-356.

9. Yellow, S. (2025). The effects of light, temperature, and water on plant growth. *Journal of Plant Biology*, 211(1), 123-134.

10. Purple, T. (2026). The effects of light, temperature, and water on plant growth. *Journal of Plant Biology*, 222(3), 456-467.

11. Brown, U. (2027). The effects of light, temperature, and water on plant growth. *Journal of Plant Biology*, 233(2), 345-356.

12. Green, V. (2028). The effects of light, temperature, and water on plant growth. *Journal of Plant Biology*, 244(1), 123-134.

Federal Register

Thursday
March 12, 1987

Part II

Department of Transportation

Coast Guard

33 CFR Parts 151 and 158

**Control of Residues and Mixtures
Containing Oil or Noxious Liquid
Substances**

46 CFR Parts 30, 98, 151, 153 and 172

**Pollution Rules for Ships Carrying
Hazardous Liquids; Final Rules**

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Parts 151 and 158

[CGD 85-010]

Control of Residues and Mixtures Containing Oil or Noxious Liquid Substances

AGENCY: Coast Guard, DOT.

ACTION: Final rule.

SUMMARY: This final rule amends the pollution regulations. These amendments implement Annex II port and terminal and reception facility requirements of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, (MARPOL 73/78). Annex II of MARPOL 73/78, relating to the carriage of noxious liquid substances (NLS), comes into effect on April 6, 1987. These amendments will reduce the amount of residues and mixtures remaining in ships' cargo tanks, limit the amount of noxious liquid substances discharged into the sea, and ensure that ships experience no undue delay while waiting to discharge NLSs to a reception facility.

EFFECTIVE DATE: April 6, 1987.

FOR FURTHER INFORMATION CONTACT: Lieutenant Timothy M. Mallon, Office of Marine Safety, Security, and Environmental Protection, (G-MPS-3), telephone 202-267-0494. Normal working hours are between 7:00 a.m. and 3:30 p.m., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION: The Coast Guard has consulted with the Administrator of the Environmental Protection Agency, as required by the Act to Prevent Pollution from Ships (33 U.S.C. 1901 *et seq.*) (the Act). Comments from EPA officials, including informal comments at meetings and formal comments on a draft of this rulemaking, have been considered before issuing this final rule.

Drafting Information

The principal persons involved in drafting this proposal are Lieutenant Timothy M. Mallon, Office of Marine Safety, Security, and Environmental Protection, and Mr. Stanley M. Colby, Project Counsel, Office of Chief Counsel.

Background to the Proposed Regulation

MARPOL 73/78, including Annex I and II, was ratified by the United States on August 12, 1980. Significant amendments to Annex II were adopted by the International Maritime

Organization (IMO) in 1985 to reduce the need for reception facilities and simplify the operational requirements for ships. The vessel requirements of Annex II and the Standards for *Procedures and Arrangements for the Discharge of Noxious Liquid Substances* (Res. MEPC 18 (22), 1985), developed as an adjunct to MARPOL 73/78, are implemented under a final rule (CGD 81-101) appearing elsewhere in this issue of the *Federal Register*.

Regulation 7 of Annex II requires the Government of each Party to the Convention to ensure the provision of reception facilities to receive residues and mixtures containing NLS from ships according to the needs of the ships, in cargo loading and unloading ports and terminals and at "ship repair ports" undertaking repairs to chemical tankers. The NLS residues resulting from the application of Annex II must be accepted without undue delay to the ship. Regulation 7 also requires that cargo unloading terminals provide arrangements to facilitate stripping of cargo tanks of ships unloading NLS at these terminals, and it prohibits draining cargo hoses and piping systems containing NLS back to the ship that unloaded the cargo. The enabling legislation for implementing MARPOL 73/78, mandates the establishment of regulations setting criteria for determining the adequacy of reception facilities of a port or terminal and procedures for certifying that the facilities for receiving residues and mixtures containing oil or NLS from oceangoing ships are adequate.

A Notice of Proposed Rulemaking was published in the September 26, 1986 issue of the *Federal Register* (51 FR 34332). A meeting open to the public was held in Washington, DC on October 31, 1986 where oral and written questions were received and discussed. The *Federal Register* published a correction on October 23, 1986 (51 FR 37607), and a correction and extension of the comment period was published in the *Federal Register* on November 10, 1986 (51 FR 40450). A total of 35 comments were received on the NPRM and considered before this rulemaking was published. These comments are discussed below.

Changes to Part 151 and Part 158 to Implement Annex II

1. A number of editorial changes were made to clarify the requirements that apply to ships under 33 CFR Part 151 and ports and terminals under Part 158. All of these changes are for clarification and do not make any substantive change to the proposed rules.

2. *General Comments*—One commenter recommended that the Coast Guard establish rules that exclude domestic trade. The Coast Guard disagrees inasmuch as MARPOL 73/78 and the Act apply to all oceangoing ships and are not limited to foreign trade.

One commenter asked for clarification of the relationship between the terminal operator and the "person in charge" of the ship with respect to the operational requirements that only apply to the ship. The operating requirements of Part 151 are clearly the responsibility of the master or person in charge of the vessel. There are no operating requirements for vessels in Part 158. The regulations assign responsibilities to the appropriate person, they do not attempt to control the relationship between the terminal operator and the vessel.

One commenter indicated that existing regulations are sufficient to regulate the movement of hazardous chemicals and recommended that the Coast Guard develop regulations only after taking into consideration: (1) The Port and Tanker Safety Act, (33 U.S.C. 1221 through 1231), (2) the Federal Water Pollution Control Act (FWPCA) (1972), as amended by the Clean Water Act (CWA), (33 U.S.C. 1321 *et seq.*) and (3) the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by Superfund Amendments and Reauthorization Act (SARA), 100 Stat. 1613 (1986). As to CERCLA and SARA, Congress recognized the potential overlap between the Act and other U.S. environmental laws administered by the Environmental Protection Agency (EPA) and required the Coast Guard to consult with the Administrator of EPA prior to issuing these regulations. MARPOL 73/78 was ratified by the United States and implementing legislation was enacted, in full awareness of existing legislation, including the first two statutes cited. The intent was to supplement those statutes. The Coast Guard considered all existing statutes affecting pollution of the marine environment in developing these regulations.

Another commenter suggested that more stringent regulations are necessary and recommended that the coastal zone of the United States be considered a special area because of the environmentally sensitive nature of the near coastal waters. The designation of "special areas" was fully considered in drafting MARPOL 73/78. New areas can not be adopted unilaterally. Publishing standards more stringent than those of Annex II would be contrary to the spirit of the convention, would put U.S. ships

at a disadvantage, and have an adverse effect on U.S. commerce.

One commenter questioned the rationale for developing the lower figure of \$3.5K per system rather than \$7.0K system cost for meeting the backpressure requirements. The rationale is fully developed in the full evaluation. The costs are based on certain assumptions about the configuration of a port or terminal and the various means available to reduce the pressure in the terminal's piping system. The Coast Guard estimated the costs will range from \$1,416 to install a diaphragm "booster" pump to \$7,079 to utilize a surge tank and pump mounted on a flatbed. Since there was no way of determining the layout of every port or terminal, the Coast Guard used the (annualized) cost of \$3,540 for one intermediately priced system in estimating the costs of these requirements.

One commenter recommended that the Coast Guard support these costs with empirical data. The regulatory evaluation discusses the costs which have been supported by empirical data from several sources including shipping industry trade associations, terminal owners and operators, independent waste haulers, the Department of Commerce and Army Corps of Engineers.

One commenter requested that the Coast Guard emphasize in the preamble of the final rule, that the lack of federal preemption authority discussed in the preamble to the NPRM was overstated. The Coast Guard agrees with the commenter that where State or local laws conflict with Federal laws in matters embraced by Federal Law, the Federal law would prevail.

Three commenters were concerned about the relationship of the EPA's Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S.C. 6901 *et seq.*), CERCLA, and the vessel and reception facility requirements and another commenter requested that the regulations be revised to include rules for the handling of hazardous waste. The authority for all of these matters has been given by Congress to the EPA. The Coast Guard recommends that those interested in this matter refer to the discussion given to it in the preamble to the Interim Final Rule on Annex I reception facilities for receiving residues and mixtures containing oil which was published in the *Federal Register* of September 9, 1985 (50 FR 36770).

One commenter suggested that the EPA and Coast Guard enter into a Memorandum of Understanding (MOU) to permit terminal operators to use their

RCRA generator numbers without the downstream liability for alleged improper disposal. The Coast Guard disagrees with the commenter over the need to take the action requested. The requirements for a generator to obtain an EPA Id number and the downstream liability for improper waste disposal imposed by CERCLA are within the jurisdiction given by Congress to the EPA which would make an MOU irrelevant.

One commenter suggested the regulation be revised so that waste disposal responsibility is coupled with financial responsibility requirements for violations of the Federal Water Pollution Control Act or CERCLA. The responsibility with respect to the disposal of wastes is not related to the financial responsibility provided by CERCLA as amended by SARA.

One commenter indicated that the information and recordkeeping requirements of the proposed rule duplicate existing RCRA information and recordkeeping requirements. The Coast Guard disagrees with the commenter. The Act mandates that the Coast Guard establish procedures whereby a person in charge of a port or terminal may request certification of the adequacy of its facilities. The information provided in Application Form B is the first step in that procedure, a step the applicant must make. The commenter would have the Coast Guard provide its own information, which would make the process much longer and delay issuance of the certificate.

Two commenters recommended republishing a corrected version of the proposed rule in the *Federal Register*. The Coast Guard disagrees with the commenters over the need to republish the entire regulations. A correction to the NPRM was published in the October 23, 1986 issue of the *Federal Register* (51 FR 37607). In addition, the correction to proposed Table 2 (now, § 151.49) in the *Federal Register* of November 10, 1986 (51 FR 40950) should have alleviated any confusion.

Two commenters recommended publishing the regulations as an Interim Final Rule with a one year comment period to gain operating experience and to identify areas needing change or clarification, while another commenter supported the implementation date of April 6, 1987. There is no advantage to publishing an Interim Final Rule. There is no guarantee that a one year period would be appropriate for further comment. If there are areas that need revision, comments may be submitted at any time and corrective action will be taken as necessary.

3. *Section 151.03 Applicability*—One commenter felt that the regulations were not intended to apply to vessels servicing the offshore industry and requested that the regulations be modified to reflect this. The Coast Guard disagrees with the commenter. The Act applies to oceangoing ships carrying NLSs and the requirements of 33 CFR Part 151 apply to each oceangoing ship carrying NLS. As to the applicability of the requirements of Title 46 CFR to vessels in the offshore industry, see the discussion elsewhere in this issue of the *Federal Register*.

One commenter recommended an exemption from the regulations for inland barges operating on a limited coastwise route. The Coast Guard agrees and added a new § 151.30 to exempt barges operating on a limited shore protected coastwise route from the requirements of Subpart C of Part 151 if the barge is constructed and certificated primarily for service on an inland route.

4. *Sections 151.05 and 158.120 Definitions. a. "Harmful substance"*—One commenter indicated that the addition of the term "harmful substance" to § 151.05 is confusing because the term "harmful material" is used in 46 CFR Part 153. The Coast Guard agrees with the commenter and has removed the definition.

b. "High viscosity NLS"—One commenter requested that when referring to "High viscosity NLS", the figure should include a centipoise (cP) reference and note that viscosity measurements are made with a rotating viscometer. The Coast Guard has chosen not to do this but has added an entry in Appendix III of 46 CFR Part 153 giving the conversion from millipascal-seconds to centipoise. See the discussion elsewhere in this issue of the *Federal Register*. Note that the conversion factor is 1, that is, the numerical value of viscosity is the same in both sets of units.

Another commenter requested that the term "high viscosity substance" be consistent with the definition adopted by the Annex II of MARPOL 73/78. The Coast Guard agrees with the commenter and has omitted the words "but does not include solidifying NLS" from the definitions of "High viscosity NLSs", "High viscosity Category B NLS", and "High viscosity Category C NLS".

c. "NLS residue"—Commenters recommended deleting from this definition the condition of the failure of NLS cargo meeting the consignee's specifications because it would potentially increase the quantity of NLS residue generated. The Coast Guard

disagrees with the need for this change. There is no requirement that the ship discharge the cargo as NLS residue to a reception facility. In 46 CFR 153.1102 (discussed elsewhere in this issue of the *Federal Register*) the Coast Guard has explicitly included returning the cargo to the shipper or discharging the NLS to another consignee among the permissible dispositions.

One commenter thought that the definition of NLS residue should not include ballast since this could create a situation where it is treated as residue without justification. The Coast Guard disagrees with the commenter because the definition only includes that ballast which is contaminated with Category A, B, C or D NLS.

One commenter thought that this definition is not consistent with the intent of the regulations applied under § 158.310 and § 158.320 because the definition includes many types of waste that are not intended to be regulated in these regulations. The Coast Guard disagrees with the commenter. This is a broad definition that uses the connective "or" and not "and"; therefore, any one of the conditions that apply can bring the situation under the definition.

d. "Oil-like substance"—One commenter felt that the term "oil-like substance" was not adequately defined. The Coast Guard disagrees with the commenter that additional clarification of this term is necessary. The Coast Guard has incorporated the list of oil-like Category C and D NLS developed by IMO which was published in proposed Table 2 (now § 151.49). This clearly states which chemicals can be carried as "oil-like". Under the unified interpretations of Regulation 14 of Annex II to MARPOL 73/78 MEPC(22)(21), the list of oil-like substances was published, and criteria were listed that will be used by IMO in deciding whether or not to add a chemical to the list of oil-like substances. As IMO adds to the list, the Coast Guard makes the necessary changes to § 151.49.

e. "Prewash"—One commenter suggested that the term "prewash" should be defined in Part 158. "Prewash" is defined and follows the definition of "Person in charge" in § 158.120 and is identical to the definition in 46 CFR 153.2.

f. "Ship"—One commenter suggested that the definition of ship should be fully defined in § 158.120 rather than referring to § 151.05(q). The Coast Guard agrees and has added the definition of "ship" and "oceangoing ship" to § 158.120.

g. "Terminal"—Four commenters recommended that the definition of

"terminal" should be modified to remove the possibility that ships will be considered a terminal. The Coast Guard disagrees with the commenters. The reception facility and terminal requirements will not generally apply to ships. However, the COTP has the authority to designate a place or facility used or intended to be used for the transfer or other handling of a hazardous material as a "port". If the COTP designates an area as a "port", the master or person in charge of a ship involved in the transfer operations could choose to accept the responsibility for obtaining a COA and making reception facilities available in this "port", which will be subject to the regulations in 33 CFR Part 158. In order to avoid further confusion the note at the end of the definition was deleted.

One commenter referred to the differences in the definitions of ports and terminals in both federal statute and international agreements and recommended adopting a narrower definition for terminals. Another commenter recommended that the definition of terminal should be modified to remove the possibility that offshore structures that receive NLS for their "exclusive use" will be considered a terminal. The Coast Guard cannot change this definition which is in the Act.

5. *Section 151.08 Denial of Entry*—One commenter requested that the Coast Guard indicate how the ship operator will know if the port or terminal has a Certificate of Adequacy. The ship would be required under § 151.43 to make an advance notice of the need for reception facilities 24 hours prior to entering the port or terminal. In response, the port or terminal will notify the master or person in charge whether or not it holds a Certificate of Adequacy and whether or not a reception facility will be made available to meet the needs of the ship. In addition, 33 U.S.C. 1905(a) requires periodic publication in the *Federal Register* of a list of ports and terminals holding valid Certificates of Adequacy.

One commenter felt that the denial of entry provisions of § 151.08 should be amended to state that the provisions do not apply to tank barges. The Coast Guard disagrees with the commenter. A ship is defined in part to mean "a vessel of any type whatsoever operating in the marine environment". The regulations in Part 151 apply to all oceangoing ships, including barges, carrying residues and mixtures containing oil in bulk and oceangoing ships, including barges, carrying Category A, B, C or D NLSs.

6. *Section 151.31 Where to find the requirements applying to ships carrying*

Category A, B, C and D NLS—Two commenters expressed concern over the lack of a mechanism to quickly add new chemicals to §§ 151.47 and 151.49 so that they may be carried on oceangoing ships. They recommended that the Coast Guard develop a procedure for shippers to ship chemicals found to meet the specifications of an NLS, but not listed in the tables. The Coast Guard agrees with the commenter that this may be confusing. In order to clarify this, a paragraph (d) was added to this section explaining that procedures for carrying NLSs not listed in §§ 151.47 and 151.49 are in 46 CFR 153.900(c).

7. *Sections 151.33 to 151.35 Certificates needed to carry Category D NLS and Category C and D oil-like NLS*—One commenter recommended that the requirements to have an International Pollution Prevention (IOPP) Certificate, Certificate of Inspection (COI), and Certificate of Compliance (COC) be modified to reflect that each cargo tank is certified to carry a particular Annex II category rather than list cargoes that each tank may carry. The Coast Guard disagrees with the commenter since the recommended approach does not recognize the differences between individual chemicals within the same category of chemicals. The equipment and operating requirements in § 151.37 and § 151.41 for each tank vary for the specific chemical being carried. In addition, if the suggestion was adopted, the certificate would have to be changed each time a different category was carried.

One commenter recommended an exemption from the requirements of §§ 151.33 and 151.35 for inland barges operating on a limited coastwise route because they do not have an IOPP Certificate. The Coast Guard agrees and has revised the § 151.03 to exempt barges operating on a limited short protected coastwise route from the requirements of Subpart C of Part 151 if the barge is constructed and certificated primarily for service on an inland route.

One commenter indicated that it is impractical to obtain an endorsement for the various chemical blends and constituents used in the drilling industry since these vary on almost a daily basis. They recommended evaluating a range of chemical blends and constituents. The Coast Guard will consider any request for an authorization under 46 CFR 153.900(c) provided sufficient data is submitted to Commandant (G-MTH) for evaluation and categorization of the material.

8. *Section 151.37 Obtaining an Attachment for NLSs to the IOPP*

Certificate Supplement and obtaining an NLS Certificate—One commenter recommended that the proposal be clarified to indicate that this subpart contains all the rules pertaining to Subchapter D tankers carrying Category C and D oil-like NLSs and Category D NLSs. This is incorrect. Section 151.31 directs the reader where to find additional requirements for the carriage of NLS cargo.

One commenter recommended that an exception to the monitor requirements in the proposed § 151.37(a)(1) be provided if the ship is incapable of being ballasted or configured to wash tanks enroute as was done for Annex I cargoes. A second commenter suggested that the Coast Guard delete the requirement that the ship have an approved monitor until specifications are developed for the monitor and, if different specifications are developed, that sufficient time be provided to allow vessels to come into compliance. A third commenter recommended the Coast Guard permit the use of existing monitors if they can be shown to monitor the oil-like NLSs carried. A fourth commenter recommended that the Coast Guard adopt some shipboard approval process for existing monitors. These requirements would not apply to oceangoing ships that are not configured to wash tanks or ballast enroute. To clarify this the Coast Guard has included an exception to § 151.37(a)(1) for ships that are not configured and are not equipped to ballast or wash cargo tanks while proceeding en route. Cargo monitor specifications presently exist in 46 CFR Part 162.050. To avoid any confusion, the Coast Guard deleted the proposed note at the end of § 151.37. The Coast Guard is preparing an NPRM that would adopt IMO Resolution A586 (1985) regarding specifications for monitors. If the proposal is adopted, the Coast Guard will permit the use of existing monitors that meet these specifications and can detect oil-like NLS cargo.

One commenter requested clarification whether or not oil product carriers with Category C products have to meet the type III hull requirements and another commenter recommended that proposed § 151.37(a) be clarified regarding the stability requirements that barges must meet. The Coast Guard agrees and has revised this section to distinguish the damage stability requirements for ships from the requirements for barges. An oceangoing barge of 150 meters or less in length carrying a Category C oil-like NLS must meet the stability requirements for type III hulls of Regulation 14(c) of Annex II

to MARPOL 73/78. An oceangoing ship of 150 meters or less in length carrying a Category C oil-like NLS must meet the stability requirements for type III hulls under 46 CFR Part 172 Subpart F except §§ 172.130 and 172.133.

One commenter requested that the Coast Guard clarify the requirements of § 151.37(b)(2) regarding the exception to the residue discharge system requirements. The Coast Guard agrees that the proposal was confusing and has corrected the reference to read 46 CFR 153.1128(b).

9. Section 151.41 Operating requirements for oceangoing ships with IOPP Certificates: Category C and D oil-like NLSs—Two commenters suggested that this section should be revised to provide an exception to barges that are not equipped with cargo monitors when they can neither ballast nor wash cargo tanks enroute. The Coast Guard disagrees with the commenters over the need to make the requested change. The Coast Guard has provided an exception to the monitor requirements in § 151.37(a)(1) for non-self-propelled barges that neither ballast nor wash cargo tanks while proceeding enroute. Therefore, paragraph (b) of § 151.41 would not apply to these barges.

10. Section 151.43 Control of discharge of NLS residues—One commenter requested clarification of the situation where the ship is not able to meet the proposed 24 hour advance notification of arrival requirements. The Coast Guard does not feel that a change in the regulations is needed. There is no prohibition against the port or terminal agreeing to receive the ship with less than 24 hours of advance notification; however, this would be a case by case decision for the port or terminal which only must make reception facilities available after 24 hours' advance notification (proposed § 158.310).

Two commenters recommended that the Coast Guard except fixed and floating drilling rigs or platforms operating under an National Pollutant Discharge Elimination Systems (NPDES) permit from the requirements of MARPOL 73/78. The Coast Guard agrees with the commenter and has added the words "Unless the ship is a fixed or floating platform operating under an NPDES permit" in § 151.43(a) in recognition of the restrictions such permits would place on any discharge.

One commenter recommended clarifying § 151.43(b)(7) by adding the words "in the tank washing," at the end. The Coast Guard agrees with the commenter and has added the words "to be used during the prewash" since it is

for that procedure the information is needed.

One commenter requested that the Coast Guard clarify the discharge restrictions that apply for NLSs in special areas. For clarification, the Coast Guard has added a new paragraph (c) which informs the reader that operations in a special area must meet 46 CFR 153.903.

11. Section 151.45 Reporting Spills of Category A, B, C and D NLS—One commenter suggested adding the name of the NLS spilled to the proposed reporting requirements of this section. The Coast Guard agrees with the commenter and has added this to the required report.

12. Sections 151.47 and 151.49 Category D NLSs and Category C and D oil-like NLSs allowed for carriage—One commenter suggested that Tables 1 and 2 should have a specific table number assigned to it. The request is confusing since the tables had specific numbers assigned to them; however, since their form fitted more properly into sections, Table 1 is now § 151.47 and Table 2 is now § 151.49.

One commenter suggested adding two Category D NLSs to § 151.49. The Coast Guard will propose to IMO, based on requests received, to add additional chemicals to the list of oil-like Category C or D and non-oil-like Category D NLS. If this proposal is not approved, the Coast Guard will evaluate the information available on a case by case basis to decide whether or not to authorize the ship to continue operating under 46 CFR 153.900(c).

One commenter suggested that § 151.49 contains more oil-like substances than those in Annex II of MARPOL 73/78 and includes some other Category B NLS cargoes. They recommended that proposed Decene, 1-Dodecene, 1-Octene, and Olefins that are listed as Category B substances be omitted. The Coast Guard published a corrected Table 2 (now, § 151.49) in the correction and extension of the comment period in the November 10, 1986 issue of the Federal Register (51 FR 40950).

One commenter requested clarification on how mixtures of NLS will be treated. The Coast Guard has a discussion on the policy concerning mixtures in the changes to 46 CFR Part 153 that appears elsewhere in this issue of the Federal Register.

13. Section 158.110 Applicability—In response to numerous comments, this section has been rewritten to exclude ports and terminals used by tank barges that carry NLS cargo that are not configured and are not equipped to

ballast or wash cargo tanks while proceeding en route. Further, the applicability regarding ship repair yards has been clarified.

Three commenters requested clarification regarding who must have the Certificate of Adequacy if a ship is transferring a regulated NLS cargo to a lightering ship or barge and another thought that lightering operations are covered by separate regulations and requested that a separate rulemaking be published if the lightering vessel is to be considered a terminal under Annex II. One commenter suggested that the lightering barge should not be considered a terminal for the purposes of Part 158 while another commenter recommended that the Coast Guard require the ship to make their own arrangements for reception facilities. The Coast Guard agrees that the practice of unloading an NLS cargo from a ship to another vessel, particularly when done outside the confines of a port, does not readily fit into commonly accepted concepts of "ports" and "terminals". The statutory definition of "terminal" which is limited to "onshore facility or offshore structure" appears to exclude lightering vessels. However, the clear intent of MARPOL 73/78 and the implementing legislation is to provide reception facilities for ships unloading NLS cargo and it is obvious that a lightering operation is unloading cargo. The vessel regulations in 46 CFR Part 153 require ships to prewash cargo tanks and transfer the contaminated tank washings to onshore reception facilities under specified conditions. Under the regulations, the means for accomplishing this are flexible.

Ships could comply with applicable prewash requirements and offload the resulting mixture of NLS residues to a lightering vessel for transfer to a shore reception facility, or apply for a waiver if the prewash mixture is to be discharged at another port or terminal. It is also possible that no reception facilities would be required if the vessel carries non-solidifying or non-high viscosity Category B or C NLS cargo and meets the efficient stripping requirements. The Coast Guard is of the opinion that no separate regulations are required. Under § 158.130, the COTP can designate the lightering area as a port, determine the availability of reception facilities, and evaluate the adequacy of whatever method is proposed for receiving the NLS residues. There is no restriction on who would be the person in charge of the designated port. The selection of the person in charge would be a decision made by representatives of the ship being offloaded, the

lightering vessel, and possibly other parties such as the person in charge of the port or terminal ultimately receiving the cargo or the person in charge of the onshore reception facility.

Parties contemplating lightering operations subject to these rules should contact the cognizant COTP as early in the planning stage as possible. The lightering regulations in § 156.210(b) say in part that no person may transfer a hazardous substance in the marine environment beyond the baseline from which the territorial sea is measured, when the cargo is destined for a port or place subject to the jurisdiction of the United States without specific approval of Commandant (G-MPS).

Three commenters requested the Coast Guard to exempt fixed or floating drilling rigs, and other platforms from the reception facility regulations in 33 CFR Part 158. The Coast Guard disagrees with the commenters over the need to take the action requested. The Act defines a fixed or floating drilling rig, or other platform as a ship. However this does not preclude the platform from being a designated port. The reception facility and terminal requirements will not normally apply to platforms (ships), however, if a platform was involved in the transfer of oil or NLSs under circumstances where reception facilities are appropriate, the COTP has the authority to designate the area as a "port". A blanket exemption from the requirements of 33 CFR Part 158 is not appropriate. If the COTP designates an area as a "port", the master or person in charge of any platform or ship involved could choose to accept the responsibility for obtaining a COA and making reception facilities available in this "port", which would be subject to the regulations in 33 CFR Part 158.

One commenter felt that it is unnecessary to require all terminals to apply for a Certificate of Adequacy and requested that terminals used in support of the offshore oil and gas activities be exempted from the regulations. In order to comply with the convention, the Coast Guard can not make such a blanket exemption from the regulations. However, an exception to the regulations in Part 158 has been provided for ports and terminals used only by ships that are operating under waivers under 46 CFR 153.491 or used only by barges that are not configured to wash tanks or ballast while proceeding en route. All other ports and terminals used by oceangoing ships carrying NLS cargo will have to apply for a Certificate of Adequacy. However, it may be possible for a particular port or terminal to demonstrate that no on site reception

facilities are actually required. One commenter felt that § 158.110 should clarify the type of barge that is regulated. The regulations in 33 CFR Part 158 apply to ports and terminals, not vessels. They apply to each port or each terminal located in the United States or subject to the jurisdiction of the United States that is used by oceangoing tankers and other oceangoing ships of 400 gross tons or more carrying oil or oily residues and oceangoing ships carrying NLS. A ship is defined in § 158.120 to mean "a vessel of any type whatsoever operating in the marine environment". The regulations therefore apply to ports and terminals used by oceangoing barges carrying oil or oily residues in bulk and oceangoing barges carrying Category A, B, C or D NLS. AS discussed above, limited exception has been provided for those ports and terminals used only by barges that can not ballast or wash tanks while proceeding enroute.

One commenter thought that the regulations should clearly state that ports and terminals handling only Category D NLSs do not have to apply for a COA. The Coast Guard disagrees with the commenter over the need to make the requested change. Taking the action recommended by the commenter would exempt ship repair yards from the requirement to make reception facilities available to meet the needs of the ship carrying Category D NLS cargo when required to wash cargo tanks while at the ship repair yard. This would cause the United States to deviate from Annex II of MARPOL 73/78. Regulation 7 of Annex II requires that ship repair yards make reception facilities available to receive all NLS residue generated incidental to the repair of the ship.

One commenter requested the Coast Guard to clarify whether facilities that dock oceangoing ships under 400 gross tons need Certificates of Adequacy. The rules for Subpart A and B of 33 CFR Part 158 apply to ports and terminals used by oceangoing tankers and other oceangoing ships of 400 gross tons or more that carry oil in bulk, while Subparts A, C and D of 33 CFR Part 158 apply to ports and terminals used by any oceangoing ships that carry NLS. Two commenters requested the Coast Guard to exempt an offshore operator's supply base from the requirement to have a COA when the base does not transfer liquids. The Coast Guard feels there is no need to take the action requested. These regulations would not apply to an offshore operator's supply base used by ships that do not transfer NLS since it would not be a port as defined in § 158.120, except by choice, or

as specifically designated by the COTP. A COTP would not designate a place or facility as a port unless it transferred or otherwise handled oil or NLS.

One commenter recommended developing a separate subpart in the regulations specifically detailing requirements of the offshore oil and gas industry including offshore supply vessels and associated shore bases. The Coast Guard disagrees with the commenter over the need to make the recommended change. This approach would be confusing because the regulations in Title 33 CFR and Title 46 CFR are organized by subject matter and not by industry.

14. *Section 158.130 Delegations*—One commenter felt that § 158.130(f) leaves open the possibility that a ship carrying a Category A NLS will be able to enter a port having only a Certificate of Adequacy for oil. They recommended rewriting this section to read "Adequacy for oil and for each NLS cargo or cargo residue the ship carries." The Coast Guard disagrees with the proposed change. This section deals with the delegation of authority to the COTP. Application Form B will be attached to and becomes part of the Certificate of Adequacy for ports and terminals that service ships carrying NLS cargo. Form B lists the NLS cargoes that the terminal will handle. The COTP will deny entry of ships carrying NLS cargo to those ports and terminals under § 158.110 that do not hold a Certificate of Adequacy covering the category of cargo carried.

15. *Section 158.140 Applying for a Certificate of Adequacy*—Numerous commenters expressed some concern about the organization of the Form B and suggested that the Coast Guard clarify whether a particular section applied to the reception facility or to port and terminal equipment and operating requirements. In order to avoid confusion, the Coast Guard has revised Form B into three distinct sections. Section 3 requires information on the type of NLS cargo handled; section 4 requires information on the port and terminal; and section 5 requires information on the reception facility. A copy of application Form B is attached as Appendix I to the preamble of this final rule and will be available from the COTP.

One commenter requested clarification regarding the date the application for the Certificate of Adequacy must be submitted. Ports and terminals currently handling NLS should submit their COA application as soon as possible. Others should submit their application as soon as information is available. After the effective date of these regulations, the

COTP will deny vessels entry to ports and terminals not holding a COA.

One commenter requested that section 2.A.(5) of application Form B should designate the onsite or offsite location and type of disposal planned for NLS prewash water. The Coast Guard disagrees with the commenter. Taking the action requested by the commenter will impose redundant information collection and recordkeeping requirements on the public since this information is included on EPA's hazardous waste manifest.

One commenter recommended that section 3 titled "Waste Handled at the Port or Terminal" be revised to read "NLS Cargo Handled at the Port or Terminal". The Coast Guard agrees with the commenter and has revised the title. Another commenter suggested that this section 3 should be filled out generically as to the type of NLS cargo the terminal will handle. They thought that when a terminal desired to handle a new NLS, the COA application will have to be amended and the 12 month history will have no bearing on the reception facility capacity. The Coast Guard disagrees with the commenter. The name of the NLS cargo is necessary to determine which cargoes received from oceangoing ships will require a prewash of cargo tanks and discharge to a reception facility. This information is used to determine the required reception facility capacity. If the NLS cargoes change, the person in charge of the port or terminal will be required under § 158.165 to notify the COTP of the change.

One commenter recommended that proposed section 4 be revised by replacing the word "residue" with the words "during cargo tank stripping" because this section applies to cargo tank stripping operations. The Coast Guard agrees and has revised this section by replacing the words "noxious liquid substance residue" with the words "NLS cargo during cargo tank stripping operations". Two commenters recommended revising section 4 by substituting the words "back pressure at the ships manifold" for "pressure at the manifold". The Coast Guard agrees and has made the change since this clarifies the conditions under which the backpressure requirements must be met.

Several commenters requested that the reception facility capacities be clarified to indicate that they apply to NLS prewash water. The Coast Guard agrees with the comments and has revised these provisions. One commenter requested that the provisions concerning the receipt of NLS residues within 10 hours be revised by deleting the word "residues" and substitute "during efficient stripping". The Coast

Guard disagrees with the commenter since this provision applies to reception of NLS residues resulting from prewashes, not the stripping operation.

16. *Section 158.160 Issuance and Termination of a Certificate of Adequacy*—One commenter recommended that the Coast Guard revise the regulation to limit the length of time that the Certificate of Adequacy will be valid and add a provision for periodic inspection at an interval of not more than two years. The Coast Guard disagrees with the commenter over the need to make the recommended change. Masters and persons in charge of oceangoing ships will notify the COTP if reception facilities for residues and mixtures containing oil are thought to be inadequate. The COTP has continuing authority to inspect facilities and investigate complaints. If needed corrective action is not taken, the COTP would initiate suspension and revocation procedures. Further, the Coast Guard conducts a facility inspection program whereby ports and terminals including reception facilities are inspected on a regular basis.

17. *Section 158.163 Reception Facility Operations*—One commenter recommended rewording § 158.163(a) to distinguish the responsibilities of the person in charge of the port or terminal from the person in charge of the reception facility. The COTP will make this distinction and initiate civil penalty action against either person as appropriate. The determination of responsibility must be made on a case by case basis because of the variety of different situations that could arise.

18. *Section 158.170 Grounds for suspension*—One commenter recommended that the grounds for suspension of a Certificate of Adequacy should be strengthened, that reference to deficiencies be defined, and that a suspension be imposed if the reception facility fails to comply with applicable regulations or is otherwise deemed inadequate by the COTP. A second commenter recommended adding the phrase "Under normal conditions" to the beginning of § 158.310(a)(5) and § 158.310(a)(6) because there are some instances when reception facilities are not available within 24 hours or capable of receiving NLS residue from the prewash within 10 hours after the start of the transfer of NLS residue. A third commenter recommended adding exceptions for legitimate causes for delay beyond the control of the reception facility. The Coast Guard disagrees with the commenters over the need to make the changes requested. Any substantial deviation from the

criteria of adequacy that renders the port or terminal equipment or reception facility inadequate can result in suspension until the problem is corrected. The COTP will consider all the evidence available on a case by case basis prior to initiating civil penalty or suspension or revocation proceedings against the Certificate of Adequacy.

19. Sections 158.200 to 158.230 Subpart B—Criteria for Reception facilities: Residues and mixtures containing oil—

One commenter recommended that § 158.200(a)(3) be revised to indicate that the reception facility should be prepared to receive oily wastes and mixtures from a ship at the estimated time of arrival, provided that notification is given at least 24 hours prior to arrival. The Coast Guard disagrees with the commenter. Ships will not normally need reception facilities until after unloading NLS cargo and completing the prewash. The estimated time of arrival is not as definite as 24 hour advance notice of the need for reception facilities. One commenter felt that the revisions to §§ 158.210 through 158.230 are not relevant for the purposes of Annex II requirements and requested that these changes be made part of a separate rulemaking concerning Annex I requirements. The Coast Guard disagrees with the commenter. The changes that were proposed are editorial in nature because of a change in the definition of "daily vessel average". Since the Annex I and Annex II requirements are interdependent, the regulations were published together.

20. Section 158.310 Reception facilities: General—Three commenters recommended that in the interests of operational safety that paragraph (a)(6) of this section should apply to the discharge of prewash residues. The Coast Guard agrees with the commenters and added the words "of NLS residue" between the words "transfer" and "begins" to clarify that the 10 hour time requirement refers to the time after the transfer of NLS residue begins. Another commenter requested clarification regarding whether or not terminals may wait until all cargo is unloaded before providing reception facilities. The Coast Guard disagrees with the commenter over the need to make the clarification. The regulation will not prohibit ports and terminals from waiting until all NLS cargo is offloaded before making reception facilities available. In some situations, ships may not be able to meet the standards for Procedures and Arrangements unless the reception facility is available when the prewash

operations are being conducted. Under these circumstances, the requirements of § 158.310 must be met.

