

2007 Revisions to MARPOL Annex II and the IBC Code
Bulk Liquid Chemical Reclassification
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Q: When do the changes go into effect?

A: January 1, 2007.

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Q: What vessels are impacted?

A: MARPOL applies to all oceangoing vessels which carry NLS cargoes. NVIC 03-06 contains a provision for existing vessels to elect not to implement the revised standards by surrendering international certificates and having the COI endorsed to limit the vessel to domestic routes.

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Q: What cargoes are impacted?

A: Every bulk liquid cargo that is not regulated as oil under Annex I has been reclassified and assigned a new pollution category. As a result, many cargoes that were once authorized for carriage on product carriers must now be carried on chemical tankers. Some cargoes have upgraded ship type or additional carriage requirements. The minimum requirements for carriage of NLS cargoes can be found in Chapter 17 of the revised IBC Code and 46 CFR Part 153, Table 1. NOTE- If US and international requirements conflict, the more stringent requirement shall apply.

- Cargoes which may be carried on product tankers after 01 Jan
- Cargoes previously authorized for carriage on oceangoing Subchapter D vessels which must be carried on chemical carriers after January 1, 2007.

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Q: What are the options for existing vessels?

A: (1) Make no changes to the vessel, surrender international certificates and have COI endorsed for domestic voyages only.
(2) Make no changes to the vessel and receive an updated CAA in accordance with the revised carriage requirements.

NOTE: This will likely result in a loss of cargoes

(3) Modify the vessel to meet the revised standards for the vessel's desired cargo authority. Submit plans and calculations to MSC for review and approval.

(4) Obtain an exemption from Commandant (CG-3PSO-3), in accordance with Regulation 4.1 of MARPOL Annex II. See NVIC 03-06 for details regarding exemptions.

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Q: Can a new vessel opt to forgo international certificates and operate under the existing US regulations?

A: No. All new oceangoing tank vessels are subject the revised MARPOL Annex II and IBC Code.

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Q: What exemptions are available?

A: Regulation 4.1 of the revised Annex II allows exemptions for existing vessels that are negatively impacted by the changes. All exemption requests should be addressed to Commandant (CG-3PSO-3). See [NVIC 03-06](#) for more information about exemption requests.

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Q: What is a new vessel?

A: A new vessel is not an existing vessel.

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Q: What is an existing vessel?

A: Ships for which the keel was laid or at a similar stage of construction, or major conversion started before January 1, 2007. Similar stage of construction includes where construction identifiable with the ship begins or assembly has commenced comprising at least 50 tons or 1% of the estimated mass of all structural material, whichever is less.

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Q: A vessel built after January 1, 2007 is a sister to one built before January 1, 2007. Will they have the same cargo list?

A: Not necessarily. If both vessels carry international certificates, they will have the same cargo authority. However, an existing vessel may surrender international routes and operate in accordance with US regulations only. A new vessel must comply with the revised Annex II and IBC Code (Chapter 17) requirements.

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Q: I do not wish to make any changes to my vessel. What do I have to submit to MSC to get a new CAA?

A: For any submission to MSC, include the vessel name, official number, shipyard and hull number, the vessel's next call to a foreign port, and the local OCMI that will be endorsing the COI.

- If the vessel is currently certificated under **Subchapter O**, submit a completed Tank Group Characteristics Loading Form for Tank Vessels Subject to the 2007 MARPOL Annex II Revisions, available on the MSC Homeport website.
- If the vessel is currently certificated under 46 CFR **Subchapter D** and no NLS cargoes will be carried, no CAA is required. If the vessel will carry any of the NLS cargoes authorized on product tankers, submit a written request (mail, fax or email) for the carriage of these cargoes.
- If the vessel will continue to carry NLS cargoes, submit a Procedures & Arrangements (P&A) Manual, prepared in accordance with Appendix 4 of Annex II.
- If the vessel has a **Vapor Control System (VCS)** installed, reference the serial number and date of the MSC letter approving the VCS.

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Q: My vessel is currently certificated under 46 CFR Subchapter D and authorized to carry NLS cargoes under 33 CFR Part 151. What do I have to submit to MSC to retain the same cargo authority?

A: If the cargoes desired are listed in Chapter 17 of the revised IBC Code, the vessel must be reviewed and certified as a chemical carrier. Submit all plans and calculations demonstrating compliance with design and construction requirements of 46 CFR Part 153 and the IBC Code. Examples include:

- General Arrangements
- Stripping system plans
- Stability calculations for the desired ship type. If the stability review was performed under the provisions of NVIC 3-97, provide a copy of the ABS Stability Letter.
- Tank Group Characteristics Loading Form

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Q: What do I have to submit to MSC to upgrade my vessel's Ship Type?