One commenter pointed out that § 158.310(a)(6) will cause undue delay to ships. The Coast Guard disagrees with the commenter. The regulations prescribe the maximum amount of time that the ship and reception facility will have to complete the transfer of NLS prewash residue to a reception facility. There is no restriction on the two parties agreeing to complete the transfer in a shorter time frame. However, requiring a faster time for completion of the transfer of NLS residue to a reception facility may preclude the use of tank trucks and require an unnecessary capital expenditure. If the Coast Guard finds that vessels are being unduly delayed because of this requirement, the Coast Guard will revise the regulations.

One commenter felt that the prewash will generate as much as 90 cubic meters of NLS prewash residue per hour and wanted to know whether the line or hose will be properly sized. The Coast Guard has published performance standards for reception facilities to receive NLS residue in the time frame specified. Usually, prewash residue will be pumped from the ship to the reception facility using cargo pumps and the reception facility must be capable of receiving the quantities of NLS residue generated in the time frame specified. In order to do so, the reception facilities must properly size the line or hose to match the pumping capacity of the ship that will discharge NLS residue.

One commenter requested the Coast Guard to clarify the grounds for which the terminal may refuse to accept wash water contaminated with cleaning agents. There are prohibitions on the use of cleaning agents unless specifically authorized by the ships Procedures and Arrangements manual. Under § 151.43, the master or person in charge of the ship will identify the cleaning agents to be used during the prewash when the 24 hour advance notice is given. If the reception facility is unable to receive these chemicals, the reception facility could refuse to take the material. However, the port or terminal will have to make other reception facilities available to meet the needs of the ship, or advise the ship that it can not provide reception facilities and refuse to accept the ship.

One commenter recommended that the Coast Guard revise the regulations to afford the port or terminal some protection against receiving NLS residues that are contaminated with other materials. The Coast Guard disagrees with the commenter that a

regulatory requirement will be in accordance with the Act. This and other commercial aspects of the reception facility transactions that were commented on have been discussed in the preamble of the Interim Final Rule on Annex I reception facilities for residues and mixtures containing oil, published in the Federal Register of September 9, 1985 (50 FR 36770). The reader is referred to the preamble of the Interim Final Rule for a discussion of this issue since the commercial aspects of the reception facility requirements for NLS residues are the same.

21. Section 158.320 Reception Facilities: Capacity—One commenter requested that paragraph (a) be revised to read "each port and each terminal that is used by ships that unload Category A, B, or C NLS cargo" while another commenter requested that paragraph (a) be amended to read "if it is used by ships that unload only Category B or C NLS cargo". The Coast Guard agrees with the commenters over the need to clarify the capacity requirements. The Coast Guard rewrote the reception facility requirements to clarify that the regulations apply to ports and terminals that are used by ships that carry Category A, B, and C NLS cargo and unload these NLS cargoes at the port or terminal. At the same time, the capacity requirements for ship repair yards include all NLS residue generated incident to the repair of the ship. To clarify this, the Coast Guard has added a new paragraph (c) to § 158.320 to distinguish the capacity requirements for ship repair yards from the capacity requirements for other ports and terminals.

The Form B printed in the NPRM indicated that the reception facility must meet daily capacity requirements. To clarify that the reception facility capacity must be available daily, the words "each day the port or terminal is in operation" were added to the capacity criteria in this section. One commenter suggested that an upper limit be placed on the volume of prewash water that must be accepted by terminal operators. The Coast Guard disagrees with the comment. The Coast Guard has established minimum criteria that reception facilities must be capable of meeting based on anticipated normal operating requirements. The Coast Guard will certify the adequacy of reception facilities and issue a Certificate of Adequacy if the requirements of Subpart C are met. Port and terminal operators and vessel agents remain responsible for scheduling vessel movements and cargo to be handled. Under the advance notice

of arrival requirements of § 151.43, the master or person in charge must notify the port or terminal of the amount of NLS residue to be generated during the prewash. The port or terminal will be expected to notify the ship if sufficient reception facility capacity is not available to meet the needs of the ship within the criteria specified. Nothing precludes arrangements exceeding these criteria that are acceptable to the parties involved, however, absent consensual agreements, if the prewash starts and the reception facility has insufficient capacity to take the anticipated volume of NLS residue, the COTP may consider this grounds for suspension or revocation of the Certificate of Adequacy.

One commenter recommended reducing the capacity requirements because they require excess capacity and will require significant expenditure of capital funds. The Coast Guard disagrees with the commenter. The Coast Guard is adopting conservative capacity criteria and has no evidence to indicate that the commenters' conclusions are valid. Further, the Coast Guard conducted a survey of available reception facilities and found that there are adequate mobile reception facilities to serve all ports, so a significant expenditure of capital funds will not be necessary.

22. Section 158.330 Port and Terminal: Equipment—Two commenters suggested that it is unnecessary to make arrangements for the stripping of all cargoes since ships are only required to meet the stripping standards for Category B or C NLS cargo. They recommended adding the words "Category B or C" between the words "receiving" and "NLS" in the first sentence of paragraph (a). The Coast Guard agrees with the commenter and has made the change requested. Cargo tanks containing Category A NLS must be prewashed and those containing residues of Category D NLS do not have to be stripped.

One commenter suggested that a new paragraph should be added which specifies the time required to complete the efficient stripping operation, while another commenter suggested that the regulations be clarified to indicate that the efficient stripping operation of § 158.330(a) is not also subject to the ten hour requirement for prewash residues in § 158.310(a)(6). These regulations do not specify a time limit for stripping operations, only equipment requirements to facilitate stripping. The 10 hour transfer time in § 158.310(a)(6) only applies to the receipt of NLS residues generated during a prewash. To

clarify this, the Coast Guard has added the word "cargo" between "NLS" and "from" in § 158.330(a).

Three commenters requested clarification of the backpressure requirements. The Coast Guard disagrees with the need to further clarify these requirements. Figure 1 of this preamble shows the variables that must be considered in calculating the backpressure in the shore piping. Backpressure consists of the sum of the static head pressure due to liquid in the shore cargo tanks, the pressure drop in the terminals piping system due to friction caused by the ship pumping NLS cargo into terminal piping at the flow rate specified, and static head pressure due to change in the elevation between the ships manifold and the shore tank into which the NLS cargo is being pumped.

One commenter recommended inserting the words "above the static pressure on the line before stripping begins" after the word pressure. A second commenter recommended that the regulations be revised to allow terminals to operate at higher flow rates and a third commenter recommended the terminal be allowed to operate at higher backpressures. A fourth commenter requested that the approval process should be clearly outlined as to the procedures followed and the information required to operate at higher backpressures. The Coast Guard disagrees with the commenters. Taking the action recommended by the first commenter would not be consistent with Regulation 7 of Annex II to MARPOL 73/78 because this may substantially increase the pressure that ships will have to pump against during the last stages of cargo unloading. Nothing precludes operating at higher flow rates provided the specified backpressure is met. The procedures outlined in § 158.150 allow a port or terminal to submit a waiver to operate at higher backpressures. The Coast Guard will consider a waiver if evidence is submitted which demonstrates that the ship has passed the stripping tests while pumping at flow rates and against the backpressure requested in the waiver by the port or terminal.

One commenter suggested that § 158.330(b) should state that the lists of equipment and procedures necessary for receiving NLS can be described in the terminal's operations manual so that the terminal will not be burdened with more than one document dedicated to dock operations and transfers. The Coast Guard agrees with the commenter and has indicated that the instruction manual may be incorporated into the

port's or terminal's operations manual required under § 154.300.

25. Section 158.400 Draining cargo area and piping systems—One commenter felt that the paragraph should state "the terminal person in charge". The Coast Guard disagrees with the commenter. Since these requirements only apply to NLS cargo, it will be redundant to refer to the terminal person in charge because cargo handling requirements do not apply to the reception facility which handles only residues. One commenter felt that this section should be revised by adding the words "back into the ship's tank" at the end of the last sentence since this will permit the terminal to drain lines back to a temporary storage tank placed on the vessel. The Coast Guard disagrees with the need to make the requested change. Taking the action requested by the commenter would be contrary to the intent of Annex II which prohibits the draining of cargo hoses and piping systems back to the ship, whether it be to the cargo tank or other location.

Regulatory Evaluation

This proposal is considered by the Coast Guard to be non-significant under DOT regulatory policies and procedures (44 FR 11034; February 26, 1979) and non-major under Executive Order 12291. A final regulatory evaluation has been prepared and placed in the rulemaking docket. Copies of the evaluation may be obtained as indicated under "FOR FURTHER INFORMATION CONTACT" and may be inspected or copied as indicated under ADDRESSES. The projected costs are summarized as follows:

1. Costs to the Private Sector

a. Administrative costs associated with preparing the application for a Certificate of Adequacy under 33 CFR Part 158, completing the cargo record book under 46 CFR Part 153, and applying for certificates required to carry NLS cargo under 33 CFR Part 151 and 46 CFR Parts 151 and 153.

b. Equipment and construction costs for ports and terminals to meet Subparts C and D under 33 CFR Part 158.

c. Equipment, operating and disposal costs for ships to meet 33 CFR Part 151 and 46 CFR Parts 151 and 153.

2. Costs to the Federal Government

a. Administrative costs for processing applications and issuing Certificates of Adequacy.

b. Personnel costs for enforcement.

The costs of alterations to existing equipment and increased daily operating costs have been evaluated. The total capital costs for installation of

equipment to facilitate efficient stripping are approximately \$12 million. The annualized costs of the backpressure requirements could be as high as \$7,081,570 (1985 dollars), assuming that each port or terminal requires the most expensive type of system and each port or terminal will require five of these systems. A more realistic estimate is that 200 ports and terminals will require an average of 3 intermediately priced systems costing approximately \$3,540 (annualized). The total anticipated annualized costs for ports and terminals is \$2,195,255. Ports and terminals will not incur capital costs for reception facilities but will incur administrative costs to apply for certificates of adequacy in the amount of \$23,405. Coast Guard costs, which include the administrative time to process applications for Certificates of Adequacy and personnel costs to conduct inspections to ensure compliance with the regulations amount to \$47,850.

The costs to ships as a result of adopting the provisions of Annex II to MARPOL 73/78 include administrative costs for making entries in the cargo record book, and applying for certificates required to carry NLS cargo, equipment costs for ships to meet the efficient stripping requirements, discharge limitations at sea, and operating costs for ships to prewash cargo tanks and discharge the tank washing residues to a reception facility. These costs as well as the information collection costs of §§ 151.33 to 151.37 proposed in this notice are included in the costs discussed in the preamble of CGD 81-101.

Economic benefits could not be accurately quantified. However these regulations are considered to be the minimum necessary to comply with the obligations of the United States under MARPOL 73/78. The proposed regulations are part of the overall scheme to reduce accidental and intentional damage to the marine environment.

The port and terminal equipment requirements permit ships to efficiently strip cargo tanks and increase the amount of cargo recovered as product. Ships will not need to wash tanks as long and this should reduce the need to discharge wastes into the ocean or discharge wastes to a shore reception facility. Due to the variety of NLS carried and the uncertainty as to the damage these products can cause to the marine environment, no dollar value can be assigned to the effect of the reduced pollution anticipated. At the same time, these regulations will allow ports and

terminals to minimize disruption of trade and limit involvement in the management of hazardous wastes. Prewashes will not be required in most cases where cargo tanks can be efficiently stripped. This will facilitate compliance with the discharge restrictions imposed elsewhere in CGD 81-101 on vessel operations and reduce the need to dispose of wastes ashore because there will be fewer required prewashes.

The benefits of the reception facility requirements will be to prevent undue delay to oceangoing ships and to minimize the costs to ports and terminals of reduced berth availability. These reception facility regulations will affect the locations where NLS residues are received by reception facilities. If left unregulated, ships would not be able to discharge NLS residue at all ports and terminals because reception facilities would not be readily available. Further, in those ports and terminals where reception facilities were available, the demand for reception facilities would exceed the supply. This will drive up the costs of disposal, contribute to the delay of vessels, and adversely affect compliance with the discharge restrictions imposed on vessels. The Coast Guard projects that oceangoing ships will need to use reception facilities approximately 200 times annually. At \$1,000 an hour, the delay to ships awaiting reception facilities could result in lost revenue for ship owners or operators as well as port and terminal operators. However, the capacity requirement, transfer time requirement, and requirement to make arrangements with reception facilities prior to applying for a Certificate of Adequacy should hold delays to a minimum. The actual cost of this regulation will represent a small fraction of revenue to ports and terminals and will have no impact on either domestic or international trade.

Regulatory Flexibility Act

In accordance with the Regulatory Flexibility Act, a regulatory flexibility analysis which discusses the impact of the final rule on small entities has been made part of the Final Regulatory Evaluation. The Coast Guard has adopted the Small Business Administration's (SBA) definition of "small business" for SBA loans to concerns engaging in transportation and warehousing (13 CFR 121.3-10(f)). Under this definition, a concern is considered small if its annual receipts do not exceed \$1.5 million. The Coast Guard did not receive any comments on the number of terminals or ports affected by the proposed regulations that are

considered small entities. The volume of cargo handled is not an accurate criterion because of the variety of business arrangements of ports and terminals and the different chemicals they handle. Some small ports and terminals are affiliated with large corporations having a substantial monetary interest in the cargo while others are independent contractors for wharfage and warehousing. The Coast Guard, recognizing a potential differential cost impact on small terminals, will allow ports and terminals to apply for Certificates of Adequacy as a group, thus reducing the administrative burden on individual operators. Furthermore, the cost for ports and terminals to make arrangements for reception facilities will be proportionate to the number of ships which are handled at the port or terminal that are required to prewash tanks and discharge the residues to a reception facility. The applicant need apply only once for a Certificate of Adequacy unless it is suspended or revoked.

The costs of this regulation on any individual small firm will be low because a small facility will require the installation of less equipment to facilitate efficient stripping. The total costs on small firms will be low because it is anticipated that few small entities will be affected. The small business impact of the regulations in §§ 151.31 to 151.45 proposed in this notice is discussed in the preamble of CGD 81-101, and has also been found to be minimal. Therefore the Coast Guard certifies that the final rule will not have a significant economic impact on a substantial number of small entities.

Paperwork Reduction Act

This final rule adopts the information collection requirements in §§ 151.43, 158.140, 158.150, 158.165, and 158.190. Revisions have been approved by the Office of Management and Budget (OMB) for the proposed requirements (which have been assigned RCS/OMB numbers 2115-0543 and 2115-0544).

Environmental Impact

Under MARPOL 73/78, the Act, and final regulations published elsewhere in this Federal Register (CGD 81-101), oceangoing ships carrying NLS are severely limited in discharging NLS residue into the sea. This is accomplished by limiting the amount of cargo residues that remain in the tank upon completion of cargo unloading and by requiring the prewashing of tanks and discharge of the tank washings to a reception facility on shore. The port and

terminal equipment requirements will facilitate efficient stripping and help reduce the generation of NLS residue and the type and volume of waste delivered to reception facilities.

A final environmental assessment and a finding of no significant impact have been prepared and are available as detailed under "ADDRESSES" above. The environmental impact of the regulations in §§ 151.31 to 151.45 proposed in this notice is discussed in the preamble to CGD 81-101. Appendix I—Mandatory Application Form B and Instructions.

Application for a Reception Facility Certificate of Adequacy for Noxious Liquid Substance (NLS) Residues and Mixtures Containing NLS Residues

1. *General.* The United States, as a Party to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended (MARPOL 73/78), is required by Annex II and the Act to Prevent Pollution from Ships (33 U.S.C. 1901) to issue certificates to terminals or ports verifying they have adequate reception facilities to receive NLS residues and mixtures containing NLS residues from ships. Regulations implementing the United States waste reception facility program are in Part 158 of Title 33 Code of Federal Regulations.

2. The Certificate of Adequacy (COA) remains valid until suspended or revoked by the COTP.

3. Upon revocation, a Certificate of Adequacy shall be returned to the issuing U.S. Coast Guard Captain of the Port (COTP) within 5 days after the revocation becomes effective.

4. The Application, as submitted, shall be attached to and become a part of the Certificate of Adequacy upon issuance.

5. A copy of the Certificate of Adequacy with the Application attached shall be available at each port and terminal to which it applies. Persons in charge of a port shall ensure that terminals who are members of the port receive a copy of the certificate of adequacy and all attachments. The Certificate of Adequacy and all attachments shall be available for inspection by Coast Guard personnel and the master, person in charge, or agent of an oceangoing ship using or intending to use the reception facility.

6. The person in charge identified in the Application shall notify the U.S. Coast Guard Captain of the Port (COTP) in writing within 10 days after any of the reception facility information supplied in sections 2, 5.A., or 5.C. of Application Form B changes. The person in charge

shall notify the COTP in writing within 30 days after any information supplied in sections 1., 3., 4., 5.B., 5.D., 5.E., 5.F., or 5.G. of Form B changes.

7. *Civil Penalties.* A person who, after notice and an opportunity for a hearing, is found:

a. To have made a false, fictitious or fraudulent statement or representation in any matter in which a statement or representation is required to be made under the Act to Prevent Pollution from Ships, or the regulations thereunder, shall be liable to the United States for a civil penalty, not to exceed \$5,000 for each statement or representation; or

b. To have violated the Act to Prevent Pollution From Ships, or the regulations issued thereunder, shall be liable to the United States for a civil penalty, not to exceed \$25,000 for each violation.

Instructions

Application for a Reception Facility Certificate of Adequacy for Residues and Mixtures Containing Noxious Liquid Substances (NLS) Residues

Form B

The following instructions for individual line items are provided to assist in completing the Application for a Certificate of Adequacy (COA). If you have any questions or need assistance in completing the Application, please contact the U.S. Coast Guard Captain of the Port (COTP) for your area. A list of definitions, which you may find helpful in completing the Application, is in Title 33 Code of Federal Regulations Part 158 (33 CFR Part 158).

1.A. Indicate terminal if you are applying as a single terminal or indicate port if you are applying as a group of terminals. Do not mark "COTP Designated Port". COTP designation of a facility or an area as a port is for unusual situations. If you have a question as to whether COTP designation as a port applies to your situation, contact the COTP for your area.

1.C.(1) For a terminal enter the company or corporation name. For a port enter the company, corporation, port authority, or organization by which the group of terminals is known.

1.C.(3) Enter the name of a person authorized to act in behalf of the terminal or port.

1.C.(5) For a terminal enter the company or corporation name. For a port enter the company, corporation, port authority, or organization of which the person in charge is a member.

1.D.(1) Those applying as terminals do not have to complete this section, since the information is the same as in 1.C. Ports are to provide this information for each of the terminals indicated in 1.B. If more room is needed for additional terminals, attach a separate sheet completed with the same information required in 1.D.

2.A. Enter the company or corporation name of the reception facility.

2.E. Check as many of the types of reception facilities as may be used.

3.A. through 3.F. Check the appropriate boxes that apply for cargoes handled at the Port or Terminal during the last 12 months. If 3.A., 3.B., or 3.C., is checked, indicate the specific NLS handled at the port on a separate attached sheet of paper. Applicable terminals and ports may alternatively check the applicable cargoes on the attached optional COTP NLS Cargo list. If you have any questions concerning cargoes not listed or the classification of any cargo, contact Commandant U.S. Coast Guard (G-MTH), Washington DC at (202) 267-1217.

4. Terminals or ports which checked boxes B, C, D or E in section 3 must complete section 4.

5.A. Terminals or ports which checked line items 3.A., 3.B., or 3.C. must complete this line item. Enter the capacity of the Reception Facility to handle the specified wastes in Cubic Meters. This may include third party contracted tank barges, tank trucks, etc. (NOTE: if using CG Optional Worksheet enter value as calculated on line "V".) Terminals or Ports which checked only line items 3.D., and 3.E. should enter "N/A".

5.B. Terminals or ports which checked line items 3.A., 3.B., or 3.C. must complete this line item. Enter value in cubic meters from your calculations or as calculated on Coast Guard Optional Worksheet line "T" for terminals or ports, and line "U" for ship repair yards. The value entered must meet the requirements detailed in 33 CFR 158.320.

Terminals or Ports which checked only line items 3.D., 3.E. and 3.F. should enter "N/A".

5.C. Indicate whether the Reception Facility can receive those residues resulting from prewashes required by 46 CFR 153.1120 within 10 hours after the beginning of the transfer of these residues begins.

5.G. Only ship repair yards complete this line item.

BILLING CODE 4910-14-M

FORM B

OMB No. Approved 2115-0543
Exp. Date 2/28/91APPLICATION FOR A RECEPTION FACILITY CERTIFICATE OF ADEQUACY
FOR NOXIOUS LIQUID SUBSTANCE (NLS) RESIDUES
AND
MIXTURES CONTAINING NLS RESIDUES

1. PARTICULARS OF TERMINAL OR PORT

A. APPLYING AS: (CHECK ONE) ☐ Terminal ☐ Port ☐ COTP Designated Port ☐ Ship Repair Yard

B. NUMBER OF TERMINALS TO WHICH THIS APPLICATION APPLIES: _____

C. TERMINAL/PORT INFORMATION:

(1) NAME OF TERMINAL/PORT _____

(2) ADDRESS OF TERMINAL/PORT _____

_____(3) NAME OF TERMINAL/PORT
PERSON IN CHARGE _____

(4) TITLE/POSITION _____

(5) ORGANIZATION _____

(6) OFFICE PHONE NUMBER () _____

(7) TELEX NUMBER _____

D. INDIVIDUAL TERMINAL INFORMATION: If applying as a port, list the information indicated for each terminal in the port. If more space is needed, continue on a separate sheet of paper and attach to the back of the application. The signature of the person in charge of the terminal acknowledges that the terminal agrees and volunteers to being considered as a member of the port, described in section 1, for purposes of these reception facilities. Complete the terminal name, location, etc. below.

(1) NAME OF TERMINAL _____

(a) ADDRESS OF TERMINAL _____

(b) NAME /TITLE PERSON IN CHARGE _____

(c) OFFICE PHONE NUMBER () _____

(d) SIGNATURE OF TERMINAL
PERSON IN CHARGE _____

(2) NAME OF TERMINAL _____

(a) ADDRESS OF TERMINAL _____

(b) NAME /TITLE PERSON IN CHARGE _____

(c) OFFICE PHONE NUMBER () _____

(d) SIGNATURE OF TERMINAL
PERSON IN CHARGE _____

2. PARTICULARS OF RECEPTION FACILITY: Enter information for each reception facility used by the terminal/port. If necessary, continue on a separate sheet and attach to the back of the application.

A. NAME OF RECEPTION FACILITY _____

B. ADDRESS _____

REVERSE OF CG-5401B (2/87)

C. NAME AND TITLE OF PERSON IN CHARGE _____

D. OFFICE PHONE NUMBER OF PERSON IN CHARGE () _____

E. TYPE OF RECEPTION FACILITY: CHECK THOSE THAT APPLY.

☐ FIXED: ☐ MOBILE: ☐ TANK TRUCK: ☐ TANK BARGE: ☐ OTHER:

(Describe other) _____

3. TYPE OF NLS CARGO OR RESIDUES UNLOADED AT THE TERMINAL OR PORT DURING THE LAST 12 MONTHS: Check the boxes that apply. If 3.A., 3.B., or 3.C. is checked, indicate the specific NLS handled on an attached sheet or check the appropriate cargoes on the attached COTP NLS cargo list.

- ☐ A. Category A
☐ B. Category B solidifying or high viscosity
☐ C. Category C solidifying or high viscosity
☐ D. Category B non-solidifying or non-high viscosity
☐ E. Category C non-solidifying or non-high viscosity
☐ F. Category D

4. TERMINAL AND PORT REQUIREMENTS: Only complete this section if line items 3.B., 3.C., 3.D., or 3.E. are checked.

- A. WILL THE PORT OR TERMINAL BE CAPABLE OF RECEIVING NLS CARGO DURING TANK STRIPPING OPERATIONS FROM SHIPS AT AN INSTANTANEOUS FLOW RATE OF 6 CUBIC METERS (158.4 GALLONS) PER HOUR WITHOUT THE BACK PRESSURE EXCEEDING 101.6 kPa/sec (14.7 pounds per square inch gauge) AT THE POINT WHERE THE SHORE CONNECTION MEETS THE SHIP'S MANIFOLD? _____
- B. WILL THE INSTRUCTION MANUAL THAT LISTS THE EQUIPMENT AND PROCEDURES REQUIRED BY LINE ITEM 4.A. BE AVAILABLE AT THE TERMINAL/PORT? _____

5. RECEPTION FACILITY REQUIREMENTS: Only complete this section if line items 3.A., 3.B., or 3.C. are checked. For line items 5.A. and 5.B. enter either the capacity or "N/A." For line items 5.C. through 5.G. enter either "YES," "NO," or "N/A" (if entering "NO" submit a waiver request in accordance with 33 CFR 158.150 on a separate attached sheet).

- A. ESTIMATED DAILY CAPACITY OF RECEPTION FACILITY TO RECEIVE NLS RESIDUES RESULTING FROM PREWASH OPERATIONS: _____ (CUBIC METERS)
- B. ESTIMATED DAILY CAPACITY REQUIREMENT OF THE TERMINAL/PORT TO RECEIVE NLS RESIDUES RESULTING FROM PREWASH OPERATIONS: _____ (CUBIC METERS)
- C. CAN THE RECEPTION FACILITY RECEIVE ALL NLS RESIDUES RESULTING FROM PREWASH OPERATIONS FROM SHIPS WITHIN 10 HOURS AFTER NLS RESIDUE TRANSFER BEGINS? _____
- D. WILL THE RECEPTION FACILITIES FOR NLS RESIDUES BE PROVIDED WITHIN 24 HOURS AFTER NOTIFICATION BY A VESSEL INDICATING THE NEED FOR RECEPTION FACILITIES? _____
- E. WILL RECEPTION FACILITIES BE PROVIDED AT THE UNLOADING TERMINAL/PORT? _____
- F. DOES THE RECEPTION FACILITY HOLD EACH FEDERAL, STATE, AND LOCAL PERMIT AND LICENSE REQUIRED BY ENVIRONMENTAL LAWS AND REGULATIONS CONCERNING NLS RESIDUES? _____
- G. CAN THE RECEPTION FACILITY RECEIVE ALL NLS RESIDUES PRIOR TO THE SHIP LEAVING THE SHIP REPAIR YARD? _____

CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION PROVIDED IN THIS APPLICATION FOR A WASTE RECEPTION FACILITY CERTIFICATE OF ADEQUACY FOR RECEPTION FACILITIES RECEIVING NOXIOUS LIQUID SUBSTANCE (NLS) RESIDUES IS COMPLETE, TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

SIGNATURE OF TERMINAL/PORT PERSON IN CHARGE _____

PRINTED OR TYPED NAME OF PERSON IN CHARGE _____

DATE SIGNED _____

COTP NLS CARGO LIST

1 MARCH 1987

CATEGORY A NLS
SOLIDIFYINGCATEGORY A
NON-SOLIDIFYINGCATEGORY B SOLIDIFYING
AND HIGH VISCOSITY NLSCATEGORY C SOLIDIFYING
AND HIGH VISCOSITY NLS

Carbolic oil
Chlorotoluenes (mixed isomers)
Cresols, mixed isomers
2,4-Dichlorophenol
Diphenyl*
Diphenyl/Diphenyl oxide mixtures*
Diphenyl ether
o-Ethylphenol*
Naphthalene (molten)
Phosphorus, yellow or white
OTHERS

Acetone cyanohydrin
Anthracene oil* (coal tar fraction)
Butyl benzenes*
Butyl phenyl phthalate
Calcium bromide/Zinc bromide*
mixtures solution
Calcium naphthenate in mineral oil
4-Chloro-2-methylphenoxyacetic*
acid, dimethylamine salt solution
o-Chlorotoluene
Coal tar*
Creosote (wood)
Iso + n-Decyl acrylate
Dibutyl phthalate
2,4-Dichlorophenoxyacetic acid,
diethanolamine salt solution
2,4-Dichlorophenoxyacetic acid,
dimethylamine salt solution*
2,4-Dichlorophenoxyacetic acid,
dimethylamine salt (70% or less)
solution
2,4-Dichlorophenoxyacetic acid,
trisopropanolamine salt solution
Diisopropylbenzene (all isomers)
Diphenyl oxide/Diphenyl phenyl
ether mixture
Dodecylphenol
alpha-Methylstyrene
Motor fuel anti-knock compounds
Nonylphenol
Pine oil*
Tricresyl phosphate
(containing less than 1%
ortho-isomer)
Tricresyl phosphate
(containing 1% or more
ortho-isomer)
Triethylbenzene
Triphenyl phosphate
Vinyl toluene
OTHERS

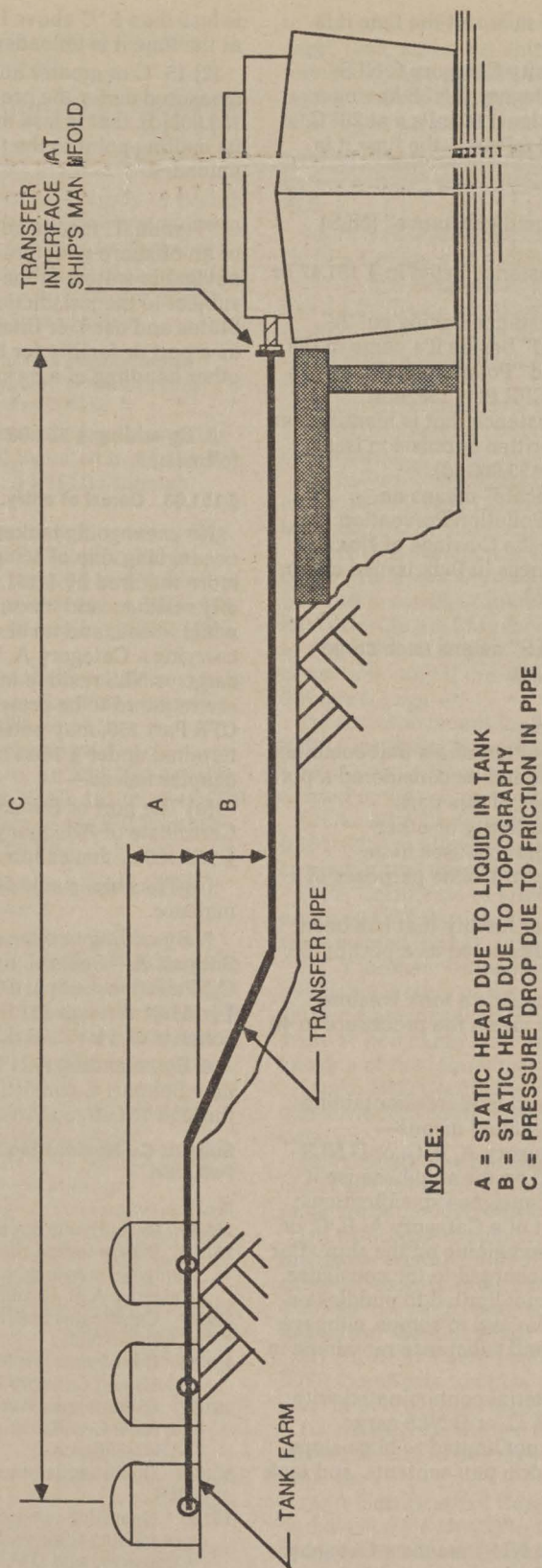
p-Chlorotoluene
n-Decyl alcohol (all isomers)
p-Dichlorobenzene molten*
Diglycidyl ether of Bisphenol A
Diisobutyl phthalate
Dinitrotoluene (molten)
Diphenyl methane diisocyanate
Dodecanol
Dodecyl diphenyl oxide
disulphonate solution
Ethylene dibromide
2-Ethyl-3-propylacrolein
Fatty alcohols (C12-C20)
Lactonitrile solution*
(80% or less)
4-Methylpyridine
Nitrobenzene
o-Nitrochlorobenzene
o-Nitrophenol (molten)
Octyl aldehydes*
Olefins, straight chain mixtures
Phenol or solutions with 5% or
more phenol
Rosin oil
Sodium hydrosulphide solution
(45% or less)
Sodium-2-mercapto-
benzothiazol solution
Sodium thiocyanate solution*
(56% or less)
Tall oil (crude and distilled)
1,2,4-Trichlorobenzene
Undecyl alcohol
Xylenol
OTHERS

Benzene or hydrocarbon
mixture containing 10%
or more benzene
Caustic potash solution
Chloroacetic acid
(80% or less)
Cyclohexane
Cyclohexanol
Diisopropanolamine
Ethylenediamine
Hexamethylenediamine
p-Nitrotoluene
Oleum
Paraldehyde
Phthalic anhydride (molten)
Polyethylene polyamines
n-Propanolamine
iso-Propanolamine
Sodium borohydride
(15% or less)/Sodium
hydroxide soln.
Sulphuric acid
Sulphuric acid, spent
Tetradecylbenzene*
Toluene diamine
Toluene diisocyanate
Tridecyl benzene*
p-Xylene
OTHERS

* PROVISIONALLY ASSESSMENTS

Figure 1.

TRANSFER LINE BACKPRESSURE DIAGRAM



List of Subjects**33 CFR Part 151**

Oil pollution, Reporting and recordkeeping requirements.

33 CFR Part 158

Hazardous waste, Oil pollution, Ports, Reception facilities, Terminals, Vessels.

In consideration of the preceding, it is proposed to amend Parts 151 and 158 of Subchapter O of Chapter I of Title 33, Code of Federal Regulations as follows:

1. The authority citation for Part 151 continues to read as follows:

Authority: 33 U.S.C. 1321(j)(1)(C), 1902(c) and 1903(b), E.O. 11735, 49 CFR 1.46(m) and (hh).

2. By revising the title of Part 151 to read as follows:

PART 151—OIL AND NOXIOUS LIQUID SUBSTANCE REGULATIONS

3. By revising § 151.01 to read as follows:

§ 151.01 Purpose.

The purpose of this part is to implement the Act to Prevent Pollution from Ships, 1980, (33 U.S.C. 1901 through 1911) and the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), done at London February 17, 1978.

Note.—MARPOL 73/78 is available from the National Technical Information Service, Springfield, VA. Please include reference number "ADA 168 505" in your request.

4. By revising § 151.03(a)(4) to read as follows:

§ 151.03 Applicability.

(a) * * *

(4) Except as provided by § 151.30, is operated under the authority of the United States and operates at any time seaward of the outermost boundary of the territorial sea of the United States as defined in § 2.05-10 of this chapter; or

5. By amending § 151.05 by removing the paragraph designations, alphabetizing the definitions, and by adding new definitions, in proper alphabetical order to read as follows:

§ 151.05 Definitions.

"High viscosity NLS" includes Category A NLSs having a viscosity of at least 25 mPa.s at 20° C and at least 25 mPa.s at the time they are unloaded, high viscosity Category B NLSs, and high viscosity Category C NLSs.

"High viscosity Category B NLS" means any Category B NLS having a viscosity of at least 25 mPa.s at 20° C

and at least 25 mPa.s at the time it is unloaded.

"High viscosity Category C NLS" means any Category C NLS having a viscosity of at least 60 mPa.s at 20° C and at least 60 mPa.s at the time it is unloaded.

"Noxious liquid substance" (NLS) means—

(1) Each substance listed in § 151.47 or § 151.49;

(2) Each substance having an "A", "B", "C", or "D" beside its name in the column headed "Pollution Category" in Table 1 of 46 CFR Part 153; and

(3) Each substance that is identified as an NLS in a written permission issued under 46 CFR 153.900 (d).

"NLS Certificate" means an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk issued under MARPOL 73/78.

"Oil-like NLS" means each cargo listed in § 151.49.

"Port" means—

(1) A group of terminals that combines to act as a unit and be considered a port for the purposes of this part;

(2) A port authority or other organization that chooses to be considered a port for the purposes of this part; or

(3) A place or facility that has been specifically designated as a port by the COTP.

"Prewash" means a tank washing operation that meets the procedure in 46 CFR 153.1120.

"Residues and mixtures containing NLSs" (NLS residue) means—

(1) Any Category A, B, C, or D NLS cargo retained on the ship because it fails to meet consignee specifications;

(2) Any part of a Category A, B, C, or D NLS cargo remaining on the ship after the NLS is discharged to the consignee, including but not limited to puddles on the tank bottom and in sumps, clingage in the tanks, and substance remaining in the pipes; or

(3) Any material contaminated with Category A, B, C, or D NLS cargo, including but not limited to bilge slops, ballast, hose drip pan contents, and tank wash water.

"Solidifying NLS" means a Category A, B, or C NLS that has a melting point—

(1) Greater than 0 °C but less than 15 °C and a temperature, measured under the procedure in 46 CFR 153.908(d), that

is less than 5 °C above its melting point at the time it is unloaded; or

(2) 15 °C or greater and a temperature, measured under the procedure in 46 CFR 153.908(d), that is less than 10 °C above its melting point at the time it is unloaded.

"Terminal" means an onshore facility or an offshore structure located in the navigable waters of the United States or subject to the jurisdiction of the United States and used, or intended to be used, as a port or facility for the transfer or other handling of a harmful substance.

6. By adding § 151.08 to read as follows:

§ 151.08 Denial of entry.

No oceangoing tanker or any other oceangoing ship of 400 gross tons or more required by § 151.09 to retain oil or oily residues and mixtures on board while at sea, and no oceangoing ship carrying a Category A, B, or C NLS cargo or NLS residue in cargo tanks that are required to be prewashed under 46 CFR Part 153, may enter any port or terminal under § 158.110(a) or (b) of this chapter unless—

(a) The port or terminal has a Certificate of Adequacy, as defined in § 158.120 of this chapter; or

(b) The ship is entering under force majeure.

7. By adding two new headings, Subpart A—General, and Subpart B—Oil Pollution. Subpart A consists of §§ 151.01 through 151.08 and Subpart B consists of §§ 151.09 through 151.25.

8. By amending Part 151 by adding a new Subpart C consisting of §§ 151.30 through 151.49 to read as follows:

Subpart C—Noxious Liquid Substance Pollution

Sec.

151.30 Exception to applicability.

151.31 Where to find the requirements applying to oceangoing ships carrying Category A, B, C, and D NLS.

151.33 Certificates needed to carry Category C Oil-like NLS.

151.35 Certificates needed to carry Category D NLS and Category D Oil-like NLS.

151.37 Obtaining an Attachment for NLSs to the IOPP Certificate and obtaining an NLS Certificate.

151.39 Operating requirements: Category D NLS.

151.41 Operating requirements for oceangoing ships with IOPP Certificates: Category C and D Oil-like NLSs.

151.43 Control of discharge of NLS residues.

151.45 Reporting spills of NLS: Category A, B, C, and D.

151.47 Category D NLSs Other Than Oil-like Category D NLSs allowed for carriage.

Sec.
151.49 Category C and D Oil-like NLSs
allowed for carriage.

Subpart C—Noxious Liquid Substance Pollution

§ 151.30 Exception to applicability.

This subpart does not apply to each tank barge whose certificate is endorsed by the Coast Guard for a limited short protected coastwise route if the barge is constructed and certificated primarily for service on an inland route.

§ 151.31 Where to find requirements applying to oceangoing ships carrying Category A, B, C, and D NLS.

(a) The requirements for oceangoing ships carrying NLSs listed in §§ 151.47 and 151.49 are in §§ 151.33 through 151.45.

(b) The requirements for oceangoing ships carrying NLSs listed in Table 151.05 of 46 CFR Part 151 and Table 1 of 46 CFR Part 153, which are not listed in § 151.47 or § 151.49, are in 46 CFR Parts 98, 151, and 153.

(c) Alternatives to the requirements in this Part for oceangoing ships carrying NLSs are in 46 CFR Part 153.

(d) Procedures for obtaining permission to carry an NLS not listed in § 151.47, § 151.49, Table 151.05 of 46 CFR Part 151, or Table 1 of 46 CFR Part 153 are in 46 CFR 153.900(c).

§ 151.33 Certificates needed to carry Category C oil-like NLS.

(a) A U.S. oceangoing ship may not carry a Category C oil-like NLS listed in § 151.49 in a cargo tank unless the ship has a Certificate of Inspection endorsed to allow the NLS to be carried in that cargo tank, and if the ship engages in a foreign voyage—

(1) An Attachment for NLSs to the IOPP Certificate, issued under § 151.37(a), that allows the NLS to be carried in that cargo tank; or

(2) A Certificate of Fitness issued under 46 CFR Part 153 that allows the NLS to be carried in that cargo tank.

(b) A foreign oceangoing ship operating in the navigable waters of the U.S. may not carry a Category C oil-like NLS listed in § 151.49 in a cargo tank unless the ship has—

(1) An Attachment for NLSs to the IOPP Certificate that allows the NLS to be carried in that cargo tank; or

(2) A Certificate of Compliance issued under 46 CFR Part 153 to allow the NLS to be carried in that cargo tank.

(c) A U.S. oceangoing ship authorized to carry certain dangerous cargoes in bulk under 46 CFR Part 98 may not carry a Category C oil-like NLS listed in § 151.49 in a cargo tank unless the ship has a Certificate of Inspection endorsed

to allow the NLS to be carried in that cargo tank, and if the ship engages in a foreign voyage, an NLS Certificate issued under § 151.37(b) that allows the NLS to be carried in that cargo tank.

§ 151.35 Certificates needed to carry Category D NLS and Category D Oil-like NLS.

(a) A U.S. oceangoing ship may not carry a Category D NLS listed in § 151.47 in a cargo tank unless the ship has a Certificate of Inspection endorsed to allow the NLS to be carried in that cargo tank, and if the ship engages in a foreign voyage—

(1) An NLS Certificate issued under § 151.37(b) to allow the NLS to be carried in that cargo tank; or

(2) A Certificate of Fitness issued under 46 CFR Part 153 to allow the NLS to be carried in that cargo tank.

(b) A U.S. oceangoing ship may not carry a Category D oil-like NLS listed in § 151.49 in a cargo tank unless the ship has a Certificate of Inspection endorsed to allow the NLS to be carried in that cargo tank, and if the ship engages in a foreign voyage—

(1) An Attachment for NLSs to the IOPP Certificate, issued under § 151.37(a), to allow the NLS to be carried in that cargo tank; or

(2) An NLS Certificate issued under § 151.37(b) to allow the NLS to be carried in that cargo tank, or

(3) A Certificate of Fitness issued under 46 CFR Part 153 to allow the NLS to be carried in that cargo tank.

(c) A foreign oceangoing ship in the navigable waters of the U.S. may not carry a Category D NLS listed in § 151.47 in a cargo tank unless the ship has one of the following:

(1) An NLS Certificate endorsed to allow the NLS to be carried in that cargo tank; or

(2) A Certificate of Compliance issued under 46 CFR Part 153 to allow the NLS to be carried in that cargo tank.

(d) A foreign oceangoing ship in the navigable waters of the U.S. may not carry a Category D oil-like NLS listed in § 151.49 in a cargo tank unless the ship has one of the following:

(1) An Attachment for NLSs to the IOPP Certificate to allow the NLS to be carried in that cargo tank; or

(2) An NLS Certificate endorsed to allow the NLS to be carried in the cargo tank; or

(3) A Certificate of Compliance issued under 46 CFR Part 153 to allow the NLS to be carried in the cargo tank.

(e) A U.S. oceangoing ship authorized to carry certain dangerous cargoes in bulk under 46 CFR Part 98 may not carry a Category D NLS listed in § 151.47 or a Category D oil-like NLS listed in § 151.49

in a cargo tank unless the ship has a Certificate of Inspection endorsed to allow the NLS to be carried in that cargo tank, and if the ship engages in a foreign voyage, an NLS Certificate issued under § 151.37(b) that allows the NLS to be carried in that cargo tank.

§ 151.37 Obtaining an Attachment for NLSs to the IOPP Certificate and obtaining an NLS Certificate.

(a) The Coast Guard issues an Attachment for NLSs to the IOPP Certificate to an oceangoing ship to allow the carriage of a Category C oil-like NLS or a Category D oil-like NLS if the following requirements are met:

(1) Except for ships that are not configured and are not equipped to ballast or wash cargo tanks while proceeding en route, the ship must have a Coast Guard approved monitor under § 157.12 that is approved for the cargoes that are desired to be carried.

(2) Except as required by paragraph (a)(3), ships of 150 meters or less in length carrying a Category C oil-like NLS must meet the damage stability requirements applying to a Type III hull as provided by Regulation 14 (c) of Annex II.

(3) A U.S. self propelled ship of 150 meters or less in length on a coastwise voyage carrying a Category C oil-like NLS must meet the damage stability requirements applying to a Type III hull as provided by 46 CFR Part 172, Subpart F except §§ 172.130 and 172.133.

(b) Except as allowed in paragraph (c) of this section, the Coast Guard issues an NLS Certificate endorsed to allow the oceangoing ship engaged in a foreign voyage to carry a Category D NLS listed in § 151.47 if the ship has—

(1) An approved Procedures and Arrangements Manual and Cargo Record Book, both meeting the requirements in 46 CFR 153.490; and

(2) A residue discharge system meeting 46 CFR 153.470, unless the approved Procedures and Arrangements Manual limits discharge of Category D NLS residue to the alternative provided by 46 CFR 153.112(b).

(c) The Coast Guard issues a NLS Certificate with the statement that the vessel is prohibited from discharging NLS residues to the sea if the vessel does not meet 46 CFR 153.470 and 153.490 but meets 46 CFR Subpart 98.31.

§ 151.39 Operating requirements: Category D NLS.

The master or person in charge of an oceangoing ship that carries a Category D NLS listed in § 151.47 shall ensure that the ship is operated as prescribed for the operation of oceangoing ships carrying

Category D NLSs in 46 CFR 153.901, 153.906, 153.909, 153.1100, 153.1104, 153.1106, 153.1124, 153.1126, and 153.1128.

§ 151.41 Operating requirements for oceangoing ships with IOPP Certificates: Category C and D oil-like NLSs.

The master or person in charge of an oceangoing ship certificated under § 151.37(a) shall ensure that—

(a) The carriage and discharge of the oil-like NLS meets §§ 157.29, 157.31, 157.35, 157.37, 157.41, 157.45, 157.47, and 157.49 of this chapter; and

(b) The oil-like NLS is not discharged unless—

(1) The monitor required by § 151.37(a)(1) is set to detect the oil-like NLS; and

(2) A statement that the monitor has been set to detect the oil-like NLS is entered in the Oil Record Book Part II (Cargo/Ballast Operations), required by § 151.25.

§ 151.43 Control of discharge of NLS residues.

(a) Unless the ship is a fixed or floating drilling rig or other platform operating under an National Pollution Discharge Elimination System (NPDES) permit, the master or person in charge of an oceangoing ship that cannot discharge NLS residue into the sea in accordance with 46 CFR 153.1126 or 153.1128 shall ensure that the NLS residue is—

- (1) Retained on board; or
- (2) Discharged to a reception facility.

(b) If Category A, B, or C NLS cargo or NLS residue is to be transferred at a port or terminal in the United States, the master or person in charge of each oceangoing ship carrying NLS cargo or NLS residue shall notify the port or terminal at least 24 hours before entering the port or terminal of—

- (1) The name of the ship;
- (2) The name, category and volume of NLS cargo to be unloaded;

(3) If the cargo is a Category B or C high viscosity NLS cargo or solidifying NLS cargo listed in Table 1 of 46 CFR Part 153 with a reference to "§ 153.908(a)" or "§ 153.908(b)" in the "Special Requirements" column of that table, the time of day the ship is estimated to be ready to discharge NLS residue to a reception facility;

(4) If the cargo is any Category B or C NLS cargo not under paragraph (b)(3) of this section, whether or not the ship meets the stripping requirements under 46 CFR 153.480, 153.481, or 153.482;

(5) The name and the estimated volume of NLS in the NLS residue to be discharged;

(6) The total volume of NLS residue to be discharged; and

(7) The name and amount of any cleaning agents to be used during the prewash required by 46 CFR 153.1120.

(c) The master or person in charge of a U.S. ship in a special area shall operate the ship in accordance with 46 CFR 153.903.

Note.—The master or person in charge of a ship carrying Category A NLS that is required to prewash tanks under the procedures in 46 CFR Part 153.1120 is required under 46 CFR 153.1101 to notify the COTP at least 24 hours before a prewash surveyor is needed.

§ 151.45 Reporting spills of NLS: Category A, B, C, and D.

(a) The master or person in charge of an oceangoing ship involved in any incident described in paragraph (d) of this section, shall report the particulars of each incident without delay and to the fullest extent possible in accordance with the requirements of this section.

(b) If a ship involved in an incident is abandoned, or if a report from that ship is incomplete or unobtainable, the owner, charterer, manager, or operator of that ship or their agents shall, to the fullest extent possible, assume the obligations placed upon the master or person in charge under the requirements of this section.

(c) Each report must be made by radio or the fastest means available at the time the report is made to—

(1) The appropriate officer or agency of the government of a country in whose waters the incident occurs; and

(2) For incidents involving U.S. ships, the nearest Coast Guard Captain of the Port (COTP) or the National Response Center (NRC), toll free telephone number 800-424-8802, telex number 892427.

(d) The report must be made whenever an incident involves a discharge or the probability of a discharge—

(1) Other than as allowed by this part; or

(2) Allowed by this part because it—

(i) Secures the safety of the ship or saves lives at sea; or

(ii) It results from damage to the ship or its equipment.

(e) Each report must contain—

(1) The identity of the ship;

(2) The name of the NLS discharged;

(3) The time and date of the occurrence of the incident;

(4) The geographic position of the ship when the incident occurred;

(5) The wind and sea condition prevailing at the time of the incident;

(6) Relevant details respecting the condition of the ship; and

(7) A statement or estimate of the quantity of the NLS cargo or NLS

residue discharged or likely to be discharged into the sea.

(f) Each person who is obligated under the provisions of this section to send a report shall—

(1) Supplement the initial report, as necessary, with information concerning further developments; and

(2) Comply as fully as possible with requests from affected countries for additional information concerning the incident.

(h) A report made under this section satisfies the reporting requirement of § 153.203 of this chapter.

§ 151.47 Category D NLSs Other Than Oil-like Category D NLSs Allowed for carriage.

The following is a list of Category D NLSs other than Oil-like Category D NLSs that the Coast Guard allows to be carried:

Ammonium sulfate solution
Amyl alcohol (n-, sec- primary)
sec-Butyl acetate
Butylene glycol
Gamma Butyrolactone
Calcium alkyl salicylate
Calcium chloride solutions
Caprolactam
Coconut oil, fatty acid methyl ester
Diacetone alcohol
Diethylene glycol butyl ether acetate
Diethylene glycol ethyl ether acetate
Diethylene glycol methyl ether acetate
Di-ethyl hexyl adipate
Di-ethyl hexyl phthalate
Diisobutyl ketone
Diisodecyl phthalate
Dinonyl phthalate
Dipropylene glycol methyl ether
Diundecyl phthalate
2-Ethoxy ethanol
Ethyl acetate
Ethyl acetoacetate
Ethylene diamine, tetra-acetic acid, tetrasodium salt
Ethylene glycol butyl ether
Ethylene glycol butyl ether acetate
Ethylene glycol methyl ether
Ethylene glycol methyl ether acetate
Ethylene glycol phenyl ether
2-Ethyl hexanoic acid
Formamide
1-Hexanol
N-Hydroxyethyl ethylene diamine triacetic acid, trisodium salt solution
Isoamyl alcohol
Isobutyl formate
Isophorone
Lactic acid
Latex
3-Methoxybutyl acetate
Methyl-tert-butyl ether
Methyl isobutyl ketone
Oleic Acid
Polypropylene glycols
n-Propyl acetate
n-Propyl alcohol
Propylene glycol methyl ether
Triisopropanolamine
Tripropylene glycol methyl ether
Urea, ammonium phosphate solution

§ 151.49 Category C and D Oil-like NLSs allowed for carriage.

The following is a list of Category C and D Oil-like NLSs that the Coast Guard allows to be carried:

(a) The following Category C oil-like NLSs may be carried:

Cyclohexane
p-Cymene
Decene
Diethyl Benzene
Dipentene
Dodecyl benzene
Ethyl benzene
Heptene (mixed isomers)
1-Hexene
2-Methyl-1-pentene
n-Pentane
Pentene, all isomers
Phenylxylethane
Propylene dimer
Tetrahydro naphthalene
Toluene
Xylene

(b) The following Category D oil-like NLSs may be carried:

Alkylbenzene (C₉ to C₁₇ straight or branched chain)
Butene oligomer
Diisopropyl naphthalene
Dodecane
Ethylcyclohexane
Isopentane
Nonane
Octane
n-Paraffins (C₁₀ to C₂₀)

9. The authority citation to Part 158 is revised to read as follows:

Authority: 33 U.S.C. 1903(b); 49 CFR 1.46(hh).

10. By revising the Title to Part 158 to read as follows:

PART 158—CONTROL OF RESIDUES AND MIXTURES CONTAINING OIL OR NOXIOUS LIQUID SUBSTANCES

11. By amending Part 158 by revising Subpart A consisting of §§ 158.100 through 158.190 to read as follows:

Subpart A—Certificates of Adequacy: Obtaining and Retaining

General

Sec.
158.100 Purpose.
158.110 Applicability.
158.120 Definitions and acronyms.
158.130 Delegations.
158.140 Applying for a Certificate of Adequacy.
158.150 Waivers and alternatives.
158.160 Issuance and termination of a Certificate of Adequacy.
158.163 Reception facility operations.
158.165 Certificate of Adequacy: Change of information.

Suspension, Revocation, and Appeals

158.170 Grounds for suspension.

Sec.

158.172 Notification of a suspension order.
158.174 Suspension of a Certificate of Adequacy: Procedure.
158.176 Effect of Suspension of a Certificate of Adequacy.
158.178 Actions during a suspension.
158.180 Certificate of Adequacy: Procedure after revocation or the part no longer applies.
158.190 Appeals.

Subpart A—Certificate of Adequacy: Obtaining and Retaining

General

§ 158.100 Purpose.

This part establishes the following:

(a) Criteria for determining the adequacy of reception facilities.
(b) Procedures for certifying that reception facilities are adequate for receiving—

(1) Residues and mixtures containing oil from oceangoing tankers and any other oceangoing ships of 400 gross tons or more; or

(2) NLS residue from oceangoing ships.

(c) Standards for ports and terminals to reduce NLS residue.

§ 158.110 Applicability.

This part applies to each port and each terminal located in the United States or subject to the jurisdiction of the United States that is—

(a) Used by oceangoing tankers, or any other oceangoing ships of 400 gross tons or more, carrying residues and mixtures containing oil, or by oceangoing ships to transfer NLSs, except those ports and terminals that are used only by—

(1) Non-self-propelled tank barges that are not configured and are not equipped to ballast or wash cargo tanks while proceeding enroute; or

(2) Ships carrying NLS operating under waivers under 46 CFR 153.491(b); or

(b) A ship repair yard that services oceangoing ships carrying oil or NLS residue.

§ 158.120 Definitions and acronyms.

As used in this part:

"Bunker oil" means oil loaded into bunker tanks for use as fuel.

"Captain of the Port" (COTP) means the Coast Guard officer commanding a Captain of the Port Zone described in Part 3 of this chapter.

"Certificate of Adequacy" means a Coast Guard issued Certificate of Adequacy with Form A or Form B or both attached.

"Clean ballast" has the same meaning as in § 157.03(e) of this chapter.

"Commandant" means Commandant, U.S. Coast Guard.

"Daily vessel average" means the total number of oceangoing tankers, or any other oceangoing ships of 400 gross tons or more, carrying residues and mixtures containing oil, serviced over a typical continuous 12 month period, divided by 365.

"Form A" means the application for a reception facility Certificate of Adequacy for oil, Coast Guard form USCG-CG-5401A (9-85).

"Form B" means the application for a reception facility Certificate of Adequacy for NLS, Coast Guard form USCG-CG-5401B(2-87).

"High viscosity NLS" includes Category A NLSs having a viscosity of at least 25 mPa.s at 20 °C and of at least 25 mPa.s at the time they are unloaded, high viscosity Category B NLSs, and high viscosity Category C NLSs.

"High viscosity Category B NLS" means any Category B NLS having a viscosity of at least 25 mPa.s at 20 °C and at least 25 mPa.s at the time it is unloaded.

"High viscosity Category C NLS" means any Category C NLS having a viscosity of at least 60 mPa.s at 20 °C and at least 60 mPa.s at the time it is unloaded.

"MARPOL Protocol" (MARPOL 73/78) stands for the International Convention for the Prevention of Pollution from Ships, 1973, (done at London, November 2, 1973), as modified by the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships 1973 (done at London on February 17, 1978), as amended, (1985).

"Noxious liquid substance" (NLS) means—

(1) Each substance listed in § 151.47 or § 151.49 of this chapter;

(2) Each substance having an "A", "B", "C", or "D" beside its name in the column headed "Pollution Category" in Table 1 of 46 CFR Part 153; and

(3) Each substance that is identified as an NLS in a written permission issued under 46 CFR 153.900(d).

"Oceangoing ship" means a ship that—

(1) Is operated under the authority of the United States and engages in international voyages;

(2) Is operated under the authority of the United States and is certificated for ocean service;

(3) Is operated under the authority of the United States and is certificated for coastwise service beyond three miles from land;

(4) Is operated under the authority of the United States and operates at any

time seaward of the outermost boundary of the territorial sea of the United States as defined in § 2.05 of this chapter; or

(5) Is operated under the authority of a country other than the United States.

Note.—A Canadian or U.S. ship being operated exclusively on the Great Lakes of North America or their connecting and tributary waters, or exclusively on the internal waters of the United States and Canada, is not an "oceangoing ship."

"Oil" means petroleum in any form including crude oil, fuel oil, sludge, oil refuse, and refined products (other than petrochemicals that are subject to the provisions of Annex II of MARPOL 73/78) and without limiting the generality of the foregoing, includes the substances listed in Appendix I of Annex I of MARPOL 73/78.

"Person" has the same meaning as in § 151.05(n) of this chapter.

"Person in charge" means an owner, operator, or a person authorized to act on behalf of a port or terminal.

Note.—The "person in charge" under this part is not necessarily the same person as the "person in charge" referred to in Parts 151, 154, 155, and 156 of this chapter (as defined in § 154.105 of this chapter.)

"Prewash" means a tank washing operation that meets the procedure in 46 CFR 153.1120.

"Port" means—

(1) A group of terminals that combines to act as a unit and be considered a port for the purposes of this part;

(2) A port authority or other organization that chooses to be considered a port for the purposes of this part; or

(3) A place or facility that has been specifically designated as a port by the COTP.

"Reception facility" means anything capable of receiving shipboard residues and mixtures containing oil, NLS residue, or both including, but not limited to—

(1) Fixed piping that conveys residues and mixtures from the ship to a storage or treatment system;

(2) Tank barges, railroad cars, tank trucks, or other mobile facilities; and

(3) Any combination of fixed and mobile facilities.

"Regulated NLS cargo" includes each Category A or high viscosity or solidifying Category B or C NLS cargo listed in Table 1 of 46 CFR Part 153 that contains a reference to § 153.908(a) or § 153.908(b) in the "Special Requirements" column of that table and is unloaded at the port or terminal within a typical continuous 12 month period either before or after application is made for a Certificate of Adequacy.

"Residues and mixtures containing NLSs" (NLS residue) means—

(1) Any Category A, B, C, or D NLS cargo retained on the ship because it fails to meet consignee specifications;

(2) Any part of a Category A, B, C or D NLS cargo remaining on the ship after the NLS is discharged to the consignee, including but not limited to puddles on the tank bottom and in sumps, clingage in the tanks, and substance remaining in the pipes; or

(3) Any material contaminated with Category A, B, C, or D NLS cargo, including but not limited to bilge slops, ballast, hose drip pan contents, and tank wash water.

"Segregated ballast" has the same meaning as contained in § 157.03(r) of this chapter.

"Ship" means a vessel of any type whatsoever, operating in the marine environment. This includes hydrofoils, air cushion vehicles, submersibles, floating craft whether self-propelled or not, and fixed or floating drilling rigs or other platforms.

"Solidifying NLS" means a Category A, B, or C NLS that has a melting point—

(1) Greater than 0 °C but less than 15 °C and a temperature, measured under the procedure in 46 CFR 153.908(d), that is less than 5 °C above its melting point at the time it is unloaded; or

(2) 15 °C or greater and has a temperature, measured under the procedure in 46 CFR 153.908(d), that is less than 10 °C above its melting point at the time it is unloaded.

"Tank barge" has the same meaning as contained in 46 CFR 30.10-65.

"Tanker" means a ship constructed or adapted primarily to carry oil in bulk in the cargo spaces.

"Terminal" means an onshore facility or an offshore structure located in the navigable waters of the United States or subject to the jurisdiction of the United States and used, or intended to be used, as a port or facility for the transfer or other handling of a harmful substance.

"The Act" means the Act to Prevent Pollution from Ships (94 Stat. 2297, 33 U.S.C. 1901 *et seq.*)

§ 158.130 Delegations.

Each COTP is delegated the authority to—

(a) Conduct inspections of each reception facility for which an application under § 158.140 is submitted to determine if it meets Subpart B of this part or Subpart C of this part, or both;

(b) If Form B is submitted, conduct an inspection of each port or terminal to determine if it meets § 158.330;

(c) After determining that the reception facility passes the inspection

under paragraph (a) of this section, and if applicable, the inspection under paragraph (b) of this section, issue a Certificate of Adequacy for the port or terminal;

(d) Grant waivers under § 158.150;

(e) Designate ports; and

(f) Except when a ship is entering under force majeure, deny entry of ships to any port or terminal under § 158.110 not having an applicable Certificate of Adequacy to any—

(1) Oceangoing tankers, or any other oceangoing ships of 400 gross tons or more, carrying residues and mixtures containing oil; or

(2) Oceangoing ships carrying NLSs.

§ 158.140 Applying for a Certificate of Adequacy.

(a) Each port or terminal under this part must have a Certificate of Adequacy for its reception facilities in order for oceangoing tankers, or any other oceangoing ships of 400 gross tons or more, carrying residues and mixtures containing oil; or oceangoing ships carrying NLSs to continue to call at the port or terminal. To apply for a Certificate of Adequacy, the applicant must apply to the COTP of the Zone in which the port or terminal is located on—

(1) Form A, for each port or terminal used by oceangoing tankers, or any other oceangoing ships of 400 gross tons or more, carrying residues and mixtures containing oil; and

(2) Form B, for each port or terminal used by oceangoing ships carrying NLSs.

§ 158.150 Waivers and alternatives.

(a) If the person in charge believes that a requirement in this part is unreasonable or impracticable for the port's or terminal's operations, the person in charge may submit a request for a waiver to the COTP. This application must—

(1) Be in writing; and

(2) Include the—

(i) Reasons why the requirement is unreasonable or impracticable;

(ii) Proposed alternatives that meet MARPOL 73/78; and

(iii) Additional information requested by the COTP.

(b) If the COTP allows the alternative proposed under paragraph (a)(2)(ii) of this section, the waiver—

(1) Is in writing; and

(2) States each alternative that applies and the requirement under this part for which the alternative is substituted.

(c) The person in charge shall ensure that each waiver issued under paragraph (b) of this section is attached

to the Certificate of Adequacy issued for the port or terminal.

§ 158.160 Issuance and termination of a Certificate of Adequacy.

(a) After reviewing the application made under § 158.140, the COTP determines by inspection the following:

- (1) When the application is made on Form A, whether or not the reception facility meets Subpart B of this part.
- (2) When the application is made on Form B, whether or not the reception facility and the port, or the reception facility and the terminal, meet Subpart C of this part.

Note.—If in the instruction manual required by § 158.330(b) there is a certification by a registered professional engineer licensed by a state or the District of Columbia that the backpressure requirements under § 158.330(a) are met, the COTP may accept this finding.

(b) After the inspections under paragraph (a) are conducted, and after consulting with the Administrator of the Environmental Protection Agency (EPA) or his or her designee, the COTP—

- (1) Issues a Certificate of Adequacy to the person in charge for the port or terminal; or
- (2) Denies the application and informs the person in charge in writing of the reasons for the denial.

(c) The Certificate of Adequacy has attached to it any waivers that are granted under § 158.150 when the Certificate of Adequacy is issued.

(d) Each Certificate of Adequacy remains valid until—

- (1) Suspended;
- (2) Revoked; or
- (3) This part no longer applies to the port or terminal.

§ 158.163 Reception facility operations.

(a) Each person in charge and each person who is in charge of a reception facility shall ensure that the reception facility does not operate in a manner that violates any requirement under this part.

(b) A copy of the Certificate of Adequacy issued for the port or terminal must be—

- (1) At each port and terminal under this part; and
- (2) Available for inspection by the COTP and the master, person who is in charge, or the agent of an oceangoing ship.

(c) Ports and terminals required to have an Operations Manual under this chapter or 46 CFR Chapter 1 must have a copy of the Certificate of Adequacy issued for the port or terminal, including any waivers, attached to that Operations Manual.

§ 158.165 Certificate of Adequacy: Change of information.

(a) Except as required in paragraph (b) of this section, the person in charge shall notify the COTP in writing within 10 days after any information required in section 2, 3A, 3G, or 3H, of Form A or section 2, 5A, or 5C of Form B changes.

(b) The person in charge shall notify the COTP in writing within 30 days after any information required in section 1, 3B, 3C, 3E, 3F, 3I, or 3J of Form A or section 1, 3, 4, 5B, 5D, 5E, 5F or 5G of Form B changes.

(c) The person in charge shall maintain at the port or terminal a copy of the information submitted under paragraphs (a) and (b) of this section, until a corrected Certificate of Adequacy is received from the COTP.

Suspension and Revocation

§ 158.170 Grounds for suspension.

The COTP may suspend a Certificate of Adequacy if—

- (a) Deficiencies recur or significantly affect the adequacy of the reception facility;
- (b) Continued operations will result in undue delay to ships calling at the port or terminal;
- (c) There is a failure to accept NLS residue from a ship after its cargo tanks are prewashed in accordance with 46 CFR 153.1120; or
- (d) There is a substantial threat of discharge of oil or NLS into or upon the navigable waters of the United States or adjoining shorelines.

§ 158.172 Notification of a suspension order.

(a) If the COTP has grounds for an immediate suspension of or is considering suspending a Certificate of Adequacy, the COTP notifies the person in charge of the intended action. Each notification of a suspension order, whether oral or written, includes—

- (1) The grounds for the suspension;
- (2) The date when the suspension becomes effective; and
- (3) Information on how the suspension may be withdrawn, including all corrective actions required.

(b) If the suspension order is made orally, the COTP issues a suspension order in writing within five days after the initial notification.

§ 158.174 Suspension of a Certificate of Adequacy: Procedure.

(a) If no evidence or arguments are submitted in response to a notification of a suspension order, the suspension is effective on the date stated in the order.

(b) If any petition for withdrawing a suspension order is submitted in response to a notification of a

suspension order, the COTP considers the evidence or arguments and notifies the person in charge of any action taken including—

- (1) Denial of the petition for withdrawing a suspension order;
- (2) Initiation of civil or criminal penalty action under Subpart 1.07 of Part 1 of this chapter; or
- (3) Withdrawing the suspension order.

§ 158.176 Effect of suspension of a Certificate of Adequacy.

After the COTP notifies the person in charge and places a suspension order in effect, the COTP denies entry of ships to the port or terminal while the Certificate of Adequacy is suspended.

§ 158.178 Actions during a suspension.

(a) If a Certificate of Adequacy is suspended for longer than a five day period, the person in charge shall return it to the COTP within five days after the suspension becomes effective.

(b) After the suspension is in effect, the COTP may—

- (1) Terminate the suspension order after receiving information from the person in charge that corrective action has been taken; or
- (2) Revoke the Certificate of Adequacy if no significant action is undertaken by the person in charge to meet any measures ordered by the COTP.

§ 158.180 Certificate of Adequacy: Procedures after revocation or the part no longer applies.

(a) If a Certificate of Adequacy is revoked, the person in charge shall return it to the COTP within five days after the revocation becomes effective.

(b) When this part no longer applies to the port or terminal, the person in charge shall return the Certificate of Adequacy to the COTP within 30 days after this part no longer applies.

(c) After the Certificate of Adequacy has been returned to the COTP under paragraph (a) or (b) of this section, an application for a new Certificate of Adequacy may be submitted under § 158.140.

§ 158.190 Appeals.

(a) Any person directly affected by an action taken under this part may request reconsideration by the Coast Guard officer responsible for that action.

(b) Except as provided under paragraph (e) of this section, the person affected who is not satisfied with a ruling after having it reconsidered under paragraph (a) of this section may—

- (1) Appeal that ruling in writing within 30 days after the ruling to the Coast Guard District Commander of the

district in which the action was taken; and

(2) Supply supporting documentation and evidence that the appellant wishes to have considered.

(c) The District Commander issues a ruling after reviewing the appeal submitted under paragraph (b) of this section. Except as provided under paragraph (e) of this section, the person affected who is not satisfied with this ruling may—

(1) Appeal that ruling in writing within 30 days after the ruling to the Chief, Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, Washington, DC, 20593; and

(2) Supply supporting documentation and evidence that the appellant wishes to have considered.

(d) After reviewing the appeal submitted under paragraph (c) of this section, the Chief, Office of Marine Safety, Security and Environmental Protection issues a ruling which is final agency action.

(e) If the delay in presenting a written appeal has an adverse impact on the operations of the appellant, the appeal under paragraph (b) or (c) of this section—

(1) May be presented orally; and

(2) Must be submitted in writing within five days after the oral presentation—

(i) With the basis for the appeal and a summary of the material presented orally; and

(ii) To the same Coast Guard official who heard the oral presentation.

12. By revising § 158.200(a) to read as follows:

§ 158.200 General.

(a) Except as allowed in paragraph (b) of this section, the facility used to meet Regulation 12 of Annex I to MARPOL 73/78 must—

(1) Be a reception facility as defined under § 158.120 that is available at the port or terminal;

(2) Hold each Federal, State, and local permit and license required by environmental laws and regulations concerning residues and mixtures containing oil; and

(3) Be capable of—

(i) Receiving residues and mixtures containing oil from oceangoing ships within 24 hours after notice by that ship;

(ii) Completing the reception of oily ballast from the ship in less than 10 hours after waste transfer operations begin; and

(iii) Completing the reception of other residues and mixtures containing oil in less than 4 hours after the transfer operation begins.

13. By revising § 158.210 (b) and (c) to read as follows:

§ 158.210 Ports and terminals loading crude oil.

(b) Oily bilge water in the amount of 10 metric tons (11 short tons) or 2 metric tons (2.2 short tons) multiplied by the daily vessel average, whichever quantity is greater; and

(c) Oily ballast in the amount of 30% of the deadweight tonnage of the largest of the oceangoing tankers loading crude oil at the port or terminal that do not have clean ballast tanks (CBT), segregated ballast tanks (SBT), or crude oil washing (COW) meeting Part 157 of this subchapter, multiplied by one or the daily vessel average, whichever quantity is greater.

14. By revising § 158.220 (b), (c), and (d) to read as follows:

§ 158.220 Ports and terminals loading more than 1,000 metric tons of oil other than crude oil or bunker oil.

(b) Oily bilge water in the amount of 10 metric tons (11 short tons) or 2 metric tons (2.2 short tons) multiplied by the daily vessel average, whichever quantity is greater;

(c) Oily ballast in the amount of 30% of the deadweight tonnage of the largest of the oceangoing tankers loading oil other than crude oil or bunker oil, at the port or terminal, that do not have CBT or SBT meeting Part 157 of this chapter, multiplied by one or the daily vessel average, whichever quantity is greater; and

(d) Cargo residue in the amount of 0.2% of the total cargo capacity of the largest of the oceangoing tankers loading oil other than crude oil or bunker oil, at the port or terminal, multiplied by one or the daily vessel average, whichever quantity is greater.

15. By revising § 158.230 (a) and (b) to read as follows:

§ 158.230 Ports and terminals other than ports and terminals under §§ 158.210, 158.220, and 158.240.

(a) Sludge from on-board fuel and lubricating oil processing in the amount of 10 metric tons (11 short tons), or 1 metric ton (1.1 short tons) multiplied by the daily vessel average, whichever quantity is greater; and

(b) Oily bilge water in the amount of 10 metric tons (11 short tons) or 2 metric tons (2.2 short tons) multiplied by the daily vessel average, whichever quantity is greater.

16. By amending Part 158 by adding a new Subpart C consisting of §§ 158.300 through 158.330 to read as follows:

Subpart C—Criteria for Certifying That a Port's or Terminal's Facilities Are Adequate for Receiving NLS Residue

Sec.

158.300 Purpose.

158.310 Reception facilities: General.

158.320 Reception facilities: Capacity and exceptions.

158.330 Ports and terminals: Equipment.

Subpart C—Criteria for Certifying That a Port's or Terminal's Facilities Are Adequate for Receiving NLS Residue

§ 158.300 Purpose.

The purpose of this subpart is to supply the criteria needed for ports and terminals under § 158.110 used by oceangoing ships carrying NLS cargo or NLS residue to meet Regulation 7 of Annex II to MARPOL 73/78.

§ 158.310 Reception facilities: General.

(a) Except as allowed in paragraph (b) of this section, each reception facility, in order to pass the inspection under § 158.160, must—

(1) Be a reception facility as defined under § 158.120;

(2) Be available at the port or terminal;

(3) Meet the requirements of § 158.320;

(4) Hold each Federal, State, and local permit and license required by environmental laws and regulations concerning NLS residue;

(5) Be capable of receiving NLS residue from an oceangoing ship within 24 hours after notice by that ship of the need for reception facilities; and

(6) Be capable of completing the transfer of NLS residue within 10 hours after the transfer of NLS residue begins.

(b) A reception facility for a ship repair yard does not have to meet the requirements of paragraphs (a)(5) and (a)(6) of this section if it is capable of completing transfer of NLS residue from an oceangoing ship before the ship departs from the yard.

§ 158.320 Reception facilities: Capacity, and exceptions.

(a) Except as allowed in paragraph (b) of this section, each day the port or terminal is in operation, the port or terminal must have a reception facility that is capable of receiving—

(1) 75 cubic meters (19,810 gallons) of NLS residue for each regulated NLS cargo that is a solidifying Category A NLS; or

(2) 50 cubic meters (13,210 gallons) of NLS residue for each regulated NLS cargo that is not a solidifying Category A.

(b) The port or terminal need only meet § 158.330 if it is used by ships that only transfer Category B or C NLS

cargoes that are not high viscosity or solidifying Category B or C NLSs.

(c) For each category of NLS cargo carried on a ship, each day a ship repair yard is in operation and being used by a ship that must discharge NLS residue in order to proceed with repair work, the ship repair yard must have a reception facility that is capable of receiving—

(1) 50 cubic meters (13,210 gallons) of NLS residue that contains a—

(i) Category A NLS that is not a solidifying NLS;

(ii) Category B NLS; or

(iii) Category C NLS; or

(iv) Category D NLS; or

(2) 75 cubic meters (19,810 gallons) of NLS residue that contains a Category A NLS that is a solidifying NLS cargo.

§ 158.330 Ports and terminals: Equipment.

Each port and terminal except ship repair yards, in order to pass the inspection under § 158.160, must—

(a) At mean low tide and with the ship's manifold 10 feet above the surface of the water, be capable of receiving Category B or C NLS cargo during the stripping operations at an average flow rate of 6 cubic meters (1584 gallons) per hour without the backpressure at the ship's manifold exceeding 101.6 kPa (14.7 pounds per square inch gauge) pressure; and

(b) Have an instruction manual that lists the equipment and procedures for meeting paragraph (a) of this section. The instruction manual may be made part of the operations manual that is required under § 154.300 of this chapter.

17. By amending Part 158 by adding a new Subpart D consisting of §§ 158.400 through 158.420 to read as follows:

Subpart D—Port and Terminal Operations

Sec.

158.400 Draining cargo hose and piping systems.

158.420 Following the instruction manual.

Subpart D—Port and Terminal Operations

§ 158.400 Draining cargo area and piping systems.

The person in charge shall ensure that each cargo hose and each piping system containing NLS received from each oceangoing ship carrying NLS cargo is not drained back into the ship.

§ 158.420 Following the instruction manual.

The person in charge shall ensure that the instruction manual under § 158.330(b) is followed during the transfer of any NLS.

Dated: March 4, 1987.

J.W. Kime,

Rear Admiral, U.S. Coast Guard, Chief, Office of Marine Safety, Security and Environmental Protection.

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46 CFR Parts 30, 98, 151, 153, and 172

[CGD 81-101]

Pollution Rules for Ships Carrying Hazardous Liquids

AGENCY: Coast Guard, DOT.

ACTION: Final rule.

SUMMARY: The Coast Guard is implementing Annex II of the 1978 Protocol to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL 73/78) with design and operating requirements for all ships that are oceangoing United States ships or are foreign ships and trading in United States waters, and that carry bulk cargo of noxious liquid substances. Annex II of MARPOL 73/78 will be effective on April 6, 1987. The requirements will control operational pollution and reduce the chance of accidental pollution from ships carrying the cargoes.

EFFECTIVE DATE: April 6, 1987.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert M. Query, Office of Marine Safety, Security, and Environmental Protection, telephone (202)-267-1217 from 8:00 a.m. until 3:30 p.m., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION: The Coast Guard published a Notice of Proposed Rulemaking (NPRM) on September 26, 1986 (51 FR 34350). Interested persons were given until November 10, 1986 to comment on the proposal, with an extension to November 24, 1986. The Coast Guard received 45 letters commenting on the proposal.

Drafting Information

The principal persons involved in drafting this final rule are: Mr. Robert M. Query, Project Manager, Office of Marine Safety, Security, and Environmental Protection, and Mr. Stanley M. Colby, Project Counsel, Office of Chief Counsel.

Background to Annex II of MARPOL 73/78

The United States has ratified a convention to control marine pollution developed by the International Maritime Organization (IMO). This convention,

entitled "International Convention for the Prevention of Pollution from Ships, 1973 (done at London, November 2, 1973), as modified by the Protocol of 1978, relating to the International Convention for the Prevention of Pollution from Ships, 1973 (done at London, February 17, 1978)," and its first two technical annexes, Annex I and Annex II, are referred to in this preamble as MARPOL 73/78. Under the Act to Prevent Pollution from Ships ("the Act") (33 U.S.C. 1901), the Secretary of Transportation is given the task of administering and enforcing MARPOL 73/78 and the Act; the Secretary delegated this task to the Coast Guard (49 CFR 1.46(hh)). Annex I of MARPOL 73/78 was implemented several years ago when the Coast Guard published requirements controlling the accidental and operational discharge of oil by ships (33 CFR Parts 151 and 157) and established criteria for determining the adequacy of reception facilities for receiving residues and mixtures containing oil (33 CFR Part 158). Implementation of Annex II of MARPOL 73/78, which controls accidental and operational discharges of residues and mixtures of noxious liquid substances from ships, typically the result of cargo tank cleaning, is the subject of this final rule and a second final rule mainly concerning reception facilities elsewhere in this edition of the *Federal Register*. This particular final rule contains the changes to Title 46, CFR, and affects ships that carry noxious liquid substances (NLSs). The changes in the other rulemaking affect principally reception facilities for NLSs but also contain requirements for carrying certain Category D and oil-like Category C NLSs that are alternatives to the requirements in this final rule.

The Coast Guard published an Advanced Notice of Proposed Rulemaking (ANPRM) in the *Federal Register* of January 13, 1983 (48 FR 1519) requesting comments from the public on how best to implement the requirements in Annex II of MARPOL 73/78. Six comments were received, of which four were responses to the request for information on cargoes, which the Coast Guard had requested because it had little data on them. The remaining two comments were general but supportive. There were no specific responses to the other areas for which the Coast Guard requested information. The ANPRM described the implementation of Annex II of MARPOL 73/78 as it existed at the time.

Amendments to decrease Cost and Complexity of Annex II

As discussed in the preamble to the NPRM, Annex II has been revised heavily in the past three years to reduce costs to offloading ports and reduce the complexity its operations pose for the ships' crew.

Each NLS regulated by Annex II is assigned to one of four categories (A, B, C, or D) in order of decreasing aquatic toxicity and other harmful characteristics. Restrictions on discharging NLSs into the sea are, therefore, the most stringent for Category A. For all categories, the Annex attempts to ensure that the volume of cargo residues remaining on a ship after unloading a cargo is sufficiently small that the residues cause no environmental harm if discharged under the operating restrictions specified in the Annex.

As Annex II was originally structured, a ship which offloaded a Category A NLS cargo and was to wash the cargo tank at sea would be required to do a preliminary wash of the cargo tank and discharge the wash water to a reception facility until the concentration of the Category A NLS in the wash water was below 0.1% by weight. A similar requirement would have applied to a cargo tank that had offloaded a Category B NLS cargo under the old scheme, but the ship would not have required a prewash unless the quantity of the original cargo loading (typically in the cargo tank and piping systems but also in bilges and other slops) exceeded the greater of 1 cubic meter or 1/3000th of the tank capacity. The requirements after discharge of a Category C NLS cargo would have been similar to those for Category B, but the limit on the allowable quantity of cargo remaining would have been the greater of 3 cubic meters or 1/1000th of the tank capacity. The Annex placed no limits on the quantities of Category D NLSs which could have been discharged to the sea, and no reception facility requirements would have resulted from transporting Category D NLS cargoes.

To ensure that ships would have disposal facilities for the slops produced from the preliminary tank washing required when the NLS residues exceeded that allowed to be discharged at sea, the Annex required the signatory governments to undertake to ensure the provision of reception facilities according to the needs of ships using its loading and unloading ports or terminals and in ship repair ports undertaking repairs to chemical tankers.

With the cooperation of the chemical industry, through the Coast Guard's

Chemical Transportation Advisory Committee, the U.S. analyzed the original Annex II system of requirements and tried them in actual shipboard use. This analysis led the Coast Guard to conclude that the original requirements were—

1. Unduly burdensome to ships' crews;
2. Not easily verified and thus difficult to enforce; and
3. Likely to result in a large and extremely expensive reception facility capacity.

Because of these problems, the U.S. presented arguments to IMO which led to the revision of Annex II with the goal of correcting these shortcomings. Of particular concern to the U.S. were the reception facility problems, which a position paper described as follows:

A number of existing ships have tanks which are fitted with inefficient pumping systems which will retain excessive quantities of residues (more than 1 or 3 cubic metres of residue for Category B and C substances respectively) even when easily pumpable noxious substances are carried. Under the present system, tanks containing these excessive residues must be prewashed and discharged to reception facilities. When Annex II is implemented these existing ships will generate an initial high demand for reception facilities that subsequently will decrease as these ships are encouraged to retrofit improved stripping capabilities due to the high cost of waste disposal or are replaced with newer ships having efficient stripping systems. *For many ports, provision of reception facilities, adequate to meet this initial demand, will be very costly and due to the decreasing demand, will not be cost effective.* While the United States recognizes that the need for reception facilities for Category B and C substances cannot be entirely eliminated, it is our view that this transient need for reception facilities should be minimized as much as possible at the time the Annex enters into force.

Annex II, as amended, requires the signatory nations to ensure that ships built after June 30, 1986 have efficient stripping systems on tanks used to carry Category B and C NLSs. Beginning in 1994, a similar requirement applies to tanks on ships built before July 1, 1986. Until 1994, tanks on these existing ships would be allowed to operate with somewhat larger residues than with the efficient stripping systems, but these residues remain below the limits allowed under the earlier version of the Annex (no more than 1 cubic meter of Category B cargo, 3 cubic meters of Category C). Because ships would not need to discharge most residues of Category B and C cargoes to reception facilities (the Annex does require "prewashing" of tanks that have offloaded high viscosity and solidifying cargoes and the discharge of the prewash water to a reception facility),

almost all capacity needed to handle Category B and C NLS residues would be eliminated. The amendments also reduce the enforcement burden the Annex places on signatory governments and the administrative burden it places on the ships' officers.

The amendments to Annex II have been approved by the signatory nations and will become effective April 6, 1987, the effective date of this final rule.

The final rule includes requirements developed by IMO that are contained in the *Standards for Procedures and Arrangements* (Resolution MEPC 18(22), 1985) (the Standards), and amendments to the *IMO Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk* (Resolution MEPC 19(22), 1985) and the *IMO International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk* (Resolution 20(22), 1985) (the last two codes collectively referred to as the Bulk Chemical Codes). The Standards contain detailed equipment and operating requirements developed to ensure uniform implementation of Annex II. The amendments to the Bulk Chemical Codes modify requirements for NLSs in that existing code and are intended to reduce the chance of accidental pollution from ships carrying NLSs in bulk. The U.S. implemented the Bulk Chemical Codes, without these amendments, in 46 CFR Part 153.

Discussion of Comments

The Coast Guard received 45 documents commenting on the NPRM. Many of the documents contained multiple comments. In addressing the comments, the Coast Guard has consolidated them as much as possible and has responded to them in general discussions on several topics, and, in many cases, in the discussion of specific sections.

Transfers Between Ships and Between Tanks on the Same Ship

Several comments have asked whether the regulations apply to transfers between ships or between tanks on the same ship. In the first instance, the transfer of cargo is an offloading, and the usual criteria apply when determining whether a prewash is required. If a prewash is required, the simplest way for a ship to deal with the prewash requirements when transferring to another ship would be to get a waiver to prewash in a "port" other than the offloading "port" under § 153.1119. The ship could then travel to the prewash port and prewash as usual. The prewash is required when a cargo is offloaded

but not when shifting cargoes between tanks. However, with the restriction on discharging any Category A residues except those from tank washing after a prewash, and with the limits on total quantity that can be discharged under § 153.1128, the Procedures and Arrangements Manual would need to treat these events with procedures as effective as a prewash.

Application of Requirements to Ships not Discharging While Underway

A number of comments suggested that the Coast Guard should not apply the NLS requirements to ships that do not discharge while underway. The Annex contains specific requirements covering ships that do not discharge. The Annex allows ships that have dedicated tanks to be relieved from many requirements (the waiver in § 153.491). It also waives efficient stripping systems for existing ships in domestic trade whose operators find reception facilities willing to take prewash residue (the waiver in § 153.483) and allows ships to be prewashed in a port other than the unloading port (§ 153.1119(c)). Additionally, the underwater discharge (§ 153.470) is needed only by those ships that discharge at sea. The Coast Guard believes these waiver provisions are sufficient, taken together, to relieve ship operators from most requirements in the Annex that are unnecessary for ships that do not discharge underway. New ships are still required to have efficient stripping systems, but the Annex retains these efficient stripping requirements for new ships to reduce the likelihood of violation and to minimize enforcement problems.

Viscosity Units

One comment suggested the value of viscosity in centipoise be listed next to the value in millipascal-seconds used in the proposal. The Coast Guard has chosen not to do this, but to add an entry in Appendix III of Part 153 giving the conversion from millipascal-seconds to centipoise; the conversion factor is 1, that is, the numerical value of the viscosity is the same in both sets of units.

Organization of the Regulations

Several comments questioned the organization for the proposal; specific complaints or questions were that Parts 151 and 153 should be kept separate and that the pollution rules should be placed together in Title 33 along with the oil pollution rules. The Coast Guard considered the option of devoting a part in either Title 33 or Title 46 wholly to Annex II requirements. The option of integrating the Annex into Part 153 was

selected because the Annex deals primarily with the design and operation of chemical tankers as does Part 153. Fewer cross-references to other parts and titles of the Code of Federal Regulations appear to be needed than with the alternatives, and Part 153 would require extensive changes regardless of where the Annex was placed. Placing the changes in Part 153 raised questions that would have been present with any organization but not evident until the implementation phase of the alternative choices.

The Coast Guard sees no virtue in keeping separate regulations for each possible vessel type and situation. The Coast Guard attempts to apply regulations that are appropriate to the vessel being regulated; if a set of regulations is appropriate for more than one type of vessel, the Coast Guard may put those vessels together under the same set of regulations. The Coast Guard is moving ocean-going barges that carry Category A, B, or C NLSs to Part 153 because the Annex applies the identical standards to both self-propelled and non-self-propelled chemical tankers carrying the same cargo. In most circumstances this is reasonable because the hazards do not change between the two types of vessels in the same environment. The differences between containment system requirements for a cargo carried under Part 151 and those for the same cargo carried under Part 153 are, for the most part, historical, not because of any difference in the nature of the hazard.

Application of MARPOL to Ships that are not Ocean-going

A number of comments were either related to the argument or argued that the Coast Guard was applying Annex II requirements to ships that were not ocean-going by moving cargoes from Parts 30 through 35 to Parts 151 and 153. This perception is a misunderstanding that the preamble to the NPRM discussed at length to avoid; the reevaluation of the cargoes was proposed under the authority to designate hazardous materials (49 U.S.C. 1804), not under the authority of the MARPOL implementing legislation. The Coast Guard has authority under 46 U.S.C. 3703 and other laws to issue regulations addressing environmental hazards as well as safety hazards. Nevertheless, to reduce the chance of confusing MARPOL requirements and any requirements the Coast Guard proposes for control of operational pollution from bulk cargoes in non-ocean-going trade in the future, the final rule is rewritten to omit any changes that would have affected ships other

than ocean-going ships. This has been done by creating a class of cargoes that, for the present, are regulated under Parts 30 through 35 on non-ocean-going ships and under Part 153 on ocean-going ships. Those cargoes are marked with bullets in Table 30.25-1.

Consultation with the Towing Safety Advisory Committee

One comment said that the Coast Guard should withdraw the proposed requirements affecting barges and present the requirements to the Towing Safety Advisory Committee (TSAC) instead. The Coast Guard did, in fact, discuss Annex II and its effect on barges with TSAC during the development of the Annex and the implementing regulations, though the discussion did not produce any noticeably negative response.

Definition of "Ocean-going"

Several comments suggested that the term "ocean-going" should be defined so as to exclude a larger group of domestic trading ships than in the proposal. Others suggested that the Annex II requirements should not apply to ships in coastwise trade. The proposal used the definition of "ocean-going" that applies to Annex I (oil pollution) regulations. The Coast Guard rejects the suggestion to change the definition of "ocean-going" because having one definition for Annex I and a second for Annex II regulations would make a difficult set of regulations even more difficult, while changing the definition in both annexes would have effects far beyond that intended by the proposal. The Coast Guard has modified the applicability of Part 153 so that non-self-propelled ships trading between U. S. ports can make protected coastwise voyages without coming under Part 153. Neither the Annex nor its implementing legislation contains a general exclusion from meeting the requirements of the Annex for coastwise ocean-going ships.

Discussion of Changes to the Proposal

Changes made to the contents of the Proposal are discussed by section below. Minor spelling corrections and typographical corrections are not discussed where they appear unlikely to have led to any misunderstanding of the proposal, nor are editorial clarifications that have no substantive effect.

Section 30.25-1 Cargoes carried in vessels certificated under the rules of this subchapter.

The table of cargoes regulated under Subchapter D has been modified to avoid any effect on non-ocean-going

barges. This change requires that some cargoes, the NLS cargoes, be regulated under Part 153 when on an oceangoing barge or on a self-propelled ship and under Parts 30 through 35 otherwise. The cargoes that are NLSs are marked with a bullet beside them. This change from the proposal is a reduction in burden and is intended to avoid the misconception that these cargo changes were done under MARPOL 73/78. Future changes to these cargoes and their requirements would be proposed in a separate NPRM under an authority other than MARPOL 73/78.

Subpart 98.31—Control of Pollution From NLS Cargoes on Offshore Supply Vessels.

A number of comments noted that the Coast Guard was applying rules to offshore supply vessels that were written for chemical tankers. The Coast Guard did not propose to change the coverage of Part 153 as it applies to ships carrying bulk cargoes listed in Table 1 of the part; Part 153 has always applied to such ships and continues to do so except for those NLS cargoes carried under Part 98 in a new subpart to be described next.

As it had proposed in the NPRM preamble, the Coast Guard has included a new Subpart 98.31 to Part 98 of Title 46, which applies to offshore supply vessels carrying bulk NLS cargoes. Subpart 98.31 relieves offshore supply vessels of almost all requirements related to NLSs if the vessels do not discharge NLS residues underway. For vessels that do discharge NLS residues underway, the regular NLS related requirements in Part 153 would apply.

The International Maritime Organization is developing standards for the carriage of hazardous materials on offshore supply vessels which the Coast Guard will consider when they are completed.

Section 151.01-1 Applicability.

Several comments complained that the applicability was difficult to understand. This section has been reworded slightly in an attempt to clarify it, but the applicability is necessarily complex to limit the part to the vessels it is intended to cover.

Some comments noted that the material replaced by the revised § 151.01-1 contains terms used elsewhere in the part but not defined. The Coast Guard is aware that Part 151 has a number of outdated references and unnecessary references scattered throughout and is attempting to correct these, though not in this rulemaking.

Section 151.01-15 Dangerous cargoes not specifically named.

One comment noted that, as this section was written, mixtures of Category D NLS cargoes could be carried under Parts 30 through 35 without obtaining Coast Guard requirements for the particular mixture. The Coast Guard has added a clarifying sentence to this section requiring such mixtures to be carried as a Category D NLS cargo unless the Coast Guard has determined the mixture not to be a Category D NLS. See the discussion of the changes to Table 1 of Part 153 for information on determining the NLS category of mixtures.

Table 151.05

The amendments to this table have been deleted from the final rule since the rule has been modified to eliminate any effects on non-oceangoing ships.

Subpart 151.12—Equipment and Operating Requirements for Pollution Control

One comment dealt with the safety of ventilation of residues. This question is dealt with under the discussion on § 153.486.

Section 151.12-5 Equipment for Category D NLS.

The introductory language to the section has been edited but there is no substantive change.

Section 151.12-10 Operation of oceangoing non-self-propelled ships Carrying Category D NLS.

References to two requirements (§ 153.1102 and 153.1132) applying to Category D NLSs were left out of paragraph (b) and have been added. The Coast Guard believes it likely these additions will have no impact. The first is the general restriction on disposal of NLS residues which has little or no impact on Category D cargoes. The second is the requirement to report spills of Category D cargoes, but such spills are typically reported under the reporting requirements of Title 33 and the addition should have little impact.

Part 153

One comment stated that the title of the part was misleading; it is changed to clarify what the part covers.

Section 153.1 Applicability.

This section is revised to clarify that the part applies to the carriage of bulk cargoes and to exclude offshore supply vessels carrying NLS cargoes under Part 98. See the discussion on changes to Part 98 of this chapter.

Several comments said that it was difficult to determine from the applicability whether the proposed changes would bring fixed and floating platforms under Part 153. This confusion was probably caused by the word *bulk* having been left out of the applicability. The part would apply to fixed or floating platforms only if they carried one of the hazardous materials as bulk cargo (rather than, say, as a ship's store). This change has no impact on the proposal since the proposal only concerned bulk carriage.

Section 153.2 Definitions and acronyms.

One comment noted that the definitions of "high viscosity NLS," "high viscosity Category B NLS," "high viscosity Category C NLS" and "solidifying NLS" were not quite the same as in the Annex. The Coast Guard had worded the proposed definitions to avoid the possibility that a cargo could be both high viscosity and solidifying. A side effect of this approach was to create the impression that a prewash would not be required after discharging a cargo that was "potentially solidifying" but not solidifying, even though the cargo was discharged at a viscosity exceeding values defining a high viscosity cargo. (The Coast Guard refers to cargoes for which viscosity or melting point information is required under § 153.908 as "potentially high viscosity" or "potentially solidifying" cargoes.) The Coast Guard did not intend to relieve people from prewash obligations by the proposed wording, and these definitions have been modified to follow the definitions used in the Annex more precisely and to implement the Annex more precisely, in accordance with the goal expressed in the NPRM. This change allows the high viscosity categories and the solidifying categories to overlap.

The *Standards for Procedures and Arrangements* ("Standards") from which these definitions are taken does not limit high viscosity to the 20 °C base temperature nor solidifying to the 0 °C base temperature the Coast Guard has used in its definitions. Other documents associated with the Annex require the shipper to furnish viscosity information only when the cargo's viscosity exceeds the trigger values (25 mPa sec or 60 mPa sec) at 20 °C; therefore, the definitions used in the *Standards* could result in the person in charge of a ship not having the viscosity information needed to determine whether the cargo was a high viscosity cargo at cargo temperatures below 20 °C. To correct this problem, the Coast Guard has limited the definition

of high viscosity to those cargoes which exceed the trigger values at 20 °C. Though perhaps not as pressing, a similar problem exists with "solidifying cargo" because there is no lower limit on the melting point in the *Standards* though melting point information is not required for all cargoes. In this case the Coast Guard has chosen a floor of 0 °C for the melting point of solidifying cargoes, which conforms to the parameters IMO used to determine for which cargoes the shipper would be required to supply melting point information. The Coast Guard will attempt to get an agreement with the other signatory countries on a resolution to both of these problems so that one can be assured of consistent definitions from country to country. If a change should be needed, the Coast Guard would propose it in an NPRM at a later date.

It is important to remember that a cargo is "high viscosity" or "solidifying" only at the time of unloading. Since the unloading temperature must be determined at that time, it may not be possible to predict ahead of time whether a cargo will be "high viscosity" or "solidifying."

Several comments stated that the definition of "cycle" was unclear. A definition similar to that used in the Annex is substituted. No substantive change is intended.

Section 153.7 Ships built before December 27, 1977 and non-self-propelled ships built before July 1, 1983: application.

The text proposed to clarify the existing paragraphs of this section would have omitted certain restrictions on ships eligible for "grandfathering," restrictions which the Coast Guard believes require further evaluation. For this reason, the existing text is retained, while the proposed paragraph (e) has been redesignated paragraph (d) and added to the section to accommodate "grandfathering" of non-self-propelled ships.

Paragraph (e) has been reworded to clarify it and make it more understandable. The proposed requirement that the ship have a hull type as shown for the cargo in Part 151 has been removed so that the ship would only need to have the hull type that applied to the cargo before the changes in this rulemaking. These changes have no impact beyond the reduction mentioned.

Section 153.10 Procedures for requesting alternatives and waivers; termination of waivers.

Paragraph (d)(3) was clarified by including procedures with the waiver conditions that must be followed to maintain the validity of a waiver.

Section 153.12 IMO Certificates for United States Ships.

The first occurrence of the word "built" in paragraphs (c) and (d) was changed to "contracted," the term used in MARPOL 73/78. The remaining occurrences of the word "built" are proper.

Section 153.15 Conditions under which the Coast Guard issues a Certificate of Inspection or Certificate of Compliance.

The reference to an administration issuing IMO Certificates in paragraphs (b)(2) and (b)(3) was clarified to refer to the administration as being signatory to MARPOL 73/78.

Section 153.40 Determination of materials that are hazardous.

One comment noted that some confusion was likely in having the definition of "hazardous material" and the determination of hazardous materials stuck in the middle of Part 153. The Coast Guard agrees but will not try to relocate the definition or improve the organization of the regulations with this particular project because a number of changes not in the proposal would be necessary. Others commented that the Coast Guard had suddenly included all sorts of extraneous cargoes under the term "hazardous materials." The definition of "hazardous material" that the Coast Guard has included with the other definitions in § 153.2 is taken directly from the revised and consolidated Title 46, the law granting most of the authority the Coast Guard uses in Part 153. The list of cargoes in § 153.40 that the Coast Guard has determined to be hazardous materials is essentially no different than a list made from the outdated definition of "dangerous cargo" used in 46 CFR Part 151 since 1970. The list essentially comprises those materials the Coast Guard has already listed in regulations covering hazardous materials and those materials that other agencies in the Department of Transportation have determined to be hazardous materials. Another commenter seemed to be under the impression that the Coast Guard would add new materials to the regulations without publishing a notice of proposed rulemaking. The Coast Guard is required by law to propose in a public notice any addition of cargoes to

the regulations and this is specifically pointed out in note 2 to the section, in both the proposal and the final rule.

Section 153.216 Shower and eyewash fountains.

This existing section was revised to allow the use of portable showers and eyewash fountains on non-self-propelled ships. Several comments requested this alternative because of the expense needed to meet the requirement on non-self-propelled ships, which typically do not have running water and often do not have power sources. The change reduces the burden on the ship owner while not significantly reducing the level of safety. The word "maintain" in paragraph (c)(2) was changed to "dispense" to be more precise.

Section 153.440 Cargo temperature sensors.

Several comments requested that the thermometer be allowed in the cargo tank's discharge line. The Annex and associated papers do not prescribe how one measures the cargo temperature when determining whether a cargo is high viscosity or solidifying. The Coast Guard has chosen to specify that the temperature measured should be that in the lower part of the cargo tank, which the Coast Guard believes is a reasonable implementation of the Annex's intent to ensure a low residue of those NLSs that tend to solidify on, or cling to, tank walls at lower temperatures. A thermometer in the discharge line may or may not give an indication of the temperature of the cargo in the tank, depending on whether the discharge line is heated or insulated, the length of the line, the ambient temperature, the cargo velocity through the line, the line cross-section, the cargo characteristics, and so forth. For these reasons, the Coast Guard has only conditionally accepted the comment. Proposed paragraph (a)(3) was changed to a performance standard that allows the use of a thermometer in the discharge line, but the responsibility for showing that a reading at this point would be representative of the temperature in the lower part of the cargo tank is left to the shipowner. The change widens the options available to the shipowner and reduces the regulatory burden as compared to the proposed wording.

Other comments requested that a portable thermometer be allowed. Paragraph (c) of this section in the present Part 153 allows the use of a portable thermometer with some restrictions. This paragraph is included in this rule with minor editorial changes

which do not affect the substance of the existing rule.

The proposed measuring procedure in § 153.908(d)(1) is modified to accommodate these changes.

Section 153.469 Application of §§ 153.470 Through 153.488.

This section was omitted from the final rule, and the application included in the individual sections.

Comments Applying To More Than one of §§ 153.470 Through 153.488.

A number of comments argued that the Coast Guard should waive pollution control equipment requirements on ships that do not discharge at sea. The Annex does not provide for any general waiver of pollution control equipment, only for dedicated cargo tanks or for ships built before July 1, 1986 that make only "restricted voyages." Both of these waivers were included in the proposal, the first under § 153.491, the second under § 153.483. The proposed text of these two sections has been clarified and simplified; see the discussion on these two sections below.

Section 153.470 System for Discharge of NLS Residue to the Sea: Categories A, B, C, and D.

Several comments suggested that the underwater discharge system should not be required on ships that do not discharge NLS residue to the sea. The introductory language to this section is modified to clarify that the residue discharge system is required only if the ship is to discharge residues to the sea under § 153.1126 or § 153.1128. The reworded section follows the requirement of the Annex more precisely than the wording of the proposal.

Other comments said that the requirement to have an underwater discharge system on "existing ships" by January 1, 1988 gives insufficient time to have the discharge designed and installed. This date comes from the Annex. The Coast Guard will monitor the progress of implementation of the regulation.

Section 153.481 Stripping Quantities and Interim Standards for Category B NLS Tanks on Ships Built Before July 1, 1986: Category B.

Minor editorial changes were made in proposed paragraph (b) and proposed paragraph (b)(4)(i) without changing the substance of the rule.

Section 153.483 Restricted Voyage Waiver for Category B and C NLS Tanks on Ships Built Before July 1, 1986: Category B and C.

The title was changed to refer to the equivalent topic in Annex II, and a note was added to point out the restriction that Annex II requires to be entered on the Certificate of Inspection. The language added to the certificate reiterates the conditions of the waiver and imposes no additional requirement.

Some changes to the proposed language have been made in the information required and the conditions necessary to obtain a waiver. These changes reduce the amount of information that is required and make the waiver more useful for ships that do not wash tanks at sea, reducing the burden on the ship operator.

Section 153.484 Prewash Equipment.

Several comments stated that the requirement that the prewash equipment cover "all" surfaces was excessive or unclear. Although the documents associated with the Annex use the term "all," the Coast Guard has changed the proposal by specifying coverage of all surfaces not obstructed by tank structure. With 100% coverage impractical in many tanks the Annex is clearly intended to cover and with no discussion of coverage in the Annex, the Coast Guard believes the wording in the final rule is practical, meets the goals of the Annex, and causes no increased burden as compared to the proposed wording.

One comment stated that the hot water temperature should be specified as it leaves the water heater. The Coast Guard disagrees. Specifying the water temperature as it leaves the washing machine nozzle is a performance standard on the wash water system; it is the least restrictive specification the Coast Guard can make and still meet the contents of the Annex. To specify the hot water temperature at the heater would require that the Coast Guard specify a higher temperature than may be necessary to ensure that the wash water was at the correct temperature when it left the nozzle. Such a specification would offer no encouragement for improving the piping insulation and reducing other sources of heat loss in the piping system.

Another comment asked that prewash equipment not be required unless the ship washed tanks underway. The Coast Guard agrees that to require the ship to carry tank washing equipment would be unnecessary if the ship operator could show that the equipment would be available at the ports and terminals at

which the ship would prewash. The introductory language of the section has been changed to allow this relieving option.

One comment proposed that the Coast Guard approve the tank washing machines to be certain they produced the coverage and flow necessary to achieve the type of prewash envisioned in the Annex. The Coast Guard believes such an approval program to be unnecessarily complex and restrictive to institute at this time. If experience should show that a certification program might be the best way to ensure proper prewashes, the Coast Guard would reconsider.

Section 153.486 Design and Equipment for Removing NLS Residue by Ventilation: Categories A, B, C, and D.

Proposed paragraph (b) required the portable ventilation equipment to be able to ventilate the extremities of the tank but did not reference the requirement in § 153.490(b)(3) that the Procedures and Arrangements Manual prescribe ventilation procedures that meet Appendix C of the IMO Standards for Procedures and Arrangements. This clarifying reference was added to paragraph (b).

One comment asked whether the means of detecting whether liquid remained in the tank after ventilation could be a simple visual check. This section has been modified specifically to allow a simple visual check, using either the ventilation openings or other openings. The change agrees with the Annex and was intended by the proposal.

Several people questioned the safety of ventilation because of the possible toxicity and flammability hazards it presents. The Coast Guard did not seek to evaluate ventilation with respect to these hazards in the proposal. The proposal contained nothing affecting the use of ventilation but only prescribed to what extent and under what circumstances ventilation could be assumed to clean a tank for the purposes of Annex II. Because of the limit on vapor pressure of cargoes that are allowed to be removed by ventilation for the purposes of Annex II and because of the limited number of ships affected by these regulations, the Coast Guard does not believe there will be any noticeable effect on the frequency with which ventilation is used to remove cargo residues. If experience indicates that these practices require further regulations to control hazards, they will be subject to further rulemaking.

The EPA also requested that the Coast Guard add a note advising that state and local governments may have environmental restrictions that would affect whether one could remove residues by ventilation. Several notes to this effect have been added.

Section 153.488 Design and equipment for tanks carrying high melting point NLSs: Category B.

Several comments either complained that barges did not typically have power sources for heating cargo aboard or inquired as to whether heat could be supplied from shore. Proposed paragraph (a) has been reworded to allow heat sources to be located other than on the ship. This removes a restriction and leaves with the ship operator the economic decision whether to carry the heat source with the ship.

Section 153.491 Waiver of certain equipment for dedicated cargo tanks.

One comment noted that proposed paragraph (b), in waiving all of § 153.490, would have waived the requirement for a Cargo Record Book in certain cases not allowed in the Annex. It was not the Coast Guard's intention to propose less than the Annex requires in this respect, and this section has been reworded so that the Cargo Record Book is required even though the equipment requirements have been waived; the section now agrees with the Annex.

Several minor editorial corrections and changes have been made to this section.

Section 153.900 Certificates and authorization to carry a bulk liquid hazardous material.

Several comments noted that the references in proposed paragraph (a) to sections of Title 33 were incorrect, and these have been corrected.

Proposed paragraph (a)(4)(ii) has been reworded to limit the requirement to have an IMO Certificate of Fitness to those non-self-propelled ships in waters of a foreign country signatory to MARPOL 73/78. One comment noted that the proposal, in requiring a Certificate of Fitness in any foreign waters, exceeded the MARPOL 73/78 requirement to have a Certificate of Fitness when carrying Category A, B, or C cargo in the waters of another signatory country. Paragraph (a)(4)(i), applying to self-propelled ships in any foreign waters, combines the MARPOL 73/78 requirement with the broader requirement under SOLAS which applies to self-propelled ships in any foreign waters.

Section 153.901 Documents: Posting, availability, and alteration.

One comment pointed out that barges did not have wheelhouses. Paragraphs (a) and (b) have been changed to allow the documents to be carried on any location on the ship.

Section 153.906 Reporting equipment failures and replacing equipment.

Several comments said that the proposal to report all equipment failures was excessive. The contents of this section have been moved to § 153.1130, and the reporting requirement limited to pollution related equipment.

Section 153.908 Cargo viscosity and melting point information; measuring cargo temperature during discharge: Categories A, B, and C.

One comment inquired as to whether the exact viscosity of the cargo being shipped was necessary or whether an average or representative value could be used. In the case of mixtures, particularly, furnishing an exact viscosity at the time of shipment would require testing each tank of cargo. The intent of the Annex and the intent of the Coast Guard in its proposal is that the ship operator have the information necessary to determine whether a cargo is a high viscosity or solidifying cargo. Using a representative or average value for the melting point or high viscosity transition temperature would be inadequate because it could result in the incorrect handling of a large number of these cargoes. However, a maximum melting point or maximum temperature of transition to high viscosity would err on the conservative side and would be perfectly acceptable. The basic responsibility lies with the shipper to ensure that the information furnished the ship operator will ensure proper handling, that is, that it would more likely result in unloading at a slightly higher rather than lower temperature than would be necessary were the exact characteristics of the cargo known. The shipper retains the option of supplying exact characteristics.

Section 153.909 Completing the Cargo Record Book and record retention: Categories A, B, C, and D.

One comment noted that proposed paragraph (b) should include the authorities in a foreign country signatory to MARPOL if a U.S. ship is in its waters if the proposal is to implement the Annex precisely. A change has been made in this section that adds the Administration of the signatory government as the entity for whom the Cargo Record Book must be available

when a U.S. ship is in the waters of that country. Although this requirement would also be made by the administration of the signatory country, the Coast Guard believes the modified language will help to avoid confusion when a U.S. ship is in one of these foreign ports, where the Administration of that country is the logical substitute for the Coast Guard.

Several of those commenting mistook the wording of proposed paragraph (c) to require a Surveyor to oversee each of the operations in paragraph (a). Such a requirement would be far in excess of the requirements in the Annex and those intended by the Coast Guard. This has been reworded to clarify that the Surveyor need sign the Cargo Record Book entry only on those occasions for which the regulations require the Surveyor's presence.

Section 153.1101 Procedures for getting a Surveyor; approval of Surveyors.

One comment suggested that the Coast Guard should discuss the cost of a private Surveyor. The Coast Guard has no cost data on private Surveyors since no Surveyors exist at this time; it is likely that a Surveyor will charge rates similar to what a Marine Chemist or a cargo surveyor charges.

Another comment said that the Coast Guard should have included some means for the person in charge of the ship to act as Surveyor. The Coast Guard disagrees. Under the Annex and these regulations, the person in charge is required to follow the procedures in the regulation; the Surveyor's function is to act as witness and as a check to verify that the person in charge is complying. It would be pointless were the person in charge and the Surveyor the same person.

Several comments suggested additional qualifications for Surveyors or changes in qualifications for Surveyors. The Coast Guard has not changed the description of the qualifications of the surveying organizations from the NPRM but is considering these comments. If it appears necessary to modify the qualifications of surveying organizations, a separate rulemaking will be initiated.

Section 153.1102 Handling and disposal of NLS residue: Categories A, B, C, and D.

The number of ways in which to deal with NLS residues has been increased in response to questions about how contaminated cargoes are to be dealt with. Since the definition of NLS residues includes cargo that is not

unloaded because it fails to meet the consignee's specifications, the Coast Guard has explicitly included returning the cargo to the shipper or discharging the cargo to another consignee among the permissible ways of disposing of such a cargo. These changes reduce the regulatory burden by increasing the options available to the ship operator.

Several comments noted that NLSs might be discharged under an EPA regulation. The Coast Guard recognizes that conflicts may arise under different laws and programs. This particular set of requirements implements MARPOL 73/78 and the Act, and there may be other laws and implementing regulations that allow the discharge of materials, some of which may be NLSs, under the controls specified in those laws. The Coast Guard believes it impractical and unnecessary to attempt to resolve all possible conflicts by these regulations, and will continue to consult with EPA and other organizations as specific instances arise.

The requirement that a Surveyor participate in the decision whether to remove residue by ventilation has been omitted from proposed paragraph (b) since it is covered by § 153.1114.

Section 153.1104 Draining of cargo hose: Categories A, B, C, and D.

The term "transfer terminal" is replaced by "receiver of the cargo" to cover all instances of cargo offloading. The Coast Guard believes this term to be clearer than the proposed term.

Section 153.1106 Cleaning agents.

In response to several comments about certain residues that cannot be cleaned with water, this section is reworded to allow alternatives to be prescribed in the approved Procedures and Arrangements Manual. See the discussion on § 153.1120 for more about non-water prewashes.

Section 153.1108 Heated prewash for solidifying NLS and high viscosity NLS: Categories A, B, and C.

Several comments suggested that the section implied a second prewash if another section required a prewash for a different reason, for example, if the cargo were a Category A NLS. This section was edited to clarify the requirements applying to heated prewashes. No substantive changes were made in the reworded text.

Section 153.1114 Conditions under which a prewash may be omitted: Categories A, B, and C.

Some minor editorial changes have been made. A new paragraph (c) has been added to enable the prewash to be

omitted when the ship is not self-propelled, does not discharge at sea, and does not carry NLSs to foreign ports. This change simplifies the procedures for and reduces the regulatory burden on ships that are operating under "restricted voyage" waivers (see § 153.483).

Section 153.1116 Prewash for tanks unloaded without following the approved Procedures and Arrangements Manual: Category B and C.

Several comments indicated that proposed paragraph (b) of this section was confusing and appeared to allow a ship to discharge more to sea than allowed under the Annex so long as a Surveyor approved. The section attempts to provide an alternative mechanism for handling tank residues when, for reasons such as pump failure, other equipment failure, or errors, the unloading procedures in the approved Procedures and Arrangements Manual are not followed. The alternative must leave no more residue in the tank, in the estimation of a Surveyor, than would the unloading procedures specified in the Procedures and Arrangements Manual (those in the Procedures and Arrangements Manual should leave an amount of residue in the tank and piping approximately equal to the stripping quantity determined under § 153.1604). The section has been reworded to clarify its purpose.

Section 153.1119 When to prewash and discharge NLS residues from a prewash: unloading an NLS cargo in a country not signatory to MARPOL: Categories A, B, and C.

A number of comments complained that the proposals applying to ships that did not discharge to the sea were too cumbersome. Changes have been made to simplify the proposals applying to ships not discharging at sea, while still meeting the requirements in the Annex. One of the simplifications has been to rewrite the alternate port prewash described in this section. The proposal to get approval from Commandant (G-MTH) has been replaced by a requirement to get approval from the Coast Guard Captain of the Port if the prewash port is in the U. S. The Annex requires that the government granting approval to prewash in another port have written confirmation that reception facilities are available in the prewash port, a requirement that the Coast Guard does not wish to delegate to Coast Guard field units when the transaction is with a foreign government. A telephone number for the Commandant (G-MTH) has been included to help speed approval in these cases.

Several people raised the question of how a U. S. ship operator deals with Annex II requirements when unloading at ports or terminals in countries not signatory to MARPOL 73/78. The only significant requirement that might not be possible to meet in a non-signatory country would be the prewash requirement since the prewash water must be discharged to a reception facility. A provision has been added to get a waiver from Commandant (G-MTH) to prewash in another port when the prewash requirement occurs in a country that does not have reception facilities. This change simply points out an obvious occasion when this alternative must be provided for.

Section 153.1120 Procedures for tank prewash: Categories A, B, and C.

The introductory language added and the change to the introductory language of proposed paragraph (a) and (b) are editorial. Paragraphs (a)(3) and (b)(3) were clarified by enumerating stripping equipment as part of the cargo pump and piping. Paragraphs (a)(4) and (b)(5) were changed to leave to the Procedures and Arrangements Manual the specification of number of washing machines and whether washing machines need to be moved. These shift the difficulty of determining whether "all" surfaces have been prewashed to the review of the Procedures and Arrangements Manual, where it is more tractable. Paragraph (a)(6) was modified so that the Surveyor takes the sample but is not required to do the sample testing, the exact arrangement in the Annex. The procedure in paragraph (b) was elaborated to clarify that the tank has to be pumped out at the end of the prewash procedure. Finally, the requirement in paragraph (b) that a Surveyor be present for almost all prewashes was changed to require the Surveyor only for Category A prewashes; the Annex explicitly requires a Surveyor only for Category A prewashes. These changes either reduce the burden by allowing a greater number of options than the proposal or clarify the proposed wording without changing the burden.

Several comments expressed concern because the proposal did not discuss prewashing of tanks containing residues that cannot be washed using water. The Coast Guard agrees and has changed the introductory language to the description of the prewash procedure to allow the approved Procedures and Arrangements Manual to contain procedures for this possibility. In such cases it would be advisable for the Procedures and Arrangements Manual

to discuss the prewash in detail and to specify exactly what part of any series of washing steps is to be considered the prewash procedure so that the person in charge and the Coast Guard can determine when any required Surveyor might need to be present. Because no standard procedure for nonwater prewashes is in the material related to the Annex, the Coast Guard must determine whether the procedures in the Procedures and Arrangements Manual give results equivalent to those for a water prewash.

Table 3 in the proposal, now Table 153.1120 at the end of the section, was modified to correct references and to eliminate the requirement for additional prewash cycles for high viscosity cargoes.

Section 153.1126 Discharge of NLS residue from a slop tank to the sea: Categories A, B, C, and D.

An editorial change was made to the introductory language.

Section 153.1128 Discharge of NLS residue from a cargo tank to the sea: Categories A, B, C, and D.

A prohibition against discharging Category A residues other than from tank washing, more than 1m³ of any cargo tank loading of Category B cargo, and more than 3m³ of any cargo tank loading of Category C was added (with an allowance for large cargo tanks). The effect of adding these prohibitions is specifically to disallow the discharge of large quantities of cargo overboard, such as one might prefer to do with a contaminated cargo. Although these restrictions were not contained in the proposal, they are in the Annex and are the limits that the equipment and operating procedures required elsewhere in the proposal were designed to achieve. These added prohibitions will have no effect on any normal operations and are obviously within the concept of implementing the Annex. Adding these restrictions to the regulations simply emphasize the concept of the Annex and the results of the equipment and operating requirements.

The section was edited to make it easier to read and to correct cross-references.

Section 153.1130 Failure of slops discharge recording equipment; operating with, reporting failures, and replacing pollution equipment.

As described above, those requirements to report equipment failure have been reduced and combined in this section. A clarifying reference to the restriction in § 153.1126(b) that limits the

rate of discharge of certain residues is added to paragraph (c)(1) of this section. This added reference clarifies that the restrictions in § 153.1126 apply even when the discharge recording equipment fails.

Section 153.1600 Equipment required for conducting the stripping quantity test.

Proposed paragraph (a) has minor clarifying changes.

Section 153.1602 Test procedure for determining the stripping quantity.

A requirement to have a Coast Guard inspector witness the stripping test was added. The Coast Guard believes that the necessity for the Coast Guard's witnessing the stripping test is obvious and comparable to the need to verify the other requirements of the rule. Incorrect cross-references were corrected, but these should have no impact.

Table 1 of Part 153

Some comments noted that cargoes carried as oil-like cargoes on oil tankers would have less stringent requirements, for example, open gauging, than the same cargoes carried on Part 153 tankers, for example, restricted gauging. This unevenness in requirements results from the differing treatment of cargo hazards under SOLAS and under the hazard evaluation scheme for the Bulk Chemical Codes. Accordingly, the comments were not accepted.

Some mixtures of cargoes listed in Table 1 cover ranges of composition that may cause them to overlap two or more adjacent NLS categories. The categories shown in the table are the highest for the allowable composition. Both the Coast Guard and IMO are working on the final stages of a calculation procedure that would enable a shipper to determine the actual NLS category of a mixture by calculating a weighted average of the categories of each component of the mixture. Until the calculation procedure can be proposed, the Coast Guard will allow shippers to use the calculation to determine categories of mixtures on an interim basis. The procedure can be obtained by contacting Commandant (G-MTH-1), U.S. Coast Guard, Washington, DC 20593, telephone (202) 267-1577. This change will simplify requirements for those shipping mixtures that vary in composition and will have no effect on any others.

The changes made in Table 1 of this final rule from the Table contained in the proposal are shown in boldface. These changes comprise moving cargoes to a less stringent pollution category and moving cargoes to a less stringent

containment system type. Cargoes having a reduction in pollution category and in containment system type are those for which new data shows their pollution hazards to be less than previously thought.

The notation "III" in the "IMO Pollution Category" column means that the cargo is not an NLS. The "III" refers to Appendix III of the Annex, where such cargoes are listed.

Table 2 of Part 153

The table of "unregulated" cargoes, that is, cargoes that are not regulated when shipped as bulk liquids under Title 46, are listed in Table 2.

Regulatory Evaluation

These regulations are not considered to be major under Executive Order 12291 nor significant under DOT regulatory policies and procedures (44 FR 11034; February 26, 1979). A final evaluation has been prepared and placed in the public docket.

The benefit of the regulations is to reduce the quantities of noxious liquid substances discharged into the marine environment, both from ship operations and ship accidents. The particular approach chosen in Annex II of MARPOL 73/78 achieves these benefits with only minor increases in ship design costs, operating costs, personnel costs, and operating complexity. The final evaluation projects an estimated cost for the rule of approximately \$4,600,000 in design and equipment cost with a recurring annual cost of approximately \$1,900,000 including depreciation of the design and equipment costs, maintenance costs, slops disposal costs, ship delay costs, administrative costs, and effects of improved cargo recovery.

Regulatory Flexibility Analysis

The Coast Guard certifies that this rule will not have a significant economic impact on a substantial number of small entities. The size and sophistication of the ships affected by this final rule are such that their cost ranges from several million to over \$100 million. The daily operating costs can range from about \$5000 for an oceangoing barge to \$25,000 for a manned ship. The Coast Guard concludes that no company having capital and operating costs of this size is a "small entity."

Environmental Analysis

The environmental analysis shows the rule will have a beneficial effect on the environment by reducing the discharge of cargo tank washings to the sea. The amount of Category A cargo that would no longer be discharged to the sea by

U.S. flag ships under the rule is estimated to be 16,000 liters yearly. The amount of Category B and C cargo that would no longer be discharged to the sea by U.S. flag ships because of better cargo recovery from efficient stripping systems is estimated to be 3,000,000 liters per year. The amount of Category B and C cargo that would no longer be discharged to the sea by U.S. flag ships because of prewash requirements is estimated to be 85,000 liters per year.

Because most trade in noxious liquid substances moves in foreign flag tankers, the greatest benefit to the United States will probably come from the implementation of Annex II of MARPOL 73/78 by other nations whose ships either trade in the U.S. or pass near U.S. waters in their trade with neighboring countries. The implementation of Annex II of MARPOL 73/78 by the United States, though having a smaller impact than implementation by other nations, is crucial in gaining worldwide acceptance of the convention. Nevertheless, because the amount of cargo discharged by U.S. flag ships through tank washing is small relative to that discharged by ships of other nations and the ability of the oceans to absorb such discharges, the Coast Guard has determined that the regulation, if adopted, would not have a significant impact on the environment.

Paperwork Reduction Act

This rule contains information collection requirements in §§ 153.3, 153.8, 153.10, 153.12, 153.483, 153.490, 153.491, 153.900, 153.901, 153.1119, 153.1120, and 153.1132. It contains recordkeeping requirements in §§ 153.490, 153.900, 153.901, 153.909, 153.1114, 153.1116, 153.1120, 153.1130. These have been submitted to the Office of Management and Budget (OMB) for approval under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*) and have been approved under RCS/OMB number 2115-0089.

List of Subjects

46 CFR Part 30

Cargo vessels, Foreign relations, Hazardous materials transportation, Penalties, Reporting and recordkeeping requirements, Seamen.

46 CFR Part 98

Cargo vessels, Hazardous materials transportation, Marine Safety.

46 CFR Part 151

Cargo vessels, Hazardous materials transportation, Marine Safety, Reporting and recordkeeping requirements.

46 CFR Part 153

Cargo vessels, Hazardous materials transportation, Marine Safety, Reporting and recordkeeping requirements.

46 CFR Part 172

Cargo vessels, Hazardous materials transportation, Marine Safety.

In consideration of the foregoing, Chapter 1 of Title 46, Code of Federal Regulations, is amended as follows:

PART 30—[AMENDED]

1. The authority citation for Part 30 is revised to read as follows and removing the authority citations following the sections throughout the part.

Authority: 46 U.S.C. 3507, 3703; 49 U.S.C. 1804; 49 CFR 1.46 (n)(4) and (t).

2. By revising § 30.25-1 to read as follows:

§ 30.25-1 Cargoes carried in vessels certificated under the rules of this subchapter.

The cargoes listed in Table 30.25-1 have been found to be flammable or combustible and may be transported in bulk only in vessels certificated under the rules of this subchapter. Cargoes having a bullet beside the cargo name in Table 30.25-1 may be carried under this subchapter only if the cargo is carried on a non-self-propelled vessel and the vessel is excluded by § 153.1 of this chapter.

Table 30.25-1—List of Flammable and Combustible Bulk Liquid Cargoes

Acetone
Acetophenone
Acetyl tributyl citrate
Alcohols (mixed)
Alkenylsuccinic acid
Alkenylsuccinic anhydride
Alkyl benzene sulfonic acid (4% or less)
Alkyl phthalates (n-)
Alkyl succinate formaldehyde hydroxy amino condensate (3.2% or less)
•Amyl acetate (iso-, n-)
Amyl alcohol (n-)
Amylene
Amyl methyl ketone
Amyl tallate
Asphalt
Asphalt blending stocks:
Roofers flux
Straight run residue
Behenyl alcohol
•Benzyl alcohol
Bicyclic terpenel polyamine amide salt
Butane
•Butyl acetate (iso-, n-, sec-)
Butyl alcohol (iso-, n-, sec-, tert-)
•Butyl benzyl phthalate
Butylene
1,3-Butylene glycol
Butylene polyglycol
Butyl heptyl ketone
Butyl methyl ketone
Butyl stearate

Butyl toluene
Butyrolactone (gamma)
Calcium alkylphenate
Calcium alkyl salicylate
Calcium amino nonyl phenolate
Calcium carboxylate
Caprolactam solutions
Carbon black base
Cetyl alcohol (Hexadecanol)
Cetyl stearyl alcohol
Cleaning spirit (unleaded)
•Cumene
Cycloaliphatic resins
•Cyclohexane
•Cyclohexanol
Cyclopentadiene polymers
•Cymene (para-)
Decaldehyde (iso-, n-)
Decane
•Decene
•Decyl alcohol (iso-, n-)
Decyl benzene (n-)
Detergent alkylate
Diacetone alcohol
Dibutyl carbinol
•Dibutyl phthalate (ortho-)
Dicyclopentadiene
•Diethyl benzene
Diethylene glycol
Diethylene glycol butyl ether
Diethylene glycol butyl ether acetate
Diethylene glycol diethyl ether
Diethylene glycol ethyl ether
Diethylene glycol ethyl ether acetate
•Diethylene glycol methyl ether
Diethylene glycol methyl ether acetate
Diethylene glycol phenyl ether
Di(ethylhexyl) phthalate
•Diethyl phthalate
•Diglycidyl Ether of Bisphenol A
Diheptyl phthalate
Diethyl phthalate
Diisobutyl carbinol
•Diisobutylene
Diisobutyl ketone
•Diisobutyl phthalate
Diisodecyl phthalate
Diisononyl phthalate
Diisooctyl phthalate
•Diisopropyl benzene
Diisopropyl naphthalene
Dimethyl benzene
•Dimethyl phthalate
Dimethyl polysiloxane
2,2-Dimethylpropane-1,3-diol
Dinonyl phthalate
Di(octylphenyl)amine
Diocetyl phthalate
•Dipentene
•Diphenyl
•Diphenyl-Diphenyl oxide
•Diphenyl ether
Dipropylene glycol
Dipropylene glycol dibenzoate
Dipropylene glycol methyl ether
Distillates:
Flashed feed stocks
Straight run
Diundecyl phthalate
•Dodecylphenol
Epoxylated linear alcohols, C11-C15
Ethane
Ethoxyethanol
•Ethoxyethyl acetate
Ethoxylated alcohols, C11-C15

- Ethoxy triglycol (crude)
- Ethyl acetate
- Ethyl alcohol
- Ethyl amyl ketone
- Ethyl benzene
- Ethyl butanol
- Ethyl cyclohexane
- Ethylene
- Ethylene carbonate
- Ethylene glycol
- Ethylene glycol butyl ether
- Ethylene glycol butyl ether acetate
- Ethylene glycol diacetate
- Ethylene glycol ethyl ether
- Ethylene glycol ethyl ether acetate
- Ethylene glycol isopropyl ether
- Ethylene glycol methyl butyl ether
- Ethylene glycol methyl ether
- Ethylene glycol methyl ether acetate
- Ethylene glycol phenyl ether
- Ethylene-Propylene copolymer (in liquid mixtures)
- Ethylhexaldehyde
- Ethylhexanoic acid
- 2-Ethyl hexanol
- Ethylhexoic acid
- Ethyl hexyl phthalate
- Ethyl hexyl tallate
- Ethyl toluene
- Fatty acid amides
- Formamide
- Furfuryl alcohol
- Gas oil, cracked
- Gasoline blending stocks:
 - Alkylates
 - Reformates
- Gasolines:
 - Automotive (containing not over 4.23 grams lead per gallon)
 - Aviation (containing not over 4.86 grams lead per gallon)
 - Casinghead (natural)
 - Polymer
 - Straight run
- Glycerine
- Glycerol
- Glyceryl triacetate
- Glycidyl ester of tertiary carboxylic acid
- Glycidyl ester of versatic acid
- Glycol diacetate
- Glycols, Resins, & Solvents mixture
- Glycol triacetate
- Glyoxal (40%)
- Grease
- Heptadecane
- Heptane
- Heptanoic acid
- Heptanol
- Heptene
- Herbicide (C15 -H22 -NO2-Cl)
- Hexaethylene glycol
- Hexamethylene glycol
- Hexane (iso-, n-)
- Hexanol
- Hexene
- Hexyl acetate
- Hexylene glycol
- Hog grease
- Isophorone
- Jet fuels:
 - JP-1 (kerosene)
 - JP-3
 - JP-4
 - JP-5 (kerosene, heavy)
- Kerosene
- Lactic acid
- Lard
- Latex, liquid synthetic
- Magnesium nonyl phenol sulfide
- Magnesium sulfonate
- Maleic anhydride copolymer
- 2-Mercaptobenzothiazol (in liquid mixtures)
- Methane
- Methoxy triglycol
- Methyl acetate
- Methyl acetoacetate
- Methyl alcohol
- Methyl amyl acetate
- Methyl amyl alcohol
- Methyl amyl ketone
- Methyl butanol
- Methyl ethyl ketone
- Methyl formal (dimethyl formal)
- Methyl heptyl ketone
- Methyl isobutyl carbinol
- Methyl isobutyl ketone
- Methyl naphthalene
- Methyl pentene
- Methyl pyrrolidone (N-)
- Methyl tert-butyl ether
- Mineral spirits
- Naphtha:
 - Aromatic (10% or less Benzene)
 - Cracking fraction
 - Heavy
 - Paraffinic
 - Petroleum
 - Solvent
 - Stoddard Solvent
 - Varnish makers' and painters' (75%)
- Naphthenic acid
- Nonane
- Nonanoic acid
- Nonanoic, Tridecanoic acid mixture
- Nonene
- Nonyl alcohol
- Nonyl phenol
- Nonyl phenol (ethoxylated)
- Nonyl phenol sulfide (90% or less)
- Octadecene
- Octadecenoamide (oleamide)
- Octane
- Octene
- Octyl acetate
- Octyl alcohol (iso-, n-)
- Octyl aldehyde (iso-)
- Octyl epoxytallate
- Octyl phthalate
- Oil:
 - Absorption
 - Aliphatic
 - Animal
 - Aromatic
 - Aviation F2300
 - Clarified
 - Coal
 - Coal tar
 - Croton
 - Crude
 - Diesel
 - Fuel oils:
 - No. 1 (kerosene)
 - No. 1-D
 - No. 2
 - No. 2-D
 - No. 4
 - No. 5
 - No. 6
 - Gas, low pour
 - Gas, low sulphur
 - Heartcut distillate
- Lanolin
- Linseed
- Lubricating
- Mineral
- Mineral Seal
- Motor
- Neatsfoot
- Oiticica
- Penetrating
- Perilla
- Pilchard
- Pine
- Range
- Residual
- Resin
- Resinous petroleum
- Road
- Rosin
- Seal
- Soapstock
- Sperm
- Spindle
- Spray
- Tall
- Tall, fatty acid
- Tanner's
- Transformer
- Tung
- Turbine
- Whale
- White (mineral)
- Wood
- Edible oils, including:
 - Babassu
 - Beechnut
 - Castor
 - Cocoa butter
 - Coconut
 - Coconut oil, esterified
 - Coconut oil, fatty acid
 - Coconut oil, methyl ester
 - Cod liver
 - Corn
 - Cotton seed
 - Cotton seed, fatty acid
 - Fish
 - Grapeseed
 - Groundnut
 - Hazelnut
 - Lard
 - Maize
 - Mustard seed
 - Nutmeg butter
 - Olive
 - Palm
 - Peanut
 - Poppy
 - Raisin seed
 - Rapeseed
 - Rice bran
 - Safflower
 - Salad
 - Sesame
 - Soya bean
 - Soyabean (epoxidized)
 - Sunflower seed
 - Tucum
 - Vegetable
 - Walnut
- Oleic acid
- Oleyl alcohol (octadecenol)
- Organic amine 70 (mixture of high molecular weight alcohol amines)
- Pentadecanol
- Pentaethylene glycol

•Pentane (iso-, n-)
 •1-Pentene
 Petrolatum
 Phosphosulfurized bicyclic terpene
 Phthalate plasticizers
 •Pinene
 Polyalkenyl succinic anhydride amine
 Polyamine, amide mixture
 Polybutene
 Polyethylene glycols
 Polyisobutylene
 Polymerized esters
 Polypropylene
 Polypropylene glycol methyl ether
 Polypropylene glycols
 Polystyrene dialkyl maleate
 Propane
 Propyl acetate (iso-, n-)
 Propyl alcohol (iso-, n-)
 Propyl benzene
 Propylene
 Propylene butylene polymer
 Propylene glycol
 Propylene glycol ethyl ether
 Propylene glycol methyl ether
 Propylene polymer (in liquid mixtures)
 Propylene tetramer
 •Propylene trimer
 Psuedocumene (1,2,4-Trimethylbenzene)
 Rum
 Sodium acetate, Glycol, Water solutions
 Sodium sulfonate
 Stearic acid
 Stearyl alcohol (Octadecanol)
 Sulfolane
 Tallow
 Tallow alcohol
 Tallow fatty acid
 Tallow nitrile
 Tetradecanol
 Tetradecene
 Tetradecyl benzene
 Tetraethylene glycol
 •Tetrahydronaphthalene
 Tetrapropyl benzene
 •Toluene
 Triarylphosphate
 •Tributyl phosphate
 •Tricresyl (Tritolyl) phosphate (less than 1% ortho isomer)
 Tridecane
 Tridecanoic acid
 Tridecanol
 Tridecene
 •Tridecyl benzene
 •Triethyl benzene
 Triethylene glycol
 Triethylene glycol butyl ether mixture
 Triethylene glycol diethyl butyrate
 Triethylene glycol ether mixture
 Triethylene glycol methyl ether
 Triethyl phosphate
 Triisooctyl trimellitate
 •Trimethyl benzene
 2,2,4-Trimethylpentanediol-1,3-diisobutyrate
 2,2,4-Trimethyl-3-pentanol-1-isobutyrate
 Tripropylene
 Tripropylene glycol
 Tripropylene glycol methyl ether
 •Trixylenyl phosphate
 •Turpentine
 Turpentine substitute (White spirit)
 •Undecanol
 •Undecene
 Undecylbenzene

Vinyl acetate-fumarate copolymer

Waxes:

Candelilla
 Carnauba
 Paraffin
 Petroleum
 White spirit
 •White spirit, Low Aromatic
 Wine
 Wool grease
 •Xylene (meta-, para-, ortho-)
 Zinc dialkylthiophosphate

PART 98—[AMENDED]

3. By revising the authority citation for Part 98 to read as follows and removing the authority citations following the sections throughout the part.

Authority: 33 U.S.C. 1903(b), 46 U.S.C. 3306, 3703, 49 U.S.C. 1804; 49 CFR 1.46 (n)(4), (t), and (hh).

4. By amending Part 98 by adding a new Subpart 98.31 consisting of §§ 98.31-5 through 98.31-15 to read as follows:

Subpart 98.31—Control of Pollution from NLS Cargoes on Oceangoing Offshore Supply Vessels

Sec.

98.31-5 Applicability.
 98.31-10 Certificate of inspection endorsements.
 98.31-15 Operating requirements.

Subpart 98.31—Control of Pollution From NLS Cargoes on Oceangoing Offshore Supply Vessels

§ 98.31-5 Applicability.

This subpart applies to offshore supply vessels that are oceangoing as defined in 33 CFR 151.05(j) and that carry noxious liquid substances (NLSs) as defined in § 153.2 of this chapter in bulk, including carriage in marine portable tanks.

§ 98.31-10 Certificate of inspection endorsements.

(a) The Coast Guard issues the endorsed Certificate of Inspection or NLS Certificate required by § 98.31-15 for vessels under this subpart to carry NLSs if the vessel—

(1) Has the Cargo Record Book prescribed in § 153.490(a)(1) of this chapter; and

(2) Unless it discharges no NLS residues as defined in § 153.2 of this chapter to the sea, meets the requirements in § 153.470 through § 153.491 of this chapter.

(b) Vessels under this subpart that do not meet the requirements in § 153.470 through § 153.491 of this chapter have a statement on their Certificates of Inspection or NLS Certificates stating that the vessel is prohibited from discharging NLS residues to the sea.

§ 98.31-15 Operating requirements.

No person may operate a vessel that carries a bulk liquid cargo of NLS unless the vessel—

(a) Has on board a Certificate of Inspection and for ships making foreign voyages an NLS Certificate endorsed under § 98.31-10 with the name of the NLS cargo;

(b) Discharges no NLS residue to the sea unless the vessel meets—

(1) The equipment requirements in § 98.31-10(a)(2); and

(2) The operating requirements prescribed for oceangoing ships carrying NLSs in §§ 153.901, 153.903, 153.909, and 153.1100 through 153.1132 of this chapter.

5. By revising the authority citation for Part 151 to read as follows and removing the authorities following the sections throughout the part.

Authority: 33 U.S.C. 1903(b), 46 U.S.C. 3703; 49 CFR 1.46 (n)(4), (t), and (hh).

6. By revising the title of Part 151 to read as follows:

PART 151—BARGES CARRYING BULK LIQUID HAZARDOUS MATERIAL CARGOES

7. By revising § 151.01-1 to read as follows:

§ 151.01-1 Applicability.

This part applies to the following:

(a) Oceangoing, as defined in 33 CFR 151.05(j), non-self-propelled United States ships and non-self-propelled foreign ships operating in United States waters that carry a bulk cargo that is—

(1) Listed in Table 151.05;
 (2) Not being carried in a marine portable tank regulated under Part 98 of this chapter; and
 (3) Not an NLS or is an NLS cargo that is a Category D listed in § 151.12-5 of this part.

(b) All non-self-propelled United States ships that are not oceangoing that carry a bulk cargo that is—

(1) Listed in Table 151.05, and
 (2) Not being carried in a marine portable tank regulated under Part 98 of this chapter.

§ 151.01-3 [Removed]

8. By removing and reserving § 151.01-3.

§ 151.01-5 [Removed]

9. By removing and reserving § 151.01-5.

§ 151.01-10 [Amended]

10. By removing and reserving § 151.01-10(f).

11. By removing Table 151.01-10(f).
12. By revising § 151.01-15(c) to read as follows:

§ 151.01-15 Dangerous cargoes not specifically named.

(c) Mixtures or blends of two or more cargoes appearing in Table 151.01-10(d) may be treated as though that mixture were included on the list and may be transported under the provisions of Subchapter D of this chapter. If the mixture contains an NLS cargo listed in § 151.12-5, the mixture must be carried as a Category D NLS cargo unless the Coast Guard has determined the cargo not to be an NLS.

13. By adding a new § 151.03-30 to read as follows:

§ 151.03-30 Hazardous material.

In this part "hazardous material" means a liquid material or substance that is—

- Flammable or combustible;
- Designated a hazardous substance under section 311(b) of the Federal Water Pollution Control Act (33 U.S.C. 1321); or
- Designated a hazardous material under section 104 of the Hazardous Material Transportation Act (HMTA) (49 U.S.C. 1803).

Note.—The Environmental Protection Agency designates hazardous substances in 40 CFR Table 116.4A. The Coast Guard designates hazardous materials that are transported as bulk liquids by water in § 153.40.

14. By adding a new § 151.03-36 to read as follows:

§ 151.03-36 Liquid.

In this part "liquid" includes liquefied and compressed gases.

§ 151.03-55 [Removed]

15. By removing and reserving

§ 151.03-55.

16. By adding a new Subpart 151.12 consisting of §§ 151.12-5 and 151.12-10 to read as follows:

Subpart 151.12—Equipment and Operating Requirements for Control of Pollution From Category D NLS Cargoes

Sec.

- 151.12-5 Equipment for Category D NLS.
151.12-10 Operation of oceangoing non-self-propelled ships Carrying Category D NLS.

Subpart 151.12—Equipment and Operating Requirements for Control of Pollution From Category D NLS Cargoes

- § 151.12-5 Equipment for Category D NLS.**

The Coast Guard endorses the Certificate of Inspection and for ships

making foreign voyages issues the endorsed NLS Certificate required by § 151.12-10 for an oceangoing non-self-propelled ship to carry as bulk cargo the following Category D NLSs if the ship meets the requirements of this part and the requirements applying to ships that carry Category D NLS cargoes in §§ 153.470, 153.486, and 153.490 of this chapter:

Acrylic acid
Adiponitrile
Aminoethylethanolamine
n-Butyl acrylate
Butyl methacrylate
Caustic soda solution
Chlorohydrins, crude
Cyclohexanone
Diethylenetriamine
Dimethylethanolamine
Dimethyl formamide
1,4-Dioxane
Ethylcyclohexylamine
2-Ethylhexyl acrylate
Ethylene cyanohydrin
Ethyl methacrylate
Formic acid
Glutaraldehyde solution
Hydrochloric acid
Mesityl oxide
Methyl methacrylate
(mono) Ethanolamine
Morpholine
1- or 2- Nitropropane
Phosphoric acid
Polymethylene polyphenyl isocyanate
Propionic acid
Propylene oxide
iso-Propyl ether
Tetraethylene pentamine
Tetrahydrofuran
Triethanolamine
Triethylene tetramine
n-Valeraldehyde

§ 151.12-10 Operation of oceangoing non-self-propelled ships Carrying Category D NLS.

(a) An oceangoing non-self-propelled ship may not carry in a cargo tank a Category D NLS cargo listed under § 151.12-5 unless the ship has on board a Certificate of Inspection and for ships making foreign voyages an NLS Certificate endorsed under that section to allow the cargo tank to carry the NLS cargo.

(b) The person in charge of an oceangoing non-self-propelled ship that carries a Category D NLS listed under § 151.12-5 shall ensure that the ship is operated as prescribed for the operation of oceangoing ships carrying Category D NLSs in §§ 153.901, 153.909, 153.1100, 153.1102, 153.1104, 153.1106, 153.1124, 153.1126, 153.1128, and 153.1132 of this chapter.

17. By revising the authority citation for Part 153 to read as follows and removing the authorities following the sections throughout the part.

Authority: 46 U.S.C. 3703; 49 CFR 1.46(n)(4) except § 153.40 which is issued under 49 U.S.C. 1804; 49 CFR 1.46(t). Additional authority under 33 U.S.C. 1903(b); 49 CFR 1.46(hh) for §§ 153.470 through 153.491, §§ 153.1100 through 153.1132, and §§ 153.1600 through 153.1608.

18. By revising the title of Part 153 to read as follows:

PART 153—SHIPS CARRYING BULK LIQUID, LIQUEFIED GAS, OR COMPRESSED GAS HAZARDOUS MATERIALS

19. By amending Part 153 by removing the words "Table I" (Roman numeral) wherever they appear and inserting in their place the words "Table 1" (Arabic numeral).

20. By adding a new § 153.0 to read as follows:

§ 153.0 Availability of materials.

(a) Various sections in this part refer to the following documents which are incorporated in Annex II of MARPOL 73/78.

(1) *IMO Standards for Procedures and Arrangements for the Discharge of Noxious Liquid Substances*, Resolution MEPC 18(22), 1985 in effect on April 6, 1987.

(2) *IMO International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk*, Resolution MEPC 19(22), 1985 in effect on April 6, 1987.

(3) *IMO Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk*, Resolution MEPC 20(22), 1985 in effect on April 6, 1987.

(b) The IMO documents listed in this section are available from the following:

- IMO Secretariat, Publications section, 4 Albert Embankment, London SE1 75R, United Kingdom, Telex 23588;
- New York Nautical Instrument and Service Company, 140 West Broadway, New York, NY 10013;
- Baker, Lyman & Company, 308 Magazine Street, New Orleans, LA 70130;
- Labelmaster, 5724 N. Pulaski Road, Chicago, IL 60646;
- UNZ & Company, 170 Broadway, New York, NY 10038; and
- Southwest Instrument Company, 235 West 7th Street, San Pedro, CA 90731.

21. By revising § 153.1 to read as follows:

§ 153.1 Applicability.

This part applies to the following:

- (a) All United States self-propelled ships and those foreign self-propelled ships operating in United States waters

that carry in bulk a cargo listed in Table 1 or allowed in a written permission under § 153.900(b), unless—

(1) The ship is carrying the cargo under 33 CFR Part 151;

(2) The ship is carrying the cargo in a marine portable tank under Subpart 98.30 of this chapter; or

(3) The ship is an offshore supply vessel carrying the cargo under Subpart 98.31 of this chapter.

(b) All United States oceangoing non-self-propelled ships and those foreign non-self-propelled ships operating in United States waters that carry in bulk a Category A, B, or C NLS cargo listed in Table 1 or allowed in a written permission under § 153.900(b), unless—

(1) The ship is carrying the cargo under 33 CFR Part 151;

(2) The ship is carrying the cargo in a marine portable tank under Subpart 98.30 of this chapter;

(3) The ship is an offshore supply vessel carrying the cargo under Subpart 98.31 of this chapter; or

(4) The ship's Certificate of Inspection is endorsed for a limited short protected coastwise route and the ship is constructed and certificated primarily for service on an inland route.

(c) All ships that carry a bulk liquid, liquefied gas, or compressed gas cargo that is none of the following:

(1) Listed in Table 1.

(2) Listed in Table 2.

(3) Carried under a written permission granted under § 153.900(b).

(4) Carried under Parts 30 through 35, 98, 151, or 154 of this chapter.

(5) Carried as an NLS under 33 CFR Part 151.

22. In § 153.2, by revising the definitions of "IMO Certificate" and "tankship" and adding new definitions in proper alphabetical order to read as follows:

§ 153.2 Definitions and acronyms.

"Adequate reception facility" means each facility certified as adequate under 33 CFR 158.160 and each facility provided by a Administration signatory to MARPOL 73/78 under Regulation 7 of Annex II.

"Annex II" means Annex II to MARPOL 73/78 and is the Annex to MARPOL 73/78 regulating the discharge of noxious liquid substances to the sea.

"Built" means that a ship's construction has reached any of the following stages:

(1) The keel is laid.

(2) The mass of the partially assembled ship is 50,000 kg.

(3) The mass of the partially assembled ship is one percent of the estimated mass of the completed ship.

"Cycle," means that the tank washing machine progresses through complete rotations until it reaches an orientation identical to its starting orientation.

Note.—For a typical one or two nozzle tank washing machine that rotates in both the horizontal and vertical planes though more slowly in one than the other, a cycle would be at least one rotation in each plane of rotation.

"Hazardous material" means a liquid material or substance that is—

(1) Flammable or combustible;

(2) Designated a hazardous substance under section 311(b) of the Federal Water Pollution Control Act (33 U.S.C. 1321); or

(3) Designated a hazardous material under section 104 of the Hazardous Material Transportation Act (HMTA) (49 U.S.C. 1803).

Note.—The Environmental Protection Agency designates hazardous substances in 40 CFR Table 116.4A. The Coast Guard designates hazardous materials that are transported as bulk liquids by water in § 153.40.

"High viscosity NLS" includes Category A NLSs having a viscosity of at least 25 mPa.s at 20 °C and at least 25 mPa.s at the time they are unloaded, high viscosity Category B NLSs, and high viscosity Category C NLSs.

"High viscosity Category B NLS" means any Category B NLS having a viscosity of at least 25 mPa.s at 20 °C and at least 25 mPa.s at the time it is unloaded.

"High viscosity Category C NLS" means any Category C NLS having a viscosity of at least 60 mPa.s at 20 °C and at least 60 mPa.s at the time it is unloaded.

"IMO Bulk Chemical Code" includes the IMO *International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk*, Resolution MEPC 19(22), 1985 and the IMO *Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk*, Resolution MEPC 20(22), 1985.

"IMO Certificate" includes a Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk issued under the IMO *Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk*, Resolution MEPC 20(22), 1985 and an International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk issued under the IMO *International Code for the Construction and*

Equipment of Ships Carrying Dangerous Chemicals in Bulk, Resolution MEPC 19(22), 1985.

"IOPP Certificate" means an International Oil Pollution Prevention Certificate required under 33 CFR 151.19.

"Liquid" means each substance having a vapor pressure of 172 kPa or less at 37.8 °C.

"MARPOL 73/78" means the International Convention for Prevention of Pollution from Ships, 1973 (done at London, November 2, 1973), modified by the Protocol of 1978 relating to the International Convention for Prevention of Pollution from Ships, 1973 (done at London, on February 17, 1978).

"Master" means the person-in-charge of a self-propelled or non-self-propelled ship.

"Nearest land" has the same meaning as in 33 CFR 151.05(h).

"Noxious liquid substance" (NLS) means—

(1) Each substance listed in 33 CFR 151.47 or 33 CFR 151.49;

(2) Each substance having an "A," "B," "C," or "D" beside its name in the column headed "Pollution Category" in Table 1; and

(3) Each substance that is identified as an NLS in a written permission issued under § 153.900(c).

"NLS Certificate" means an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk issued under Annex II of MARPOL 73/78.

"Oceangoing" ship has the same meaning as in 33 CFR 151.05(j).

"Prewash" means a tank washing operation that meets the procedure in § 153.1120.

"Reception facility" means anything capable of receiving NLS residues in a country whose Administration is not signatory to MARPOL 73/78 and each adequate reception facility.

"Residues and mixtures containing NLSs" (NLS residue) means—

(1) Any Category A, B, C, or D NLS cargo retained on the ship because it fails to meet consignee specifications;

(2) Any part of a Category A, B, C, or D NLS cargo remaining on the ship after NLS is discharged to the consignee, including but not limited to puddles on the tank bottom and in sumps, clingage in the tanks, and substance remaining in the pipes; or

(3) Any material contaminated with a Category A, B, C, or D NLS cargo,

including but not limited to bilge slops, ballast, hose drip pan contents, and tank wash water.

"Ship" means a vessel of any type whatsoever, including hydrofoils, air-cushion vehicles, submersibles, floating craft whether self-propelled or not, and fixed or floating platforms.

"Slop tanks" include slop tanks and cargo tanks used as slop tanks.

"Solidifying NLS" means a Category A, B, or C NLS that has a melting point—

(1) Greater than 0 °C but less than 15 °C and a temperature, measured under the procedure in § 153.908(d), that is less than 5 °C above its melting point at the time it is unloaded; or

(2) 15 °C or greater and has a temperature, measured under the procedure in § 153.908(d), that is less than 10 °C above its melting point at the time it is unloaded.

"Special area" means the Baltic Sea Area as defined in 33 CFR 151.13(a)(2) and the Black Sea Area as defined in 33 CFR 151.13(a)(3).

"Tankship" has the same meaning as "ship".

23. By adding § 153.3 to read as follows:

§ 153.3 Appeals.

(a) Any person directly affected by an action taken under this part may request reconsideration by the Coast Guard official responsible for that action.

(b) Any person not satisfied with a ruling made under the procedure contained in paragraph (a) of this section by a Coast Guard official operating within a district may make a written appeal of that ruling, or an oral appeal as allowed under paragraph (d) of this section, to the Commander of the Coast Guard of that district. The appeal may contain supporting documentation and evidence that the appellant wishes to have considered. If requested to do so, the District Commander may stay the effect of the action being appealed while the ruling is reviewed. The District Commander issues a ruling after reviewing an appeal submitted under this paragraph.

(c) Any person not satisfied with a ruling made under the procedure contained in paragraph (b) of this section, or any person not satisfied with a ruling made by an official in the Office of Marine Safety, Security, and Environmental Protection, may appeal that ruling in writing, or orally as allowed under paragraph (d) of this section, to the Chief, Office of Marine

Safety, Security, and Environmental Protection, United States Coast Guard, Washington, DC 20593. The appeal may contain supporting documentation and evidence that the appellant wishes to have considered. If requested to do so, the Chief, Office of Marine Safety, Security and Environmental Protection, may stay the effect of the action being appealed while the ruling is reviewed. The Chief, Office of Marine Safety, Security and Environmental Protection, issues a ruling after reviewing an appeal submitted under this paragraph. Any decision made by the Chief, Office of Marine Safety, Security and Environmental Protection, under the procedure of this paragraph is final agency action.

(d) Any appeal under this section must be made within 30 days after notification of the ruling being appealed. If the delay in presenting a written appeal would have a significant adverse impact on the appellant, the appeal under paragraph (b) or (c) of this section may first be presented orally. If the appeal is first presented orally, the appellant must submit the appeal in writing within five days of the oral presentation to the Coast Guard official to whom the oral presentation was made. The written appeal must contain the reason for the appeal and a summary of the oral presentation.

§ 153.5 [Removed]

24. By removing § 153.5.

25. By amending § 153.7 by revising the title and adding paragraph (d) to read as follows:

§ 153.7 Ships built before December 27, 1977 and non-self-propelled ships built before July 1, 1983: application.

(d) Except as required by this paragraph, Subpart B of this part does not apply to a non-self-propelled ship that carries an NLS cargo under this part if—

(1) The ship was built before July 1, 1983;

(2) The ship carries no NLS or NLS residue at any time it is in a foreign port;

(3) The NLS does not require a type I containment system;

(4) From the last voyage made before April 6, 1987, until April 6, 1987, the ship operates continuously under a Certificate of Inspection issued under Subchapter D or I of this chapter and—

(i) The Certificate of Inspection authorized the carriage of the NLS in the containment system that is to carry the NLS;

(ii) The NLS was listed in Table 30.25-1 of this chapter at the time the last Certificate of Inspection was issued, and

the Certificate authorized the containment system to carry the flammability grade of the NLS; or

(iii) The Coast Guard had determined the NLS was not regulated under Subchapter D or O of this chapter at the time the last Certificate of Inspection was issued;

(5) The ship meets the provisions in § 153.216 and §§ 153.470 through 153.491 applying to the NLS category of that cargo;

(6) When the "Special Requirements" column of Table 1 contains an entry for § 153.408 or § 153.409 beside the cargo name, the ship meets the section, except the system prescribed by the section need be capable of operation only during loading;

(7) The ship continues to meet the requirements under which it was last certified to carry the NLS; and

(8) No part of the ship's hull plating is a component of a cargo tank if the cargo tank is endorsed to carry a cargo having a type II containment system in Table 1.

26. By revising § 153.8 to read as follows:

§ 153.8 Procedures for requesting an endorsed Certificate of Inspection.

(a) When applying for the endorsed Certificate of Inspection that § 153.900 requires for a ship to carry a cargo listed in Table 1, the applicant must proceed as follows:

(1) Send a letter to one of the Coast Guard offices listed in § 91.55-15 of this chapter that includes—

(i) A request for the endorsed Certificate of Inspection;

(ii) The name of the ship; and

(iii) A list of the cargoes from Table 1 the applicant wishes the endorsement to allow.

(2) Supply to the Coast Guard when requested—

(i) Hull type calculations;

(ii) The plans and information listed in §§ 54.01-18, 56.01-10, 91.55-5 (a), (b), (d), (g), and (h), and 110.25-1 of this chapter;

(iii) A copy of the Procedures and Arrangements Manual required by § 153.490; and

(iv) Any other ship information, including plans, design calculations, test results, certificates, and manufacturer's data, that the Coast Guard needs to determine if the ship meets this part.

(b) The Coast Guard notifies the applicant in writing—

(1) Whether any further information is necessary to evaluate the request for the endorsed Certificate of Inspection; and

(2) Of the outcome of the request for the endorsed Certificate of Inspection.

(c) The Coast Guard returns the Procedures and Arrangements Manual

stamped "Approved" or indicating what corrections are necessary.

Note.—The procedures for requesting an IOPP Certificate are found in 33 CFR Part 151.

27. By revising § 153.10 to read as follows:

§ 153.10 Procedures for requesting alternatives and waivers; termination of waivers.

(a) The Coast Guard considers allowing the use of an alternative in place of a requirement in this part if—

(1) The person wishing to use the alternative sends a written application to the Commandant (G-MTH) explaining—

(i) The requirement in this part that would not be met and the reason why;

(ii) The alternative the person proposes to be substituted; and

(iii) How the alternative would ensure a level of safety and pollution protection at least equal to that of the requirement for which the alternative would substitute;

(2) The alternative does not substitute an operational standard for a design or equipment standard; and

(3) The Commandant (G-MTH) determines that the alternative provides a level of protection for purposes of safety and pollution at least equal to the requirement in this part.

(b) The Coast Guard considers granting a waiver of a requirement for which this part allows a waiver if the person wishing the waiver sends a written application to the Commandant (G-MTH) that includes—

(1) A citation of the regulation that allows the waiver; and

(2) Any information and pledges that the regulation requires to be submitted with the application for the waiver.

(c) The Commandant notifies the applicant in writing—

(1) Whether any further information is necessary to evaluate the request for an alternative or waiver; and

(2) Of the outcome of the request for an alternative or waiver.

(d) A waiver issued under this part terminates if any—

(1) Information required to be supplied with the application for the waiver changes;

(2) Pledges required to be supplied with the application for the waiver are repudiated;

(3) Restrictions or procedures applying to operations under the waiver are violated; or

(4) Requirements in the section of this part authorizing the waiver are violated.

28. By revising § 153.12 to read as follows:

§ 153.12 IMO Certificates for United States Ships.

The Officer in Charge, Marine Inspection issues a United States ship an IMO Certificate endorsed to allow the carriage of a hazardous material or NLS cargo in Table 1 if the following requirements are met:

(a) The ship's owner must make a request to the OCMI for the IMO Certificate.

(b) The ship must meet this part.

(c) Self-propelled ships contracted for after November 1, 1973 but built before December 28, 1977 must meet requirements in this part that apply to a self-propelled ship built on December 28, 1977.

(d) Non-self-propelled ships contracted for after November 1, 1973 but built before July 1, 1983 must meet the requirements in this part applying to non-self-propelled ships built on July 1, 1983.

§ 153.16 [Amended]

29. By moving §§ 153.15 and 153.16 from Subpart B to Subpart A and revising § 153.15 to read as follows:

§ 153.15 Conditions under which the Coast Guard issues a Certificate of Inspection or Certificate of Compliance.

(a) The Coast Guard issues the endorsed Certificate of Inspection required under § 153.900 for a United States ship to carry a hazardous material or NLS listed in Table 1 if—

(1) The person wishing the Certificate of Inspection applies following the procedures under § 153.8; and

(2) The ship meets the design and equipment requirements of this part and—

(i) Subchapter D of this chapter if the hazardous material or NLS is flammable or combustible; or

(ii) Either Subchapter D or I of this chapter, at the option of the ship owner, if the hazardous material or NLS is non-flammable or non-combustible.

(b) The Coast Guard issues the endorsed Certificate of Compliance required under § 153.900 for a foreign ship to carry a hazardous material or NLS listed in Table 1 if—

(1) The person wishing the Certificate of Compliance follows the procedures under § 153.9;

(2) The ship has an IMO Certificate issued by its Administration and endorsed with the name of the hazardous material or NLS if the ship's Administration is signatory to MARPOL 73/78;

(3) The ship meets the requirements of this part applying to United States ships and § 30.01-5(e) of this chapter if the ship's Administration is not signatory to MARPOL 73/78; and

(4) The ship meets any additional design and equipment requirements specified by the Commandant (G-MTH);

§ 153.19 [Redesignated as § 153.190]

30. By redesignating § 153.19 as § 153.190 under the group heading "General Vessel Requirements".

31. By amending Subpart A by adding §§ 153.30 and 153.40 to read as follows:

§ 153.30 Special area endorsement.

The Coast Guard endorses the Certificate of Inspection of a United States ship allowing it to operate in special areas if the ship owner—

(a) Requests the endorsement following the procedures in § 153.8;

(b) Shows that the ship meets the design and equipment requirements applying to ships operating in special areas contained in Regulations 5, 5A, and 8 of Annex II and the Standards for Procedures and Arrangements.

§ 153.40 Determination of materials that are hazardous.

Under the authority delegated by the Secretary of Transportation in 49 CFR 1.46(t) to carry out the functions under 49 U.S.C. 1803, the Coast Guard has found the following materials to be hazardous when transported in bulk:

(a) Materials listed in Table 30.25-1 of this chapter.

(b) Materials listed in Table 151.05.

(c) Materials listed in Table 1.¹

(d) Materials listed in Table 4 of Part 154.

(e) Materials that are NLSs under MARPOL Annex II.

(f) Liquids, liquefied gases, and compressed gases, that are—

(1) Listed in 49 CFR 172.101;

(2) Listed in 49 CFR 172.102; or

(3) Listed or within any of the definitions in Subparts C through O of 49 CFR Part 173.

(g) Those liquid, liquefied gas, and compressed gas materials designated as hazardous in the permissions granted under § 153.900(c).²

32. By revising the title of Subpart B to read as follows:

Subpart B—Design and Equipment

33. By removing the group heading "General" under Subpart B.

34. By amending § 153.214 by revising the introductory text to read as follows:

¹ Those hazardous material cargoes designated Category A, B, C, or D in Table 1 are also Noxious Liquid Substances under Annex II and the Act to Prevent Pollution from Ships, 33 U.S.C. 1901 *et seq.*

² The Coast Guard continues to propose in the Federal Register any addition of these designated hazardous materials to one of the tables referred to in paragraphs (a) through (d).

§ 153.214 Personnel emergency and safety equipment.

Each self-propelled ship must have the following:

35. By amending § 153.215 by adding introductory text to read as follows:

§ 153.215 Safety equipment lockers.

Each self-propelled ship must have the following:

36. By revising § 153.216 to read as follows:

§ 153.216 Shower and eyewash fountains.

(a) Each non-self-propelled ship must have a fixed or portable shower and eyewash fountain that operates during cargo transfer and meets paragraph (c) of this section.

(b) Each self-propelled ship must have a shower and eyewash fountain that operates at all times and meets paragraph (c) of this section.

(c) The shower and eyewash fountains required by paragraphs (a) and (b) of this section must—

(1) Operate in any ambient temperature;

(2) Dispense water at a temperature between 0° C and 40° C (approx. 32° F and 104° F);

(3) Be located on the weatherdeck; and

(4) Be marked "EMERGENCY SHOWER" as described in § 153.955 (c), (d), and (e), so that the marking is visible from work areas in the part of the deck where the cargo containment systems are located.

37. By revising the introductory text to § 153.231(b) to read as follows:

§ 153.231 Type II system.

(b) Except as allowed in §§ 153.7 and 153.235—

38. By adding the following introductory text to § 153.234:

§ 153.234 Fore and aft location.

Except as allowed in § 153.7, each ship must meet the following:

39. By amending § 153.440 by revising the title, adding a new paragraph (a)(3), and revising paragraph (c) to read as follows:

§ 153.440 Cargo temperature sensors.

(a) * * *

(3) A cargo tank endorsed to carry a Category A, B, or C NLS must have a thermometer whose temperature reading is no greater than the temperature of the cargo at a point that is above the tank bottom at least one-eighth but no more

than one-half the height of the tank if the cargo is—

(i) A Category A NLS or a Category B NLS having a viscosity of at least 25 mPa.s at 20° C;

(ii) A Category C NLS having a viscosity of at least 60 mPa.s at 20° C; or

(iii) A Category A, B, or C NLS that has a melting point greater than 0° C.

(c) A portable thermometer may be substituted for the equipment required in paragraphs (a) and (b) of this section if—

(1) Table 1 allows open gauging with the cargo; or

(2) Table 1 allows restricted gauging with the cargo, and the portable thermometer is designed to be used through the containment system's restricted gauging system.

40. By amending § 153.460 by adding introductory text to read as follows:

§ 153.460 Fire protection systems.

Each self-propelled ship and each manned non-self-propelled ship must meet the following:

41. By adding §§ 153.470 through 153.491 grouped under a centered heading to read as follows:

Design and Equipment for Pollution Control**Sec.**

153.470 System for discharge of NLS residue to the sea: Categories A, B, C, and D.

153.480 Stripping quantity for Category B and C NLS tanks on ships built after June 30, 1986: Categories B and C.

153.481 Stripping quantities and interim standards for Category B NLS tanks on ships built before July 1, 1986: Category B.

153.482 Stripping quantities and interim standards for Category C NLS tanks on ships built before July 1, 1986: Category C.

153.483 Restricted voyage waiver for Category B and C NLS tanks on ships built before July 1, 1986: Category B and C.

153.484 Prewash equipment.

153.486 Design and equipment for removing NLS residue by ventilation: Categories A, B, C, and D.

153.488 Design and equipment for tanks carrying high melting point NLSs: Category B.

153.490 Cargo Record Book and Approved Procedures and Arrangements Manual: Categories A, B, C, and D.

153.491 Waiver of certain equipment for dedicated cargo tanks.

Design and Equipment for Pollution Control

§ 153.470 System for discharge of NLS residue to the sea: Categories A, B, C, and D.

Unless waived under § 153.491, each ship that discharges Category A, B, or C

NLS residue, or Category D NLS residue not diluted to 1/10th of its original concentration, into the sea under §§ 153.1126 and 153.1128 must have an NLS residue discharge system meeting the following:

(a) *Minimum diameter of an NLS residue discharge outlet.* The outlet of each NLS residue discharge system must have a diameter at least as great as that given by the following formula:

$$D = \frac{(Q_d)(\cosine \phi)}{5L}$$

Where:

D = Minimum diameter of the discharge outlet in meters.

Q_d = Maximum rate in cubic meters per hour at which the ship operator wishes to discharge slops (note: Q_d affects the discharge rate allowed under § 153.1126(e)(2)).

L = Distance from the forward perpendicular to the discharge outlet in meters.

φ = The acute angle between a perpendicular to the shell plating at the discharge location and the direction of the average velocity of the discharged liquid.

(b) *Location of an NLS residue discharge outlet.* Each NLS residue discharge outlet must be located—

(1) At the turn of the bilge beneath the cargo area; and

(2) Where the discharge from the outlet is not drawn into the ship's seawater intakes.

(c) *Location of dual NLS residue discharge outlets.* If the value of 6.45 for K is used in § 153.1126(b)(2), the NLS residue discharge system must have two outlets located on opposite sides of the ship.

Note.—A ship built before July 1, 1986 does not need a residue discharge system to discharge to the sea under § 153.1128 until January 1, 1988.

§ 153.480 Stripping quantity for Category B and C NLS tanks on ships built after June 30, 1986: Categories B and C.

Unless waived under § 153.491, Category B and C NLS cargo tanks on each ship built after June 30, 1986 must have stripping quantities determined under § 153.1604 that are less than—

(a) 0.15 m³ if Category B; and

(b) 0.35 m³ if Category C.

§ 153.481 Stripping quantities and interim standards for Category B NLS tanks on ships built before July 1, 1986: Category B.

Unless waived under § 153.483 or § 153.491, each Category B NLS cargo tank on ships built before July 1, 1986 must meet the following:

(a) Unless the tank meets the interim standard provided by paragraph (b) of

this section, the tank must have a stripping quantity determined under § 153.1604 that is less than 0.35 m^3 .

(b) Before October 3, 1994, the tank may have a total NLS residue determined under § 153.1608 that is less than 1.0 m^3 or $\frac{1}{1000}$ th of the tank's capacity and an NLS residue discharge system meeting the following:

(1) The system must be capable of discharging at a rate equal to or less than Q in the following formula:

$$Q = K U^{1.4} L^{1.6} \times 10^{-5} \text{ m}^3/\text{hr}$$

where:

$K = 4.3$, except $K = 6.45$ if the discharge is equally distributed between two NLS residue discharge outlets on opposite sides of the ship (see §§ 153.470(c) and 153.1126(b)).

L = ship's length in meters.

U = for a ship that is self-propelled, the minimum speed in knots specified in the approved Procedures and Arrangements Manual for discharging Category B NLS residue, but at least 7;

U = for a ship that is not self-propelled, the minimum speed in knots specified in the approved Procedures and Arrangements Manual for discharging Category B NLS residue, but at least 4.

(2) The system must have equipment capable of automatically recording—

(i) The time of day that discharge of NLS residue through the residue discharge system starts and ends; and
(ii) The dates on which discharge begins and ends unless the equipment allows a person to enter these dates on the record manually.

(3) Each system that has the capacity to exceed Q calculated in paragraph (b)(1) of this section must have equipment that—

(i) Records the NLS residue flow through the system; and
(ii) Is sufficiently accurate that its recorded values averaged over any 30 second period differ no more than 15% from the actual flow averaged over the same 30 second period.

(4) Unless the system automatically controls the flow rate, the system must have—

(i) Manual controls that enable the flow to be adjusted to the value of Q calculated in paragraph (b)(1) of this section and that must be moved through at least 25% of their total range of movement for the discharge rate to change from $0.5Q$ to $1.5Q$; and
(ii) A flow rate meter located where the flow is manually controlled.

§ 153.482 Stripping quantities and interim standards for Category C NLS tanks on ships built before July 1, 1986: Category C.

Unless waived under § 153.483 or § 153.491, each Category C NLS cargo tank on ships built before July 1, 1986 must meet the following:

(a) Unless the tank meets the interim standard provided by paragraph (b) of this section, the tank must have a stripping quantity determined under § 153.1604 that is less than 0.95 m^3 .

(b) Before October 3, 1994, the tank may have a total NLS residue determined under § 153.1608 that is less than 3.0 m^3 or $1/1000$ th of the tank's capacity.

§ 153.483 Restricted voyage waiver for Category B and C NLS tanks on ships built before July 1, 1986: Category B and C.

At its discretion the Coast Guard waives §§ 153.481 and 153.482 under this section and allows a ship to carry Category B and C NLS cargoes between ports or terminals in one or more countries signatory to MARPOL 73/78 if the ship's owner requests a waiver following the procedures in § 153.10 and includes—

(a) A written pledge to—

(1) Limit the tank's carriage of Category B and C NLSs to those ports or terminals listed in accordance with paragraph (b) of this section; and

(2) Prewash the cargo tank as required under § 153.1118 after each Category B or C NLS is unloaded unless the prewash is allowed to be omitted under § 153.1114;

(b) Lists of all ports or terminals at which the ship is expected to load or unload Category B or C NLSs from the tank and all ports or terminals at which the ship is expected to prewash;

(c) An estimate of the quantity of NLS residue to be discharged to adequate reception facilities at each prewash port or terminal;

(d) Written statements from the owners of adequate reception facilities in each prewash port or terminal listed in accordance with paragraph (b) of this section who have agreed to take NLS residue from the ship, showing the amount of NLS residue each agrees to take;

(e) A written attestation from the person in charge of each prewash port or terminal that the Administration has determined the port or terminal to have adequate reception facilities for the NLS residue; and

(f) For ships requiring a Certificate of Inspection under § 153.900, a procedure that meets § 1.53.490(b)(2) that is included in the approved Procedures and Arrangements Manual.

Note:—Certificates of Inspection and any IMO Certificates issued to ships on restricted voyage waivers indicate that while the ship carries an NLS cargo or NLS residue, it is limited to voyages between the ports or terminals listed on the certificate.

§ 153.484 Prewash equipment.

Unless the ship operator shows that the prewash equipment specified in this section will be available at discharge or prewash facilities or the equipment is waived under § 153.491, to have its Certificate of Inspection or Certificate of Compliance endorsed to carry a Category A NLS or a Category B or C NLS requiring viscosity or melting point information under § 153.908 (a) and (b), a ship must have the following:

(a) For the tanks that carry the NLS, a tank washing system capable of washing all interior tank surfaces except those shielded from the washing system spray by ship's structure, and consisting of a wash water supply system and—

(1) A fixed tank washing machine in each tank; or

(2) A portable tank washing machine and, if required by the Coast Guard, equipment to move it during washing and when storing.

(b) Piping, valving, and crossovers needed to arrange the cargo piping so that the wash water passes through the cargo pump and cargo piping during tank washing or discharge of tank wash water.

(c) If the approved Procedures and Arrangements Manual specifies the hot water prewash required under 153.1108, a means of supplying water to the tank washing machine under paragraph (a) of this section at—

(1) A temperature of at least 60°C (140°F) when it leaves the washing machine; and

(2) The flow rate needed for the washing machine jets to meet paragraph (a) of this section.

§ 153.486 Design and equipment for removing NLS residue by ventilation: Categories A, B, C, and D.

(a) If NLS residue is to be removed from a cargo tank by ventilation, in addition to the equipment required under paragraph (b) of this section the ship must have—

(1) Openings in the tank deck near the sump or suction point;

(2) If the openings required by paragraph (a)(1) of this section are insufficient, an access opening for visually determining whether liquid remains in the sump area of the cargo tank after ventilation or some other means for making this determination; and

(3) An approved Procedures and Arrangements Manual with instructions that meet § 153.490(b)(3).

(b) Unless the ship operator shows that the ventilation equipment specified in this paragraph will be available from shore when needed, if NLS residue is to

be removed from a cargo tank by ventilation, in addition to the equipment required under paragraph (a) of this section the ship must have—

(1) Portable forced air ventilating equipment fitting the ventilation openings required in paragraph (a) of this section and able to ventilate the extremities of the tank to the extent prescribed in Appendix C of the IMO *Standards for Procedures and Arrangements for the Discharge of Noxious Liquid Substances*, Resolution MEPC 18(22), 1985; and

(2) A connector that allows a fan or air supply to be connected to the hose connections for the tank at the manifold.

Note:—The Clean Air Act (42 U.S.C. 7401 *et seq.*) allows states to regulate emissions from tank ventilation. There may be other regulations, both local and Federal, that affect the use of tank ventilation for safety or environmental purposes.

§ 153.488 Design and equipment for tanks carrying high melting point NLSs: Category B.

Unless waived under § 153.491, for a ship to have its Certificate of Inspection or Certificate of Compliance endorsed allowing a tank to carry a Category B NLS with a melting point of 15 °C or more, the cargo tank must have—

(a) An arrangement enabling the cargo to be heated before cargo transfer, using heat supplied by the ship or by another source; and

(b) Sides and bottom separate from the ship's side or bottom shell plating.

§ 153.490 Cargo Record Book and Approved Procedures and Arrangements Manual: Categories A, B, C, and D.

(a) Unless waived under § 153.491, to have a Certificate of Inspection or Certificate of Compliance endorsed to carry NLS cargo, a ship must have—

(1) If U.S., a Cargo Record Book published by the Coast Guard (OMB App. No. 2115-0089), or, if foreign, a Cargo Record Book having the same entries and format as Appendix 4 of Annex II; and

(2) A Procedures and Arrangements Manual meeting paragraph (b) of this section and approved by—

(i) The Coast Guard, if the ship is a United States ship or one whose Administration is not signatory to MARPOL 73/78; or

(ii) The Administration, if the ship is one whose Administration is signatory to MARPOL 73/78.

(b) Each Procedures and Arrangements Manual under paragraph (a)(2) of this section must include the following:

(1) The standard format and content prescribed in Chapter 2 and Appendix D of the IMO *Standards for Procedures*

and Arrangements for the Discharge of Noxious Liquid Substances, Resolution MEPC 18(22), 1985.

(2) If the ship has a tank that carries a cargo under a waiver issued under § 153.483, procedures ensuring that—

(i) Category B and C NLSs are discharged from the tank only in the ports or terminals listed in accordance with § 153.483(b); and

(ii) The tank is prewashed after discharging each Category B or C NLS unless § 153.1114 allows the prewash to be omitted.

(3) If ventilation is used to clean a tank under § 153.1102(b)(2), ventilation procedures that meet those in Appendix C of the IMO *Standards for Procedures and Arrangements for the Discharge of Noxious Liquid Substances*, Resolution MEPC 18(22), 1985.

(4) If tank cleaning agents are used, quantities to use and instructions for using the cleaning agents.

(5) If the tank has the discharge recording equipment required in § 153.481(b), procedures to ensure that no NLS residue is discharged from the tank when the recording equipment is incapacitated unless the concentration and total quantity limits for the NLS in Annex II are not exceeded.

§ 153.491 Waiver of certain equipment for dedicated cargo tanks.

(a) The Coast Guard waives §§ 153.480, 153.481, 153.482, and 153.488 and endorses a ship's Certificate of Inspection or Certificate of Compliance allowing a cargo tank to carry a single, specific NLS cargo and no other cargo if the ship's owner—

(1) Requests a waiver following the procedures in § 153.10; and

(2) Pledges in writing that while any waiver is in effect the cargo tank will—

(i) Carry only the NLS cargo listed on the Certificate of Inspection or Certificate of Compliance;

(ii) Carry no cargo other than the NLS; and

(iii) Not be washed or ballasted unless the wash water or ballast water is discharged to a reception facility.

(b) The Coast Guard waives §§ 153.470 and 153.490(a)(2) if—

(1) The ship's owner requests a waiver following the procedures in § 153.10;

(2) The Coast Guard has issued a waiver to each of the ship's NLS cargo tanks under paragraph (a) of this section; and

(3) The ship's owner adds to the ship's operational manual any provisions for preventing NLS discharge specified by the Commandant (G-MTH) as a condition for issuing the waiver.

42. By revising § 153.900 to read as follows:

§ 153.900 Certificates and authorization to carry a bulk liquid hazardous material.

(a) Except as allowed in 33 CFR 151.33(a), no ship may carry a cargo of bulk liquid hazardous material listed in Table 1 or the residue of a bulk liquid hazardous material that is an NLS listed in Table 1 unless the ship meets the following:

(1) The cargo must be carried in a cargo tank.

(2) If a United States ship, the ship must have a Subchapter D or I Certificate of Inspection that is endorsed to allow the cargo tank to carry the cargo.

(3) If a foreign ship, the ship must have a Certificate of Compliance that is endorsed to allow the cargo tank to carry the cargo.

(4) The ship must have an IMO Certificate of Fitness issued under 153.12 that is endorsed to allow the cargo tank to carry the cargo if it is—

(i) A United States self-propelled ship in foreign waters; or

(ii) A United States non-self-propelled ship in the waters of another Administration signatory to MARPOL 73/78 and the cargo is a Category A, B, or C NLS.

(c) No ship may carry any bulk liquid cargo not listed in Table 1, Table 2, Table 4 of Part 154 of this chapter, § 30.25-1 of this chapter, or 33 CFR 151.47 without written permission from the Commandant (G-MTH) under paragraph (d) of this section naming the bulk liquid hazardous material or NLS.

(d) The Coast Guard at its discretion grants the written permission required in paragraph (c) if—

(1) The shipowner—

(i) Sends a request to the Commandant (G-MTH); and

(ii) Supplies any information the Coast Guard needs to develop carriage requirements for the bulk liquid cargo; and

(2) The ship—

(i) Has a Certificate of Inspection, Certificate of Compliance, or IOPP Certificate as specified by the Commandant (G-MTH);

(ii) Meets those design and equipment requirements of this part specified by the Commandant (G-MTH); and

(iii) Meets any additional requirements made by the Commandant (G-MTH).

43. By revising § 153.901 to read as follows:

§ 153.901 Documents: posting, availability, and alteration.

(a) No person may operate a United States ship unless the endorsed

Certificate of Inspection is readily available on the ship.

(b) No person may operate a foreign ship unless the endorsed Certificate of Compliance or Certificate of Inspection is readily available on the ship.

(c) No person may operate a ship under an alternative or waiver granted under this part unless the document granting the alternative or waiver is attached to the ship's Certificate of Inspection or Certificate of Compliance.

(d) Except as allowed in paragraph (e) of this section, the Coast Guard does not accept the following if altered:

- (1) Certificates of Inspection.
- (2) Certificates of Compliance.
- (3) Certificates of Fitness, unless the alteration is by the issuing authority.
- (4) Approved Procedures and Arrangements Manuals, unless the alteration is approved by the issuing authority.

(5) NLS Certificates.

(e) A person wishing to change a Procedures and Arrangements Manual approved by the Coast Guard must submit a copy to the Coast Guard following the procedures for requesting an endorsed Certificate of Inspection in § 153.8.

44. By revising § 153.902 to read as follows:

§ 153.902 Expiration and invalidation of the Certificate of Compliance.

(a) The Certificate of Compliance shows its expiration date.

(b) The endorsement of a Certificate of Compliance under this part is invalid if the ship's IMO Certificate expires or becomes invalid.

(c) The Coast Guard reinstates, at its discretion, the endorsement on a Certificate of Compliance invalidated under paragraph (b) of this section if the ship's owner submits a copy of the IMO Certificate to the Commandant (G-MTH) after the IMO Certificate is revalidated or reissued.

Note: See § 153.809 for procedures for having a Certificate of Compliance reissued.

45. By revising § 153.903 to read as follows:

§ 153.903 Operating a United States ship in special areas: Categories A, B, and C.

No person may operate a United States ship that carries an NLS or NLS residue in a special area unless—

(a) The ship's Certificate of Inspection is endorsed in accordance with § 153.30; and

(b) The ship meets the operating requirements applying to special areas in Regulations 5, 5A, 8 and the Standards for Procedures and

Arrangements of Annex II.

46. By adding § 153.908 to read as follows:

§ 153.908 Cargo viscosity and melting point information; measuring cargo temperature during discharge: Categories A, B, and C.

(a) The person in charge of the ship may not accept a shipment of a Category A, B, or C NLS cargo having a reference to this paragraph in the "Special Requirements" column of Table 1 unless the person has, from the cargo's manufacturer or the person listed as the shipper on the bill of lading, a written statement of the following:

(1) For Category A or B NLS, the cargo's viscosity at 20 °C in mPa.s and, if the cargo's viscosity exceeds 25 mPa.s at 20 °C, the temperature at which the viscosity is 25 mPa.s.

(2) For Category C NLS, the cargo's viscosity at 20 °C in mPa.s and, if the cargo's viscosity exceeds 60 mPa.s at 20 °C, the temperature at which the viscosity is 60 mPa.s. If the cargo's viscosity varies from shipment to shipment, the maximum viscosity and maximum temperature values may be supplied.

(b) The person in charge of the ship may not accept a shipment of a Category A, B, or C cargo having a reference to this paragraph in the "Special Requirements" column of Table 1 unless the person has a written statement of the cargo's melting point in °C from the cargo's manufacturer or the person listed as the shipper on the bill of lading. If the cargo's melting point varies from shipment to shipment, the highest melting point may be supplied.

(c) The person in charge of the ship shall ensure that the cargo temperature is read and recorded in the Cargo Record Book following the procedures in paragraph (d) of this section when a cargo having a reference to paragraph (a) or (b) of this section in the "Special Requirements" column of Table 1 is unloaded.

(d) The cargo temperature measured in paragraph (c) of this section must be made using the following procedure:

(1) Each reading must be made with the sensor or thermometer required by § 153.440(a)(3) or (c). If a portable thermometer is used, it must be located as prescribed for the temperature sensor in § 153.440(a)(3).

(2) A total of 2 readings must be made, the first reading to be made no more than 30 minutes after cargo transfer begins and the second reading no more than 30 minutes before the main cargo pump is shut down.

(3) The cargo's temperature is the

average of the 2 readings made under paragraph (d)(2) of this section.

47. By adding § 153.909 to read as follows:

§ 153.909 Completing the Cargo Record Book and record retention: Categories A, B, C, and D.

(a) The person in charge of a ship shall ensure that the Cargo Record Book required under § 153.490 is completed immediately after any of the following occurs:

- (1) An NLS cargo is loaded.
- (2) An NLS cargo is transferred between tanks on a ship.
- (3) An NLS cargo is unloaded from a tank.
- (4) A tank that last carried an NLS cargo is prewashed under this part.
- (5) A tank that last carried an NLS cargo is washed, except as reported under paragraph (a)(4) of this section, cleaned, or ventilated.
- (6) Washings from a tank that last carried an NLS cargo are discharged to the sea.
- (7) Tanks that last carried an NLS cargo are ballasted.
- (8) Ballast water is discharged to the sea from a cargo tank that last carried an NLS.

(9) An NLS cargo or NLS residue is discharged to the sea by accident or except as allowed by this part.

(10) A Surveyor is present during an operation that this part requires the presence of a Surveyor.

(11) NLS residue or NLS cargo is transferred from cargo pumproom bilges or transferred to an incinerator.

(12) A waiver is issued to the ship, ship owner, ship operator, or person in charge of the ship under this part.

(13) The concentration of a Category A NLS residue is measured under § 153.1120(a).

(14) Any discharge recording equipment required by § 153.481(b)(2) fails.

(b) The person in charge of the ship shall ensure that the Cargo Record Book is on board and readily available for inspection and copying by the Coast Guard and when the ship is a U.S. ship in the waters of a foreign country whose Administration is signatory to MARPOL 73/78, the authorities of that country.

(c) Each officer in charge of an operation listed under paragraph (a) of this section, and each Surveyor observing an operation that this part requires the presence of a Surveyor, shall attest to the accuracy and completeness of each Cargo Record Book entry concerning those operations by signing after each entry.

(d) After all the entries on a page of the Cargo Record Book are completed, and if the person in charge of the ship agrees with the entries, the person in charge of the ship shall sign the bottom of that page.

(e) The ship owner or operator shall ensure that—

(1) Each Cargo Record Book is retained on board the ship for at least 3 years after the last entry; and

(2) Each discharge recording required by § 153.1126(b)(1) is retained on board the ship for at least three years.

48. By adding §§ 153.1100 through 153.1132 grouped under a centered heading to read as follows:

Approval of Surveyors and Handling of Categories A, B, C, and D Cargo and NLS Residue

Sec.

- 153.1100 Responsibility of the person in charge.
- 153.1101 Procedures for getting a Surveyor; approval of Surveyors.
- 153.1102 Handling and disposal of NLS residue: Categories A, B, C, and D.
- 153.1104 Draining of cargo hose: Categories A, B, C, and D.
- 153.1106 Cleaning agents.
- 153.1108 Heated prewash for solidifying NLS and high viscosity NLS: Categories A, B, and C.
- 153.1112 Prewash for tanks containing Category A NLS residue.
- 153.1114 Conditions under which a prewash may be omitted: Categories A, B, and C.
- 153.1116 Prewash for tanks unloaded without following the approved Procedures and Arrangements Manual: Category B and C.
- 153.1118 Prewash of Category B and C cargo tanks not meeting stripping standards: Category B and C.
- 153.1119 When to prewash and discharge NLS residues from a prewash; unloading an NLS cargo in a country whose Administration is not signatory to MARPOL 73/78: Categories A, B, and C.
- 153.1120 Procedures for tank prewash: Categories A, B, and C.
- 153.1122 Discharges of NLS residue from tank washing other than a prewash: Categories A, B, and C.
- 153.1124 Discharges of Category D NLS residue.
- 153.1126 Discharge of NLS residue from a slop tank to the sea: Categories A, B, C, and D.
- 153.1128 Discharge of NLS residue from a cargo tank to the sea: Categories A, B, C, and D.
- 153.1130 Failure of slops discharge recording equipment; operating with, reporting failures, and replacing pollution equipment: Category A, B, C, D.
- 153.1132 Reporting spills and non-complying discharges: Category A, B, C, and D.

Approval of Surveyors and Handling of Categories A, B, C, and D Cargo and NLS Residue

§ 153.1100 Responsibility of the person in charge.

The person in charge of the ship shall ensure that—

(a) The requirements of §§ 153.1102 through 153.1132 are met; and

(b) The procedures in the approved Procedures and Arrangements Manual are followed.

§ 153.1101 Procedures for getting a Surveyor; approval of Surveyors.

(a) At least 24 hours before a Surveyor is needed, the person wishing the services of a Surveyor must contact the Captain of the Port or the Marine Safety Office that has jurisdiction over the port at which the Surveyor will be needed to—

(1) Arrange for the Coast Guard to provide a Surveyor; or

(2) Inform the Coast Guard of the selection of a Surveyor from one of the organizations accepted by the Coast Guard to provide Surveyors.

(b) Organizations may be accepted by the Coast Guard to provide Surveyors if they—

(1) Are engaged, as a regular part of their business, in performing inspections or tests of bulk liquid cargo tanks or bulk liquid cargo handling equipment;

(2) Are familiar with the references in § 153.0(b) and with the requirements of this part;

(3) Are not controlled by the owners or operators of ships needing the services of the Surveyors or the facilities at which those ships would unload cargo;

(4) Are not dependent on Coast Guard acceptance under this section to remain in business; and

(5) Sign a Memorandum of Understanding with the Coast Guard.

(c) Each application for acceptance as a Surveyor must be submitted to the Commandant (G-MTH) and must contain the following:

(1) The name and address of the organization, including subsidiaries and divisions, requesting acceptance by the Coast Guard to provide Surveyors.

(2) A statement that the organization is not controlled by the owners or operators of ships needing the services of Surveyors or the facilities at which these ships would unload, or a full disclosure of any ownership or controlling interest held by such parties.

(3) A description of the experience and qualifications of the personnel who would be performing the function of Surveyor.

(4) A statement that the persons who will be performing the function of Surveyor have been trained in and are familiar with the requirements of Annex II and the regulations in this part.

(5) A statement that the Coast Guard may verify the information submitted in the application and may examine the persons who will be performing the function of Surveyor to determine their qualifications.

(d) The acceptance of an organization may be terminated by the Commandant if the organization fails to properly perform or supervise the inspections required in this part.

§ 153.1102 Handling and disposal of NLS residue: Categories A, B, C, and D.

(a) Except those Category A NLS residues that must be discharged under paragraph (c) of this section, NLS residue from an NLS whose vapor pressure is 5 kPa (50 mbar) or less at 20 °C (68 °F) must be—

- (1) Unloaded to any consignee;
- (2) Returned to the shipper;
- (3) Discharged to a reception facility;
- (4) Retained on the ship;
- (5) Discharged to the sea under § 153.1126 or 153.1128.

(b) Except those Category A NLS residues that must be discharged under paragraph (c) of this section, NLS residue from an NLS whose vapor pressure is greater than 5 kPa (50 mbar) at 20 °C must be—

(1) Handled in the same way as the NLS residue under paragraph (a) of this section; or

(2) Ventilated following a ventilation procedure in the approved Procedures and Arrangements Manual.

Note.—The Clean Air Act (42 U.S.C. 7401 *et seq.*) allows states to regulate emissions from tank ventilation. There may be other regulations, both local and Federal, that affect the use of tank ventilation for safety or environmental purposes.

(c) NLS residue containing Category A NLS in pumproom bilges and in spill trays at the manifold must be discharged to a reception facility.

§ 153.1104 Draining of cargo hose: Categories A, B, C, and D.

Before a cargo hose containing a Category A, B, C, or D NLS is disconnected after unloading the NLS cargo, the hose must be drained to the receiver of the cargo.

§ 153.1106 Cleaning agents.

No tank cleaning agent other than water or steam may be used to clean an NLS residue from a cargo tank except as prescribed in the approved Procedures and Arrangements Manual.

§ 153.1108 Heated prewash for solidifying NLS and high viscosity NLS: Categories A, B, and C.

(a) When a cargo tank must be prewashed under § 153.1112, 153.1116, or 153.1118 and the unloaded cargo is a high viscosity NLS or solidifying NLS, the wash water used in the prewash must leave the tank washing machine at a temperature of at least 60 °C (140 °F) unless § 153.1114 allows the prewash to be omitted or paragraph (c) of this section allows heating of the prewash water to be omitted.

(b) When a high viscosity NLS or solidifying NLS is unloaded from a cargo tank that is not required to be prewashed under § 153.1112, 153.1116, or 153.1118, the tank must be prewashed following the procedures in § 153.1120 using wash water that leaves the tank washing machine at a temperature of at least 60 °C (140 °F) unless § 153.1114 or paragraph (c) of this section allows the prewash to be omitted.

(c) The heating of the prewash water required under paragraph (a) of this section and the prewash required under paragraph (b) of this section may be omitted if the approved Procedures and Arrangements Manual contains a procedure for measuring the temperature of all interior cargo tank surfaces throughout unloading and under the measuring procedure the temperature of these surfaces is—

(1) Greater than the temperature of the cargo's melting point and the cargo is a Category B or C solidifying NLS; or

(2) Greater than the temperature at which the cargo's viscosity exceeds—

(i) 25 mPa.s, if the cargo is a high viscosity NLS that is a Category A or Category B; or

(ii) 60 mPa.s, if the cargo is a high viscosity Category C NLS.

§ 153.1112 Prewash for tanks containing Category A NLS residue.

Unless § 153.1114 allows the prewash to be omitted, a cargo tank that unloads a Category A NLS cargo must be prewashed following the procedures in § 153.1120.

§ 153.1114 Conditions under which a prewash may be omitted: Categories A, B, and C.

A prewash required by this part may be omitted if one of the following requirements is met:

(a) A Surveyor has signed a statement in the Cargo Record Book that the next cargo has been determined to be one that may be loaded without washing the tank, and the tank is not washed or ballasted before it is loaded with the next cargo.

(b) A Surveyor has signed a statement in the Cargo Record Book that the

approved Procedures and Arrangements Manual contains procedures for removing the NLS residue by ventilation, and the cargo tank is not washed or ballasted before being cleaned following the ventilation procedure.

Note.—The Clean Air Act (42 U.S.C. 7401 *et seq.*) allows states to regulate emissions from tank ventilation. There may be other regulations, both local and Federal, that affect the use of tank ventilation for safety or environmental purposes.

(c) The tank requiring the prewash has a waiver issued under § 153.483 or 153.491 and the waiver states when the tank is to be prewashed.

§ 153.1116 Prewash for tanks unloaded without following the approved Procedures and Arrangements Manual: Categories B and C.

If for any reason more Category B or C NLS residue remains in a cargo tank and transfer piping of a ship after unloading than would remain after a normal discharge of the cargo when the unloading procedures in the approved Procedures and Arrangements Manual are followed, the tank must be prewashed following the procedures in § 153.1120 unless—

(a) Section 153.1114 allows the prewash to be omitted; or

(b) The residue is reduced using another procedure, and a Surveyor estimates and states in the Cargo Record Book that the cargo tank and transfer piping contain no more NLS residue than they would if discharged following the procedures in the approved Procedures and Arrangements Manual, and no other prewash is required by this part.

§ 153.1118 Prewash of Categories B and C cargo tanks not meeting stripping standards: Categories B and C.

(a) Unless § 153.1114 allows the prewash to be omitted, a cargo tank from which a Category B NLS is unloaded must be prewashed using the procedures in § 153.1120(b) if the tank—

(1) Operates under the interim standard in § 153.481(b); or

(2) Has a waiver issued under § 153.483.

(b) Unless § 153.1114 allows the prewash to be omitted, a cargo tank from which a Category C NLS is unloaded must be prewashed using the procedures in § 153.1120(b) if the tank has a waiver issued under § 153.483.

§ 153.1119 When to prewash and discharge NLS residues from a prewash; unloading an NLS cargo in a country whose Administration is not signatory to MARPOL 73/78: Categories A, B, and C.

(a) Except as allowed in paragraphs (b), (c), and (e) of this section, each prewash required by this subpart must be completed and all tank washings must be discharged to a reception facility before the ship leaves the unloading port.

(b) NLS residue from the prewash following the unloading of a Category B NLS may be transferred to a slop tank for discharge under § 153.1126 instead of being discharged under paragraph (a) of this section if the prewash is required solely under § 153.1118(a)(1).

(c) A tank that is required by this part to be prewashed may be prewashed in a port other than the unloading port if the following conditions are met:

(1) The person in charge requests permission from the Commandant (G-MTH) (tel # 202-267-1217) if the prewash port is a foreign port, or the Captain of the Port having jurisdiction over the unloading port if the prewash port is a U.S. port.

(2) The person in charge supplies with the request required under paragraph (c)(1) of this section—

(i) The name of the ship;

(ii) The name of the owner;

(iii) The name of the NLS;

(iv) The approximate date the tank will be prewashed if the relocation of the prewash port is for one time only;

(v) A written agreement to receive the tank washings by a reception facility in the prewash port;

(vi) When the prewash port or terminal is in a country whose Administration is signatory to MARPOL 73/78, a written attestation from the person in charge of each prewash port or terminal that the Administration has determined the port or terminal to have adequate reception facilities for the NLS residue;

(vii) Written pledges from the person in charge that—

(A) The tank to be prewashed will not be washed or ballasted before being prewashed; and

(B) The ship will be taken to the reception facility and the tank prewashed in accordance with the requirements in § 153.1120; and

(viii) Any additional information the Captain of the Port or Commandant (G-MTH) requests to evaluate granting the permission.

(3) The Coast Guard or Commandant (G-MTH) has granted the permission in writing, the permission is carried aboard the ship, and the person in charge of the

ship has made an entry in the Cargo Record Book stating that the permission has been granted.

(d) Unless the permission granted under paragraph (c)(4) of this section includes alternate conditions of termination or revocation in writing, the permission is—

(1) Terminated after the tank is prewashed as pledged in paragraph (c)(3)(vii) of this section or loaded with another cargo;

(2) Revoked if either of the pledges in paragraph (c)(3)(vii) of this section is invalidated or the agreement in paragraph (c)(3)(v) of this section is repudiated; and

(3) Revoked at any time the ship is not operated in accordance with the pledges in paragraph (c)(3)(vii) of this section and the conditions listed with the granted permission.

(e) A U.S. ship that would otherwise be required by this part to prewash in a port without reception facilities must obtain permission from Commandant (G-MTH) to prewash in an alternate port.

§ 153.1120 Procedures for tank prewash: Categories A, B, and C.

Except where the approved Procedures and Arrangements Manual prescribes a different procedure, a prewash required by this part must meet the following:

(a) When this part requires a prewash of a tank containing Category A NLS residue and the alternative prewash procedure in paragraph (b) of this section is not used, the prewash must meet the following:

(1) The prewash may not begin until—

(i) A Surveyor is present; and

(ii) Instrumentation or equipment is available that is capable of measuring the concentration of the Category A NLS in the NLS residue and determining whether it is below 0.1 per cent by weight.

(2) The equipment specified in § 153.484 must be used as prescribed in the approved Procedures and Arrangements Manual for the prewash.

(3) The wash water must be heated if required by § 153.1108, and water or tank washings must pass through the cargo pump and piping, including any stripping equipment, during washing or during discharge of tank washings.

(4) The tank washing machine must be placed in all positions specified for the tank's Category A NLS prewash procedure in the approved Procedures and Arrangements Manual.

(5) The tank must be pumped out each time there are enough tank washings collected in the bottom of the tank for the pump to gain suction, and if the NLS

is immiscible with water or is a solidifying cargo, all floating and suspended NLS must be discharged.

(6) The washing machine must be operated until samples of the discharged tank washings taken by the Surveyor are tested using the equipment required by paragraph (a)(1)(ii) of this section and the concentration of NLS is below 0.1 per cent by weight.

(7) After the washing is stopped, the remaining tank washings must be pumped out.

(8) The Cargo Record Book must have items 12 through 14 completed and must show the Surveyor's written certification of their accuracy.

(9) The Cargo Record Book must have the Surveyor's written concurrence that the prewash procedures specified in the approved Procedures and Arrangements Manual were followed.

(b) When this part requires a prewash of a tank containing Category B or C NLS residue or when the procedure in this paragraph is used as an alternative to the prewash procedure under paragraph (a) of this section, the prewash must meet the following:

(1) If the prewash is for a Category A NLS, the prewash may not begin until a Surveyor is present.

(2) The equipment specified in § 153.484 must be used as prescribed in the approved Procedures and Arrangements Manual for the prewash.

(3) The wash water must be heated if required by § 153.1108, and water or tank washings must pass through the cargo pump and piping, including any stripping equipment, during washing or during discharge of tank washings.

(4) Except as required in paragraph (b)(5) of this section, the number of washing machine cycles specified in Table 153.1120 must be completed. If a prewash is required by a section listed under Column 1 of Table 153.1120 and another section listed under Column 2, the number of cycles in Column 1 must be completed but no additional cycles are necessary.

(5) If the approved Procedures and Arrangements Manual specifies that a tank washing machine must be moved for the prewash of a tank from which a Category A NLS or a solidifying NLS has been unloaded, the number of washing machine cycles specified in Table 153.1120 must be completed at each position to which the washing machine is moved.

(6) When the NLS is immiscible with water or is a solidifying cargo, the tank must be pumped out each time enough tank washings collect in the bottom of the tank for the pump to gain suction, or the procedures in paragraphs (b)(3), (b)(4), and (b)(5) of this section must be

repeated two additional times with the tank pumped out each time, for a total of three washings.

(7) Items 12 through 14 in the Cargo Record Book must be completed and, if the prewash is for a Category A NLS, verification that the procedures specified in the approved Procedures and Arrangements Manual were followed shown by the Surveyor's endorsement in the Cargo Record Book.

TABLE 153.1120—NUMBER OF WASHING MACHINE CYCLES IN THE PREWASH PROCEDURE

	Number of washing machine cycles	
	Column 1: Prewash under § 153.1116 or for a solidifying NLS under § 153.1108	Column 2: Prewashes except those listed under column 1
Category A NLS.....	2	1
Category B or C NLS.....	1	1/2

§ 153.1122 Discharges of NLS residue from tank washing other than a prewash: Categories A, B, and C.

Tank washings that do not result from a prewash and that contain Category A, B, or C NLS residues must be discharged to a reception facility or discharged to the sea under § 153.1126 or 153.1128 except those tank washings resulting from washing a tank that has been cleaned following a ventilation procedure in the approved Procedures and Arrangements Manual.

§ 153.1124 Discharges of Category D NLS residue.

NLS residue from Category D NLSs must be discharged to a reception facility or discharged to the sea using the following procedure:

(a) Before discharge begins, drain or flush the NLS residue in the tank's piping systems into the tank.

(b) After draining or flushing, discharge the NLS residue to the sea in accordance with § 153.1128 or transfer it to a slop tank and discharge in accordance with § 153.1126.

§ 153.1126 Discharge of NLS residue from a slop tank to the sea: Categories A, B, C, and D.

NLS residue in a slop tank may not be discharged into the sea unless—

(a) The ship meets the conditions for discharging the NLS residue from a cargo tank in § 153.1128; and

(b) For Category B NLS residue transferred to the slop tank under § 153.1119(b), the NLS is discharged—

(1) Through an NLS residue discharge system with the flow recording

equipment required in § 153.481(b)(2) operating; and

(2) At a rate maintained at or below Q in the following:

For tank contents that are miscible

$$Q = \frac{VKU^{1.4}L^{1.6}}{N} \times 10^{-6} \text{ m}^3/\text{hr}$$

For tank contents that are immiscible

$$Q = KU^{1.4}L^{1.6} \times 10^{-6} \text{ m}^3/\text{hr}$$

where:

Q = maximum permissible slops discharge rate in cubic meters per hour.

V = volume of slops in the tank in cubic meters.

K = 4.3, except K = 6.45 if Q is distributed between two NLS residue discharge outlets on opposite sides of the ship (see §§ 153.470(c) and 153.481(b)).

U = ship's speed in knots.

L = ship's length in meters.

N = number of tanks containing Category B NLS residue pumped into the slop tank.

§ 153.1128 Discharge of NLS residue from a cargo tank to the sea: Categories A, B, C, and D.

The discharge of NLS residue to the sea must be made with the ship at least 22.24 km (12 nautical miles) from the nearest land, and must meet the following additional conditions:

(a) To discharge the following the ship must be in water at least 25 m (76.2 ft) deep:

(1) Category B or C NLS residue diluted to less than 1 ppm of the NLS.

(2) Category B or C NLS residue resulting from washing a tank after the following washing procedure has been completed:

(i) If the tank is not required to be prewashed under this part, the tank must be washed following the procedures that apply to a prewash of a Category B NLS in § 153.1120 using one washing machine cycle, and the tank washings discharged to a reception facility or to the sea under § 153.1126 or paragraphs (a)(1), (c) or (d) of this section.

(ii) After the tank has been prewashed or has been washed under paragraph (a)(2)(i) of this section, the tank must then be washed with one cycle of the tank washing machine, and the tank washings discharged to a reception facility or to the sea in accordance with § 153.1126 or paragraphs (a)(1), (c), or (d) of this section.

(b) To discharge a Category D NLS residue to which 10 times its volume in water is added and mixed, the ship must be—

(1) If self-propelled, maintained at a speed of at least 12.97 km/hr (7 knots); and

(2) If not self-propelled, maintained at a speed of at least 7.41 km/hr (4 knots).

(c) Each ship built before July 1, 1986 that discharges Category A, B or C NLS residues before January 1, 1988 must be—

(1) In water at least 25 m (76.2 ft) deep;

(2) If discharging the residue of a Category A NLS cargo, discharging only residue created by washing the Category A NLS's cargo tank after a prewash;

(3) If discharging the residue of a Category B NLS cargo, discharging no more than the larger of 1 m³ or 1/3000th the volume of the Category B cargo loaded;

(4) If discharging the residue of a Category C NLS cargo, discharging no more than the larger of 3 m³ or of 1/1000th the volume of the Category C cargo loaded;

(6) If self-propelled, maintained at a speed of at least 12.97 km/hr (7 knots); and

(7) If not self-propelled, maintained at a speed of at least 7.41 km/hr (4 knots).

(d) To discharge Category A, B, C, or D NLS residue other than as allowed under paragraphs (a) through (c) of this section, the ship must be—

(1) In water at least 25 m (76.2 ft) deep;

(2) Discharging at a rate not exceeding that used for Q_d in § 153.470;

(3) If self-propelled, maintained at speed no less than the minimum specified in the approved Procedures and Arrangements Manual but at least 12.97 km/hr (7 knots);

(4) If not self-propelled, maintained at a speed no less than the minimum specified in the approved Procedures and Arrangements Manual but at least 7.41 km/hr (4 knots);

(5) If discharging the residue of a Category A NLS cargo, discharging only residue created by washing the Category A NLS's cargo tank after a prewash;

(6) If discharging the residue of a Category B NLS cargo, discharging no more than the larger of 1 m³ or 1/3000th the volume of the Category B cargo loaded;

(7) If discharging the residue of a Category C NLS cargo, discharging no more than the larger of 3 m³ or of 1/1000th the volume of the Category C cargo loaded;

(8) Discharging through an NLS residue discharge system meeting § 153.470.

§ 153.1130 Failure of slops discharge recording equipment; operating with, reporting failures, and replacing pollution equipment: Category A, B, C, D.

(a) If equipment required in §§ 153.470 through 153.488 fails, the Coast Guard Marine Inspection Office, Marine Safety Office, or Captain of the Port must be notified within 24 hours after the failure.

(b) No person shall replace a piece of equipment required by §§ 153.470 through 153.488 unless the replacement is—

(1) Identical to the original equipment; or

(2) Allowed as an alternative under § 153.10.

(c) The following conditions apply when discharge recording equipment required under § 153.481(b)(2) fails:

(1) No NLS residue may be discharged unless the approved Procedures and Arrangements Manual contains procedures for discharging with incapacitated discharge recording equipment while meeting the discharge restrictions of § 153.1126(b) and these procedures are followed.

(2) The failure of the discharge recording equipment must be recorded in the Cargo Record Book within 24 hours after the failure.

(3) If the ship operates under a Certificate of Inspection, the failed discharge recording equipment must be repaired or replaced within 60 days after it fails, and the repair or replacement recorded in the Cargo Record Book and reported to the Coast Guard within 24 hours after it is completed.

§ 153.1132 Reporting spills and non-complying discharges: Category A, B, C, and D.

The following shall be reported following the procedures applying to oil in 33 CFR 151.15 (c), (d), (g), (h):

(a) All discharges of the NLS that do not meet the requirements of this part.

(b) All spills into the water.

49. By adding new Subpart D, consisting of §§ 153.1600 through 153.1608 to read as follows:

Subpart D—Test and Calculation Procedures for Determining Stripping Quantity, Clingage NLS Residue, and Total NLS Residue

Sec.

153.1600 Equipment required for conducting the stripping quantity test.

153.1602 Test procedure for determining the stripping quantity.

153.1604 Determining the stripping quantity from the test results.

153.1608 Calculation of total NLS residue and clingage NLS residue.

Subpart D—Test and Calculation Procedures for Determining Stripping Quantity, Clingage NLS Residue, and Total NLS Residue

§ 153.1600 Equipment required for conducting the stripping quantity test.

The operator shall ensure the stripping quantity test is conducted with—

(a) Equipment that maintains a backpressure of at least 100 kPa (1 atm) (gauge) at the connection of the discharge line of the tank to be tested to the cargo transfer hose, including, but not limited to, piping whose discharge is 10 m above the manifold or a constant pressure valve in the discharge line and set at 100 kPa;

(b) A container for measuring the volume of water remaining in the tank to an accuracy of $\pm 5\%$;

(c) A squeegee or broom to collect standing water on the tank floor;

(d) One or more containers for collecting and transferring water; and

(e) One of the following for transferring the water remaining in the tank to the measuring container:

- (1) A wet vacuum.
- (2) A positive displacement pump.
- (3) An eductor with an air/water separator in line.

§ 153.1602 Test procedure for determining the stripping quantity.

(a) The stripping quantity of a tank must be determined by testing the tank under the procedures in paragraph (b) of this section unless the Coast Guard agrees under the provisions of § 153.10 to accept the stripping quantity, previously determined under paragraph (b) of this section, of a tank having similar geometry, internal structure, and piping system.

(b) When testing a tank for stripping quantity, the owner or operator of the ship shall proceed as follows:

(1) Make arrangements with the Officer in Charge, Marine Inspection, for a Coast Guard Marine Inspector to witness the stripping test.

(2) Clean and gas free the tanks to be tested.

(3) Determine the least favorable values of list and trim for drainage within the range allowed by the approved Procedures and Arrangements Manual.

(4) Maintain the ship's list and trim during the test to that determined under paragraph (b)(3) of this section.

(5) Load the tank with enough water so that unloading the water simulates the final stages of unloading a full tank of cargo.

(6) Pump out the water and strip the tank using the procedures specified in the approved Procedures and Arrangements Manual.

(7) After shutting the manifold valve, open any cargo pump foot valve to allow water trapped in the cargo pump to drain into the tank.

(8) Open all valves in the piping system except the manifold valve and allow the water to drain into the tank.

(9) Squeegee or sweep the water drained under paragraphs (b)(7) and (b)(8) of this section and any water that stands in puddles on the tank floor to the tank's low point or sump and collect in the container required by § 153.1600(b) using the equipment required in § 153.1600(e).

(10) With the manifold valve still closed, drain any water remaining in the piping system on the ship's side of the cargo transfer manifold valve into containers, and add this water to that collected from the tank under paragraph (b)(9) of this section. Water collected from a cargo line serving a block of tanks may be prorated between all the tanks it serves if—

(i) The ship owner requests, under the provisions of § 153.10, that the water be prorated; and

(ii) The ship's approved Procedures and Arrangements Manual specifies that no tank in the block be washed until all the tanks in the block have been discharged.

(c) Include any water that is trapped in dead end pipe sections, either by—

(1) Draining the pipe sections and adding the water to that collected in the container under paragraphs (b)(9) and (b)(10) of this section; or

(2) Adding an estimate of the water's volume to the sum calculated in paragraph (d) of this section using the pipe's dimensions, the ship's list and trim, and the geometry of the piping system.

(d) Measure the volume of water collected in the container under paragraphs (b)(9), (b)(10), and (c)(1) of this section and add to that volume the

volume, if any, estimated under paragraph (c)(2) of this section.

§ 153.1604 Determining the stripping quantity from the test results.

(a) For a single test, the stripping quantity is the volume of water calculated under § 153.1602(d).

(b) If multiple tests are made on a tank without modifications to the tank, pumping system, or stripping procedure between the tests, the stripping quantity must be taken as the average of the stripping quantities for all of the tests.

(c) If multiple tests are made on a tank with modifications to the tank, pumping system, or stripping procedure between the tests, the stripping quantity is the stripping quantity determined under paragraph (b) of this section using only those tests performed after the last modification.

§ 153.1608 Calculation of total NLS residue and clingage NLS residue.

(a) The total NLS residue for each tank is calculated by adding the stripping quantity and the clingage NLS residue.

(b) The clingage NLS residue for each tank is calculated using the following formula:

$$Q_{\text{clingage}} = 1.1 \times 10^{-4} A_d + 1.5 \times 10^{-5} A_w + 4.5 \times 10^{-4} L^{1/2} A_b$$

where:

A_b = Area of the tank bottom added to the area in square meters of tank structural components projected on a horizontal surface

A_d = Area of the tank underdecks added to the area in square meters of tank structural components projected on a horizontal surface

A_w = Area of the tank walls added to the area in square meters of tank structural components projected on a vertical surface

L = Length of tank in meters from fore to aft

Q_{clingage} = volume of clingage in cubic meters

When using the formula in this paragraph, areas that are inclined more than 30° from the horizontal may be assumed to be vertical.

Note.—The Commandant (G-MTH) (tel #202-267-1217) has information that may be useful in approximating surface areas of typical structural members for the projected area calculations under § 153.1608(b).

50. By revising Table 1 to Part 153 to read as follows:

TABLE 1—SUMMARY OF MINIMUM REQUIREMENTS

Cargo name ¹	IMO Annex II pollution category ²	Cargo containment system ³	Vent height ⁴	Vent ⁵	Gauge ⁶	Fire protection system ⁷	Special requirements ⁸	Electrical hazard class and group ⁹
# Acetic acid	D	III	4m	PV	Restr	A	.238(a), .527, .554	I-D
Acetic anhydride	C	II	4m	PV	Restr	A	.238(a), .526, .527, .554	I-D
# Acetone cyanohydrin	A	II	B/3	PV	Closed	A	.238(a), .316, .336, .408, .525, .526, .527, .912(a)(2), .933, .1002, .1004, .1020, .1035	I-D
Acetonitrile	III	II	B/3	PV	Restr	A	.525, .526, .1020	I-D
Acrylamide solution (50% or less)	D	II	NR	Open	Closed	NSR	.409, .525(a), (c), (d), (e), .912(a)(1), .1002(a), .1004, .1020	NA
Acrylic acid	D	III	4m	PV	Restr	A	.238(a), .526, .912(a)(1), .1002(a), .1004	I-D
Acrylonitrile	B	II	B/3	PV	Closed	A	.236(a), (c), (d), .316, .408, .525, .526, .527, .912(a)(1), .1004, .1020	I-D
# Adiponitrile	D	III	4m	PV	Restr	A	.526	I-D
*Alkyl acrylate—Vinyl pyridine copolymer in Toluene	C	III	4m	PV	Restr	A	.409	NA
Alkyl benzene sulfonic acid (greater than 4%)	C	III	NR	Open	Open	B	.440, .908(a)	NA
Allyl alcohol	B	II	B/3	PV	Closed	A	.316, .408, .525, .526, .527, .933, .1020	I-C
Allyl chloride	B	II	B/3	PV	Closed	A	.316, .408, .525, .526, .527, .1020	I-D
2-(2-Aminoethoxy) ethanol	D	III	NR	Open	Open	A, C, D	.236(b), (c), .409	NA
Aminoethylethanolamine	D	III	NR	Open	Open	A	.236(a), (b), (c), (g)	NA
*N-Aminoethylpiperazine	D	III	4m	PV	Restr	A, C, D	.236(b), (c), .408, .526	I-C
*2-Amino-2-methyl-1-propanol (90% or less)	D	III	NR	Open	Open	A	None	I-D ¹⁵
Ammonium hydroxide (28% or less NH ₃)	C	III	4m	PV	Restr	C	.236(b), (c), (f), .526, .527	I-D
*Ammonium nitrate solution (greater than 45% and less than 83%)	D	II	NR	Open	Open	NSR	.336, .409, .554(a), (b)	NA
*Ammonium sulfide solution (45% or less)	B	II	B/3	PV	Closed	A, C	.236(a), (b), (c), (g), .372, .408, .525, .526, .933, .1002, .1020	I-D
*Ammonium thiosulfate solution (60% or less)	C	III	NR	Open	Open	NSR		NA
*(commercial, iso-, n-, sec-) Amyl Acetate	C	III	4m	PV	Restr	A	.409	I-D
# Aniline	C	II	B/3	PV	Closed	A	.316, .408, .525, .526, .933, .1020	I-D
# Benzene, or hydrocarbon mixtures containing 10% or more Benzene	C	III	B/3	PV	Restr	B	.316, .440, .526, .908(b), .1060	I-D
Benzenesulfonyl chloride	D	III	4m	PV	Restr	B, D	.236(a), (b), (c), (g), .409, .526	I-D
*Benzyl alcohol	C	III	NR	Open	Open	A	None	I-D
# Benzyl chloride	B	II	B/3	PV	Closed	B	.316, .408, .525, .526, .527, .912(a)(2), .1004, .1020	I-D
*(iso-, n-) Butyl acetate	C	III	4m	PV	Restr	A	.409	I-D
(iso-, n-) Butyl acrylate	D	II	4m	PV	Restr	A	.526, .912(a)(1), .1002(a), (b), .1004	I-D
# Butylamine (all isomers)	C	II	B/3	PV	Restr	A	.236(b), (c), .316, .408, .525, .526, .527, .1020	I-D
*Butyl benzyl phthalate	A	II	NR	Open	Open	A	.409, .440, .908(a)	I-D
*1,2-Butylene oxide	C	III	4m	PV	Restr	A, C	.372, .408, .440, .500, .526, .530(a), (c), (e)-(g), (m)-(o), .1010, .1011	I-B ¹⁵
n-Butyl ether	C	III	B/3	PV	Restr	A, D	.500, .525, .526, .1020	I-C
Butyl methacrylate	D	III	4m	PV	Restr	A, D	.526, .912(a)(1), .1002(a), (b), .1004	I-D
Butyl methacrylate, Decyl methacrylate, Cetyl-Eicosyl methacrylate mixture	D	III	4m	PV	Restr	A, C, D	.912(a)(1), .1002(a), (b), .1004	I-D
(n-, crude) Butyraldehyde	B	III	4m	PV	Open	A	.526	I-C
iso-Butyraldehyde	C	III	4m	PV	Open	A	.526	I-C
*Butyric acid	B	III	4m	PV	Restr	A	.238(a), .554	I-D
*Calcium hypochlorite solution (13% or less)	C	III	4m	PV	Restr	NSR	.409	NA

TABLE 1—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo name ¹	IMO Annex II pollution category ²	Cargo containment system ³	Vent height ⁴	Vent ⁵	Gauge ⁶	Fire protection system ⁷	Special requirements ⁸	Electrical hazard class and group ⁹
*Calcium hypochlorite solution (more than 13%).	B	III	4m	PV	Restr	NSR	.409	NA
*Calcium naphthanate in Mineral oil mixture	A	III	NR	PV	Open	A	.440, .908(a)	NA
#Camphor oil	B	II	4m	PV	Open	B	.409	I-D
#Carbolic oil	A	II	B/3	PV	Closed	A	.408, .440, .525, .526, .908(b), .933, .1020	NA
Carbon disulfide	B	II	B/3	PV	Closed	C	.236(c), .252, .408, .500, .515, .520, .525, .526, .527, .1020, .1040.	I-A
Carbon tetrachloride	B	III	B/3	PV	Closed	NSR	.316, .408, .525, .526, .527, .1020.	NA
Cashew nut shell oil (untreated)	D	III	4m	PV	Restr	B	.526, .933	NA
#Caustic potash solution	C	III	NR	Open	Open	NSR	.236(a), (c), (g), .440, .908(b), .933	NA
Caustic soda solution	D	III	NR	Open	Open	NSR	.236(a), (c), (g), .933	NA
Cetyl-Eicosyl methacrylate	III	III	NR	Open	Open	A, C, D	.912(a)(1), .1002(a), (b), .1004	NA
*Chloroacetic acid (80% or less)	C	II	B/3	PV	Closed	NSR	.236(a), .238(a), .408, .440, .554, .908(b)	I-D
#Chlorobenzene	B	II	4m	PV	Restr	B	.409, .526	I-D
Chloroform	B	III	B/3	PV	Restr	NSR	.525, .526, .527, .1020	NA
(crude) Chlorohydrins	D	II	B/3	PV	Closed	A	.408, .525, .526, .1020	I-D
*4-Chloro-2-methylphenoxacetic acid, dimethylamine salt.	C	III	NR	Open	Open	NSR	None	NA
o-Chloronitrobenzene see o-Nitrochlorobenzene								
#2- or 3-Chloropropionic acid	C	III	NR	Open	Open	A	.238(a), .440, .554, .908(b)	NA
Chlorosulfonic acid	C	I	B/3	PV	Closed	NSR	.408, .525, .526, .527, .554, .555, .602, .933, .1000, .1020, .1045.	I-B ¹¹
o-Chlorotoluene	A	III	4m	PV	Restr	B, C	.526	I-D
m-Chlorotoluene	B	III	4m	PV	Restr	B, C	.526	I-D
#p-Chlorotoluene	B	II	4m	PV	Restr	B, C	.409, .440, .526, .908(b)	I-D
*Chlorotoluenes (mixed isomers)	A	II	4m	PV	Restr	B, C	.409, .440, .526, .908(b)	I-D
*Coal tar	A	II	4m	PV	Restr	B, D	.409	I-D ¹⁵
#Coal tar naphtha solvent	B	III	4m	PV	Restr	A, D	.526	I-D
*Coal tar pitch (molten)	D	III	4m	PV	Restr	B, D	.409	I-D ¹⁵
#Creosote (wood)	A	II	NR	Open	Open	B, D	.409	NA
#Creosote (coal tar)	C	III	NR	Open	Open	B, D	.409	I-D
#Cresols	A	II	NR	Open	Open	B	.409, .440, .908(b)	I-D
Cresylate spent caustic (mixtures of Cresols and Caustic soda solutions).	I	III	NR	Open	Open	NSR	.236(a), (c), .933	NA
Crotonaldehyde	B	II	B/3	PV	Restr	A	.316, .525, .526, .527, .1020	I-C
*Cumene	B	III	4m	PV	Restr	A	.409	I-D
*Cyclohexane	C	III	4m	PV	Restr	A	.409, .440, .908(b)	I-D
*Cyclohexanol	C	III	NR	Open	Open	A	.440, .908(a), (b)	I-D
Cyclohexanone	D	III	4m	PV	Restr	A	.236(a), (b), .526	I-D
Cyclohexylamine	C	III	4m	PV	Restr	A, D	.236(a), (b), (c), (g), .526	I-D
*p-Cymene	C	III	4m	PV	Restr	A	.409	I-D
*Decene	B	III	4m	PV	Restr	A	.409	I-D
#(iso-, n-) Decyl acrylate	A	II	NR	Open	Open	A, C, D	.236(a), (b), (c), .409, .912(a)(1), .1002(a), (b), .1004	I-D ¹⁵
*Decyl alcohol (all isomers)	B	III	NR	Open	Open	A	.440, .908(b)	I-D
#Diammonium salt of Zinc ethylenediamine tetraacetic acid solution ¹³ .		III	NR	Open	Open	NSR	.236(a), .238(a)	I-B
Dibutylamine	C	III	4m	PV	Restr	B, D	.236(b), (c), .526	I-C
Dibutyl phthalate	A	II	NR	Open	Open	A	.409	I-D
#o-Dichlorobenzene	B	III	4m	PV	Restr	B, D	.236(a), (b), .409, .526	I-D

TABLE 1—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo name ¹	IMO Annex II pollution category ²	Cargo containment system ³	Vent height ⁴	Vent ⁵	Gauge ⁶	Fire protection system ⁷	Special requirements ⁸	Electrical hazard class and group ⁹
1,1-Dichloroethane	B	III	4m	PV	Restr	B	.526, .527	I-D
#2,2'-Dichloroethyl ether	B	II	4m	PV	Restr	A	.236(a), (b), .526	I-C ¹⁵
2,2'-Dichloroisopropyl ether	C	II	B/3	PV	Restr	B, C, D	.236(a), (b), .316, .408(a), .440, .525, .526, .1020	I-D
#Dichloromethane	D	III	4m	PV	Restr	NSR	.526	I-D ¹⁵
#2,4-Dichlorophenol ¹⁴	A	II	4m	PV	Restr	B, C, D	.236(a), (b), (c), (g), .409, .440, .500, .501, .526, .908(b), .933	I-D ¹⁵
*2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	A	III	NR	Open	Open	NSR	None	NA
*2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution	A	III	NR	Open	Open	NSR	None	NA
*2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	A	III	NR	Open	Open	NSR	None	NA
1,1-, 1,2-, or 1,3-Dichloropropane	B	II	B/3	PV	Restr	B	.525, .526, .1020	I-D
1,3-Dichloropropene	B	II	B/3	PV	Closed	B	.316, .336, .408, .525, .526, .527, .1020	I-D
#Dichloropropene, Dichloropropane mixtures	B	II	B/3	PV	Closed	B, C, D	.316, .336, .408, .526, .527	I-D
2,2-Dichloropropionic acid	D	III	4m	PV	Restr	A	.236(a), .238(a), .266, .500, .501, .554	NA
Diethanolamine	III	III	NR	Open	Open	A	.236(b), (c)	NA
Diethylamine	C	III	B/3	PV	Restr	A	.236(a), (b), (c), (g), .525, .526, .527, .1020	I-C
Diethylaminoethanol see Diethylethanolamine								
*Diethylbenzene	C	III	4m	PV	Restr	A	.409	I-D
*Diethylene glycol methyl ether	C	III	NR	Open	Open	A	None	I-C
Diethylenetriamine	D	III	NR	Open	Open	A	.236(b), (c)	NA
Diethylethanolamine	C	III	4m	PV	Restr	A, D	.236(a), (b), (c), (g), .526	I-C
*Di-(2-ethylhexyl) phosphoric acid	C	III	NR	Open	Open	B, C, D	.236(b), (c)	I-D
*Diethyl phthalate	C	III	NR	Open	Open	A	None	I-D
#Diethyl sulfate	B	II	4m	PV	Closed	A, D	.236(a), (c), (d), .526	I-D ¹⁵
*Diglycidyl ether of Bisphenol A	B	III	NR	Open	Open	A	.440, .908(b)	NA
Diisobutylamine	C	II	4m	PV	Restr	B, D	.236(a), (b), (c), (g), .409, .525(a) (c), (d), (e), .526, .1020	I-C
*Diisobutylene	B	III	4m	PV	Restr	A	.409	I-D
*Diisobutyl phthalate	B	III	NR	Open	Open	A	.440, .908(a)	I-D
#Diisopropanolamine	C	III	NR	Open	Open	A	.236(b), (c), .440, .908(a), (b)	I-D ¹⁵
Diisopropylamine	C	II	B/3	PV	Closed	A	.236(b), (c), .408, .525, .526, .527, .1020	I-C
*Diisopropyl benzene (all isomers)	A	II	NR	Open	Open	A	.409	I-D
*N,N-Dimethyl acetamide	D	III	B/3	PV	Restr	B	.236(b), .316, .525, .526, .527, .1020	I-D ¹⁵
#Dimethylamine solution (45% or less)	C	III	B/3	PV	Restr	C, D	.236(a), (b), (c), (g), .525, .526, .527, .1020	I-C
*Dimethylamine solution (over 45% but not over 55%)	C	II	B/3	PV	Closed	A, C, D	.236(a), (b), (c), (g), .316, .408, .525, .526, .527, .1020	I-C
*Dimethylamine solution (over 55% but not over 65%)	C	II	B/3	PV	Closed	A, C, D	.236(a), (b), (c), (g), .316, .372, .408, .525, .526, .527, .1020	I-C
*N,N-Dimethylcyclohexylamine	C	II	B/3	PV	Restr	A, C	.236(a), (b), (c), (g), .409, .525, .526, .527, .1020	NA
Dimethylethanolamine	D	III	4m	PV	Restr	A, D	.236(b), (c), .526	I-C
Dimethylformamide	D	III	4m	PV	Restr	A, D	.236(b), .526	I-D
*Dimethyl hydrogen phosphite	C	III	4m	PV	Restr	A, D	.526	NA
*Dimethyl phthalate	C	III	NR	Open	Open	A	None	I-D
*Dinitrotoluene (molten)	B	II	B/3	PV	Closed	A	.316, .408, .440, .525, .526, .527, .908(a), .1020	I-C
1,4-Dioxane	D	II	B/3	PV	Closed	A	.408, .525, .526, .1020	I-C
*Dipentene	C	III	4m	PV	Restr	A	.409	I-D

TABLE 1—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo name ¹	IMO Annex II pollution category ²	Cargo containment system ³	Vent height ⁴	Vent ⁵	Gauge ⁶	Fire protection system ⁷	Special requirements ⁸	Electrical hazard class and group ⁹
*Diphenyl	A	II	NR	Open	Open	B	.409	I-D ¹⁵
*Diphenyl/Diphenyl oxide mixtures	A	II	NR	Open	Open	B	.409	I-D ¹⁵
*Diphenyl ether	A	III	NR	Open	Open	A	.440, .908(b)	I-D
#Diphenyl methane diisocyanate ¹²	B	II	B/3	PV	Closed	C, D	.236(a), (b), .316, .440, .500, .501, .525, .526, .602, .908(a), .1000, .1020	NA
*Diphenyl oxide, Biphenyl phenyl ether mixtures	A	III	NR	Open	Open	B	None	NA
Di-n-propylamine	C	III	4m	PV	Restr.	A	.236(b), (c), .409, .525, .526, .1020	I-C
*Dodecanol	B	III	NR	Open	Open	A	.440, .908(a), (b)	I-D
*Dodecene (all isomers)	B	III	NR	Open	Open	A	None	I-D
Dodecyl alcohol see Dodecanol								
*Dodecylbenzene	C	III	NR	Open	Open	A	None	I-D
#Dodecyl diphenyl oxide disulfonate solution	B	III	NR	Open	Open	NSR	.440, .908(a)	NA
Dodecyl methacrylate	III	III	NR	Open	Open	A, C	.236(b), (c), .912(a)(1), .1004	I-D
Dodecyl-Pentadecyl methacrylate mixture	III	III	NR	Open	Open	A, C, D	.912(a)(1), .1002(a), (b), .1004	NA
*Dodecyl phenol	A	I	NR	Open	Open	A	.408	I-D
Epichlorohydrin	A	II	B/3	Open	Closed	A	.316, .408, .525, .526, .527, .1020	I-C
#Ethanolamine	C	III	NR	Open	Open	A	.236(b), (c), .526	I-C
*2-Ethoxyethyl acetate	C	III	4m	PV	Restr.	A	.409	I-C
Ethyl acrylate	B	II	4m	PV	Restr.	A	.526, .527, .912(a)(1), .1002(a), (b), .1004	I-D
*Ethylamine	C	II	B/3	PV	Closed	C, D	.236(b), (c), .372, .525, .526, .527, .1020	I-D
#Ethylamine solution (72% or less)	C	II	B/3	PV	Closed	A, C	.236(a), (b), (c), (g), .372, .408, .525(a), (c), (d), (e), .526, .527, .1020	I-D
*Ethyl benzene	C	III	4m	PV	Restr.	A	.409	I-D
N-Ethylbutylamine	C	III	4m	PV	Restr.	A	.236(a), (b), (c), (g), .409, .525(a), (c), (d), (e), .526, .1020	I-C
*Ethyl butyrate	C	III	4m	PV	Restr.	A	.236(a), (b), (c), (g), .409, .526	I-D
N-Ethylcyclohexylamine	D	III	4m	PV	Restr.	A, C	.316, .408, .525, .526, .527, .933, .1020	I-C
#Ethylene chlorohydrin	C	II	B/3	PV	Closed	D	None	I-D
Ethylene cyanohydrin	D	III	NR	Open	Open	A	None	NA
#Ethylenediamine	D	II	4m	PV	Restr.	A	.236(b), (c), .440, .526, .908(b)	I-D
#Ethylene dibromide	B	II	B/3	PV	Closed	NSR	.408, .440, .525, .526, .527, .908(b), .1020	NA
#Ethylene dichloride	B	II	4m	PV	Restr.	B	.236(b), .408, .526	I-D
*Ethylene glycol diacetate	C	III	NR	Open	Open	A	.409	I-D ¹⁵
*Ethylene glycol ethyl ether acetate	C	III	NR	Open	Open	A	None	I-C
*Ethylene oxide (30% or less), Propylene oxide	D	II	B/3	PV	Closed	A, C	.372, .408, .440, .500, .525, .526, .530, .1010, .1011, .1020	I-B
Ethyl ether	A	.236(g), .252, .372, .408, .440, .500, .515, .526, .527	I-C					
#2-Ethylhexyl acrylate	D	III	NR	Open	Open	A	.912(a)(1), .1002(a), (b), .1004	I-D
#2-Ethylhexylamine	B	II	B/3	PV	Restr.	A	.236(b), (c), .525, .526, .1020	I-D ¹⁵
Ethylidene norbornene	B	III	B/3	PV	Restr.	B, C, D	.236(b), .409, .526	NA

TABLE 1—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo name ¹	IMO Annex II pollution category	Cargo containment system ³	Vent height ⁴	Vent ⁵	Gauge ⁶	Fire protection system ⁷	Special requirements ⁸	Electrical hazard class and group ⁹
Ethyl methacrylate.....	D	III	4m	PV.....	Restr.....	B, D	.526, .912(a)(1), .1002(a), (b), .1004	I-D ¹⁵
*Ethyl phenol.....	A	III	NR	Open.....	Open.....	B	None.....	I-D ¹⁵
# 2-Ethyl-3-propyl acrolein.....	B	III	4m	PV.....	Restr.....	A	.440, .526, .908(b)	I-C
*Ethyl toluene.....	B	III	4m	PV.....	Restr.....	A	.409	I-D
*Fatty alcohols, C ₁₂ -C ₂₀	B	III	NR	Open.....	Open.....	A	.440, .908(a)	NA
# Formaldehyde (50% or more), Methanol mixtures.....	—	III	4m	PV.....	Closed.....	A	.526, .527	I-B
# Formaldehyde solution (37% to 50%).....	C	III	4m	PV.....	Restr.....	A	.526, .527	I-B
Formic acid.....	D	III	4m	PV.....	Restr.....	A	.238(b), (c), .526, .527, .554	I-D
*Fumaric adduct of rosin, water dispersion.....	B	III	NR	Open.....	Open.....	NSR	.440, .908(a)	NA
Furfural.....	C	III	4m	PV.....	Restr.....	A	.526	I-C
*Furfuryl alcohol.....	C	III	NR	Open.....	Open.....	A	None.....	I-C
Glutaraldehyde solution (50% or less).....	D	III	NR	Open.....	Open.....	NSR	None.....	NA
*Glycidyl ester of tridecyl acetic acid.....	B	III	NR	Open.....	Open.....	A	None.....	NA
*Heptanol (all isomers).....	C	III	4m	PV.....	Restr.....	A	.409	I-D
*Heptene (mixed isomers).....	C	III	4m	PV.....	Restr.....	A	.409	I-D
*Heptyl acetate.....	B	III	NR	Open.....	Open.....	A	None.....	NA
# Hexamethylenediamine solution.....	C	III	4m	PV.....	Restr.....	A, C	.236(b), (c), .409, .440, .526, .908(b)	I-D
Hexamethylenimine.....	C	II	4m	PV.....	Restr.....	A	.236(a), (b), (c), (g), .526	I-C
*1- or 2-Hexene.....	C	III	4m	PV.....	Restr.....	A	.409	I-D
*Hexyl acetate.....	B	III	NR	PV.....	Restr.....	A	.409	I-D
Hydrochloric acid.....	D	III	4m	PV.....	Restr.....	NSR	.252, .526, .527, .554, .557, .933, .1045, .1052	I-B ¹¹
*Hydrogen peroxide solutions (over 8% but not over 60%).....	C	III	B/3	PV.....	Closed.....	NSR	.238(a), (c), .355, .409, .440(a) (1)&(2), .500, .933, .1004(a)(2), .1500	NA
*Hydrogen peroxide solutions (over 60% but not over 70%).....	C	II	B/3	PV.....	Closed.....	NSR	.238(a), (c), .355, .409, .440(a) (1)&(2), .500, .933, .1004(a)(2), .1500	NA
2-Hydroxyethyl acrylate.....	B	II	B/3	PV.....	Closed.....	A	.408, .525, .526, .912(a)(1), .933, .1002(a), (b), .1004, .1020	NA
Isophorone diamine.....	D	III	4m	PV.....	Restr.....	A	.236(b), (c), .526	NA
# Isophorone diisocyanate ¹²	B	III	B/3	PV.....	Closed.....	C, D	.236(a), (b), .316, .500, .501, .526, .602, .1000, .1020	NA
Isoprene.....	C	III	4m	PV.....	Restr.....	B	.372, .440, .912(a)(1), .1002(a) (b), .1004	I-D
Isopropyl benzene see Cumene								
*Lactonitrile solution (80% or less).....	B	II	B/3	PV.....	Closed.....	A, C, D	.316, .336, .408, .525, .526, .527, .1002, .1020, .1035	I-D ¹⁵
# Maleic anhydride ¹⁰	D	III	4m	PV.....	Restr.....	A, C ¹⁰	None.....	I-D ¹⁵
Mercaptobenzothiazol, sodium salt see Sodium-2-mercaptobenzothiazol solution								
Mesityl oxide.....	D	III	4m	PV.....	Restr.....	A	.409, .526	I-D
Methacrylic acid.....	D	III	4m	PV.....	Restr.....	A	.238(a), .526, .912(a)(1), .1002(a), .1004	NA
*Methacrylonitrile.....	B	II	B/3	PV.....	Closed.....	A	.236(a), .316, .408, .525, .526, .527, .912(a)(1), .1002(a), .1004, .1020	NA
# Methyl acrylate.....	C	II	4m	PV.....	Restr.....	B	.526, .527, .912(a)(1), .1002(a), (b), .1004	I-D
# Methylamine solution (42% or less).....	C	II	B/3	PV.....	Closed.....	A, C, D	.236(a), (b), (c), (g), .316, .408, .525, .526, .527, .1020	I-D
*Methylamyl acetate.....	C	III	4m	PV.....	Restr.....	A	.409	I-D
*Methylamyl alcohol.....	C	III	4m	PV.....	Restr.....	A	.409	I-D
*Methylamyl ketone.....	C	III	4m	PV.....	Restr.....	A	.409	I-D
*Methyl butyrate.....	C	III	4m	PV.....	Restr.....	A	.409	I-D ¹⁵

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TABLE 1—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo name ¹	IMO Annex II pollution category ²	Cargo containment system ³	Vent height ⁴	Vent ⁵	Gauge ⁶	Fire protection system ⁷	Special requirements ⁸	Electrical hazard class and group ⁹
# Polyethylene polyamines.....	C	III	NR	Open.....	Open.....	A	.236(b), (c), .400, .440, .908(b)	NA
Polymethylene polyphenyl isocyanate ¹²	D	II	B/3	PV.....	Closed.....	C, D	.236(a), (b), .409, .500, .501, .525, .526, .502, .1000, .1020.	NA
Potassium hydroxide solution see Caustic potash solution								
# iso-Propanolamine.....	C	III	NR	Open.....	Open.....	A	.236(b), (c), .440, .526, .908(a)	NA
# n-Propanolamine.....	C	III	NR	Open.....	Open.....	A	.236(b), (c), .440, .526, .908(b)	NA
Propionaldehyde.....	D	III	4m	PV.....	Restr.....	A	.316, .526, .527.....	I-C
Propionic acid.....	D	III	4m	PV.....	Restr.....	A	.238(a), .527, .554.....	I-D
# Propionic anhydride.....	C	III	4m	PV.....	Restr.....	A	.238(a), .526.....	I-D
* Propionitrile.....	C	II	B/3	PV.....	Closed.....	A, D	.316, .336, .408, .525, .526, .527, .1020	I-D
iso-Propylamine.....	C	II	B/3	PV.....	Closed.....	C, D	.236(b), (c), .372, .408, .440, .525, .526, .527, .1020	I-D
n-Propylamine.....	C	II	B/3	PV.....	Closed.....	C, D	.236(b), (c), .408, .500, .525, .526, .527, .1020	I-D
* Propylene dimer.....	C	III	4m	PV.....	Restr.....	A	.409.....	NA
Propylene oxide.....	D	II	B/3	PV.....	Closed.....	A, C	.372, .408, .440, .500, .526, .530, .1010, .1011	I-B
* Propylene trimer.....	B	III	4m	PV.....	Restr.....	A	.409.....	I-D
iso-Propyl ether.....	D	III	4m	PV.....	Restr.....	A	.409, .500, .515, .912(a)(1).....	I-D
Pyridine.....	B	III	NR	Open.....	Open.....	A	.236(b).....	I-D
* Rosin oil.....	B	III	NR	Open.....	Open.....	NSR	.440, .908(b).....	NA
* Rosin soap (disproportionated) solution.....	C	III	NR	Open.....	Open.....	NSR	None.....	NA
# Sodium borohydride (15% or less), Sodium hydroxide solution.....	III	III	NR	Open.....	Open.....	NSR	.236(a), (b), (c), (g), .440, .908(a) .933	NA
Sodium chlorate solution (50% or less).....	B	II	B/3	Open.....	Closed.....	NSR	.409, .933, .1065.....	NA
* Sodium dichromate solution (70% or less).....	D	III	NR	Open.....	Open.....	NSR	.236(b), (c), .408, .525, .933, .1020	NA
* Sodium hydrogen sulfite solution (35% or less).....	B	III	NR	Open.....	Open.....	NSR	None.....	NA
# Sodium hydrosulfide solution (45% or less).....	B	III	4m	PV.....	Restr.....	NSR	.526, .440, .908(b), .933.....	NA
* Sodium hydrosulfide/Ammonium sulfide solution.....	B	II	B/3	PV.....	Closed.....	A, C	.236(a), (b), (c), (g), .316, .372, .408, .525, .526, .527, .933, .1002, .1020.	NA
Sodium hydroxide solution see Caustic soda solution								
# Sodium hypochlorite solution (15% or less).....	C	III	4m	PV.....	Restr.....	NSR	.236(a), (b).....	NA
# Sodium-2-mercaptobenzothiazol solution.....	B	III	NR	Open.....	Open.....	NSR	.236(a), (b), (c), (g), .440, .908(b), .933.....	NA
* Sodium thiocyanate (56% or less).....	B	III	NR	Open.....	Open.....	NSR	.238(a).....	NA
# Styrene.....	III	III	4m	PV.....	Open.....	B	.236(b), .409, .912(a)(1), .1002(a), (b), .1004	I-D
Sulfur (molten).....	C	III	NR	Open.....	Open.....	NSR	.252, .440, .526, .545.....	I-C
# Sulfuric acid.....	C	III	NR	Open.....	Open.....	NSR	.440, .554, .555, .556, .602, .908(a), (b), .933, .1000, .1045, .1046, .1052.	I-B ¹¹
*Tail oil, crude and distilled								
* Tail oil, fatty acid (resin acids less than 20%).....	B	III	NR	Open.....	Open.....	A	.440, .908(a).....	NA
* Tail oil soap (disproportionated) solution.....	B	III	NR	Open.....	Open.....	A	None.....	NA
1,1,2,2-Tetrachloroethane.....	D	III	B/3	PV.....	Restr.....	NSR	.440, .908(a).....	NA
# Tetraethylenepentamine ¹³	D	III	NR	Open.....	Open.....	A	.316, .525, .526, .1020	I-C ¹⁵
Tetrahydrofuran.....	D	III	4m	PV.....	Restr.....	A, D	.236(b), (c), (g).....	I-C
* Tetrahydronaphthalene.....	C	III	4m	Open.....	Open.....	A	.526, .912(a)(2), .1004.....	I-D
* Toluene.....	C	III	4m	PV.....	Restr.....	A	None.....	I-D
# Toluenediamine.....	C	II	B/3	PV.....	Closed.....	B, C, D	.236(a), (b), (c), (g) .316, .408, .440, .525, .526, .527, .908(b), .933, .1020.	I-D

TABLE 1—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo name ¹	IMO Annex II pollution category ²	Cargo containment system ³	Vent height ⁴	Vent ⁵	Gauge ⁶	Fire protection system ⁷	Special requirements ⁸	Electrical hazard class and group ⁹
#Toluene diisocyanate ¹²	C	II	4m	PV	Closed	C, D	.236(b), .316, .408, .440, .500, .501, .525, .526, .527, .602, .908(b), .1000, .1020	I-D ¹⁵
#o-Toluidine	C	II	B/3	PV	Closed	A, C	.316, .408, .525, .526, .933, .1020	I-D ¹⁵
*Tributyl phosphate	B	III	NR	Open	Open	A	None	I-D
#1,2,4-Trichlorobenzene	B	II	4m	PV	Restr	C	.409, .440, .526, .908(b)	I-D
*1,1,1-Trichloroethane	B	III	NR	Open	Open	A	None	I-D
1,1,2-Trichloroethane	B	III	B/3	PV	Restr	NSR	.526	I-D
Trichloroethylene	B	III	B/3	PV	Restr	NSR	.316, .525, .526, .1020	I-D
1,2,3-Trichloropropane	B	III	B/3	PV	Restr	B, C, D	.316, .408, .525, .526, .1020	I-D
*1,1,2-Trichloro-1,2,2-trifluoroethane	C	III	NR	Open	Closed	NSR	None	NA
*Tricresyl (trityl) phosphate (less than 1% of ortho isomer)	A	II	NR	Open	Open	A	.409, .440, .908(a)	I-D ¹⁵
#Tricresyl (trityl) phosphate (1% or more of the ortho isomer)	A	I	4m	PV	Closed	B	.408, .440, .525(a), (c), (d), (e), .908(a), .1020	I-D ¹⁵
*Tridecyl benzene	C	III	NR	Open	Open	NSR	None	I-D ¹⁵
#Triethanolamine	D	III	NR	Open	Open	A	.236(a), (b), (c), (g)	I-C ¹⁵
Triethylamine	C	II	B/3	PV	Restr	B	.236(b), (c), .525, .526, .527, .1020	I-C
*Triethylbenzene	A	II	NR	Open	Open	A	.409	I-D
*Triethylenetetramine	D	II	NR	Open	Open	A	.236(a), (b), (c)	I-C ¹⁵
*Triethyl phosphite	I	III	B/3	PV	Restr	A, D	.526	NA
Trimethylacetic acid	D	III	4m	PV	Restr	A, C	.238(a), .266, .554	I-D
*1,2,4-Trimethyl benzene	B	III	4m	PV	Restr	A	.409	I-D
Trimethylhexamethylene diamine (2,2,4- and 2,4,4-isomers)	D	III	NR	Open	Open	A, C	.236(a), (b), (c), (g), .409	NA
#Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-isomers) ¹²	B	II	B/3	PV	Closed	A, C ¹²	.316, .500, .501, .525, .526, .602, .1000, .1020	NA
*2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	C	III	NR	Open	Open	A	None	I-D
*Trimethyl phosphite	I	III	4m	PV	Restr	A, D	.409, .526, .1000	I-D
*Triphenyl phosphate	A	I	NR	Open	Open	A	.408, .440, .908(a)	NA
*Turpentine	B	III	4m	PV	Restr	A	.409	I-D
*1-Undecene	B	III	NR	Open	Open	A	None	I-D
*Undecyl alcohol	B	III	NR	Open	Open	A	.440, .908(b)	I-D
Urea, Ammonium nitrate solution (containing more than 2% NH ₃)	C	III	4m	PV	Restr	A	.236(b), .526	I-D
iso-Valeraldehyde	C	III	4m	PV	Restr	A	.500, .526	I-C
n-Valeraldehyde	D	III	4m	PV	Restr	A	.500, .526	I-C
Vinyl acetate	C	III	4m	PV	Open	A	.912(a)(1), .1002(a), (b), .1004	I-C
#Vinyl ethyl ether	C	II	4m	PV	Closed	A	.236(b), (d), (f), (g), .372, .408, .440, .500, .515, .526, .527, .912(a)(1), .1002(a), (b), .1004	I-D
Vinylidene chloride	B	II	4m	PV	Restr	B	.236(a), (b), .372, .440, .550, .526, .527, .912(a)(1), .1002(a), (b), .1004	I-D
Vinyl neodecanate	C	III	NR	Open	Open	B	.912(a)(1), .1002(a), (b), .1004	NA
Vinyl toluene	A	III	4m	PV	Restr	D	.236(a), (b), (c), (g), .409, .912(a)(1), .1002(a), (b), .1004	I-D
*White spirit (low (15-20%) aromatic)	B	II	4m	PV	Restr	A	.409	NA
*Xylenes ¹⁶	C	III	4m	PV	Restr	A	.409, .440, .908(b)	I-D
#Xylenol	B	III	NR	Open	Open	B	.440, .908(a), (b)	NA

* denotes newly added products.

denotes products which have had carriage requirements changed or added.
 — under Annex II Pollution Category denotes pollution category not yet determined.

[Entries in **boldface** are cargoes whose requirements are less stringent than in the NPRM]

COLUMN HEADING FOOTNOTES:

- 1 The cargo name must be as it appears in this column (see §§ 153.5, 153.900, 153.907).
- 2 This column lists the IMO Annex II Pollution Category (III indicates the cargo is not a NLS).
- 3 This column lists the type of containment system the cargo must have (see §§ 153.230 through 153.232).
- 4 This column lists the height of any vent riser required (see §§ 153.350 and 153.351).
- 5 This column lists any vent control valve required (see § 153.355).
- 6 This column lists the type of gauging system required (see §§ 153.400 through 153.406).
- 7 This column lists the type of fire protection system required. Where more than one system is listed as an alternative or the substitution is approved by Commandant (G-MTH) (§ 153.460). The types are as follows:
 either type of foam system unless the dry chemical system is listed as an alternative or the substitution is approved by Commandant (G-MTH) (§ 153.460). The types are as follows:
 A is a foam system for water insoluble cargoes (non-polar solvent foam).
 B is a foam system for water soluble cargoes (polar solvent foam).
 C is a water spray system.
 D is a dry chemical system.
- NSR means there is no special requirement applying to fire protection systems.
- 8 This column lists sections that apply to the cargo in addition to the general requirements of this part. The 153 Part number is omitted.
- 9 This column lists the electrical hazard class and group used for the cargo when determining requirements for electrical equipment under Subchapter J (Electrical engineering) of this chapter.

FOOTNOTES OF SPECIFIC CARGOES:

- 10 Dry chemical extinguishers should not be used on fires involving this cargo since some dry chemicals may react with the cargo and cause an explosion.
- 11 The 1-B electrical hazard for acids does not apply to weather deck locations. See 46 CFR Part 111.
- 12 Water is effective in extinguishing open air fires but will generate hazardous quantities of gas if put on the cargo in enclosed spaces.
- 13 Aluminum is a questionable material of construction with this cargo since pitting and corrosion have been reported. The IMO Chemical Code prohibits aluminum as a material of construction for this cargo.
- 14 Some tank pitting has been reported when this cargo is contaminated with water, including moisture in the air. The IMO Chemical Code requires that the vapor space over this cargo be kept dry.
- 15 Electrical Hazard Class and Group based upon that which appears in "Classification of Gases, Liquids and Volatile Solids Relative to Explosion-Proof Electrical Equipment", Publication NMAB 353-5, National Academy Press, 1982, but not appearing in NFPA 497M, "Manual for Classification of Gases, Liquids and Dusts for Electrical Equipment in Hazardous Classified Locations." See also Subchapter J (Electrical Engineering) of this chapter.
- 16 Special requirement .908(b) only applies to the para isomer.

Appendix I—[Reserved]

51. By removing and reserving Appendix I and adding Table 2 to follow Table 1 to read as follows:

Table 2—List of Cargoes Not Regulated Under Subchapter D or Under Subchapter O of This Title when carried in Bulk

Ammonium nitrate solution (45% or less)
Ammonium nitrate, Urea solution (2% or less NH_3)
Ammonium phosphate solution
Ammonium phosphate, Urea solution
Ammonium polyphosphate
Ammonium sulfate solution (20% or less)
Apple juice
Calcium bromide solution
Calcium chloride solution
Chlorinated paraffin (C_{14} - C_{17}) with 52% Chlorine
Choline chloride solutions
1,4-Dihydro-9,10-dihydroxy anthracene, disodium salt solution
Ethylene-Vinyl acetate copolymer (emulsion)
Glucose or Dextrose solutions
Glycine, sodium salt solution
Hexamethylenediamine adipate
Kaolin clay slurry
Magnesium chloride solution
Magnesium hydroxide suspensions in water
Milk
Molasses
Pentasodium salt of Diethylenetriamine pentaacetic acid solution
Polyaluminum chloride solution
Sodium aluminosilicate slurry
Sodium carbonate solutions
Sodium silicate solution
Sorbitol solution

Tetrasodium salt of Ethylenediamine tetraacetic acid solution
Trisodium salt of N-Hydroxyethyl ethylenediamine triacetic acid solution
Urea solution

Water

52. By amending Appendix III by adding a new entry in proper alphabetical order to read as follows:

APPENDIX III—METRIC UNITS USED IN PART 153

Parameter	Metric (SI) Unit	Abbreviation	Equivalent to English or Common Metric
Viscosity	milli-Pascal second	mPa.sec	1.0 centipoise

PART 172—SPECIAL RULES PERTAINING TO BULK CARGOES

53. The authority citation for Part 172 is revised to read as follows:

Authority: 43 U.S.C. 1333(d); 46 U.S.C. 3306 and 5115; 49 CFR 1.46 (b) and (z).

54. By revising § 172.130(a) to read as follows:

§ 172.130 Calculations.

(a) Except as provided in § 153.7 of this chapter, each tankship must be shown by design calculations to meet the survival conditions in § 172.150 in each condition of loading and operation assuming the damage specified in § 172.133 for the hull type prescribed in Part 153 of this chapter.

55. By revising the introductory text of paragraph (b) and paragraph (d) of § 172.133 to read as follows:

§ 172.133 Character of damage.

(b) Except as provided in § 153.7 of this chapter, if a type II hull is required, design calculations must show that a vessel—

(d) A vessel described in paragraph (b)(2) or (c)(1) of this section need not be designed to survive damage to a main transverse watertight bulkhead bounding an aft machinery space. Except as provided in § 153.7 of this chapter, the machinery space must be calculated as a single floodable compartment.

Dated: March 4, 1987.

J.W. Kime,
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