A: You must submit plans and calculations that demonstrate compliance with the requirements for the desired ship type.

The extent of this plan review may vary depending on the specific situation. Examples include:

- Stability calculations for the desired ship type. If the stability review was performed under the provisions of NVIC 3-97, provide a copy of the ABS Stability Letter.
- General Arrangements
- Tank Capacity Plans
- Tank Group Characteristics Loading Form

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Q: What certificates does my vessel need?

A: All US flag tank vessels require a **Certificate of Inspection (COI)**. If NLS cargoes are carried, the COI must be endorsed with the name of each cargo. This is generally accomplished with a Cargo Authority Attachment (CAA), generated by the Marine Safety Center.

A vessel subject to the provisions of the revised Annex II must have a **Certificate of Fitness (COF) or NLS Certificate**, issued by the OCMI or Authorized Class Society. The COF is issued for any vessel carrying cargoes listed in Chapter 17 of the revised IBC Code. A vessel which only carries only Category Z NLS cargoes listed in Chapter 18 of the revised IBC Code requires an NLS Certificate. The appropriate MARPOL certificate should reflect and exemptions granted.

An oceangoing tank vessel that does not comply with the revised standard must surrender all international certificates, and have the COI endorsed to limit the vessel to domestic voyages.

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Q: What is a Procedures & Arrangements (P&A) Manual?

A: Every ship certified to carry substances of Category X, Y or Z shall have on board a P&A Manual, prepared in accordance with the standard format found in Appendix 4 of MARPOL Annex II, and approved by the Coast Guard or Authorized Class Society. The main purpose of the Manual is to identify for the ship's officers the physical arrangements and all the operational procedures with respect to cargo handling, tank cleaning, slops handling and cargo tank ballasting and deballasting which must be followed in order to comply with the requirements of MARPOL Annex II.

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Q: If a vessel does not discharge to sea, do I need a P&A Manual?

A: Yes. In accordance with Regulation 4.4 of the revised MARPOL Annex II, a vessel which does not wash or ballast cargo tanks may be exempted from the pumping, piping and stripping requirements of Regulation 12. An approved P&A Manual is a requirement for this exemption.

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Q: My vessel currently carries NLS cargoes with a Procedures & Arrangements (P&A) Manual waiver. Is the waiver still valid?

A: No. Vessel owners must submit a P&A Manual prepared in accordance with Appendix 4 of the revised MARPOL Annex II.

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Q: Where can I find more information?

A: [NVIC 03-6](#) "Guidance on Implementation of Revisions to MARPOL Annex II and the IBC Code"
IMO Website (www.imo.org)

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Bulk Liquid Cargoes that may be carried on Product Carriers without a MARPOL Annex II Certificate

IMO Cargo Name	Chem Code	PC
Apple juice	APJ	OS
Clay slurry	CLY	OS
Coal slurry	COG	OS
Glucose solution	GLU	OS
Kaolin slurry	KLS	OS
Molasses	MOL	OS
Non-noxious liquid, (12) n.o.s. (trade name, contains) Cat. OS	NOL	OS
Water	WTR	OS

Cargoes that may be carried on Product Carriers after January 01, 2007 (NLS Certificate is Required)

IMO Cargo Name	Chem Code	PC
Alcoholic beverages, n.o.s.	ABV	Z
Acetone	ACT	Z
n-Butyl alcohol	BAN	Z
sec-Butyl alcohol	BAS	Z
Diethylene glycol	DEG	Z
Ethyl alcohol	EAL	Z
Ethylene carbonate	ECR	Z
Tetraethyl silicate monomer/oligomer (20% in ethanol)	ESC	Z
Glycerine	GCR	Z
Hexamethylenetetramine solutions	HTS	Z
Hexylene glycol	HXG	Z
Isopropyl alcohol	IPA	Z
N-Methylglucamine solution (70% or less)	MGC	Z
Magnesium hydroxide slurry	MHS	Z
Methyl propyl ketone	MKE	Z
Noxious liquid, (11) n.o.s. (trade name, contains) Cat. Z	NOK	Z
Potassium formate solutions	PFR	Z
Propylene carbonate	PLC	Z
Polyaluminium chloride solution	PLS	Z
Propylene glycol	PPG	Z
Sodium acetate solutions	SAN	Z
Sodium sulphate solutions	SST	Z
Triethylene glycol	TEG	Z

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Cargoes that **may not** be carried on Product Carriers (Subchapter D) after January 01 2007

IMO Cargo Name	CHEM CODE	Old PC	New PC
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)	AVA	C*	X
Cycloheptane	CYE	C*	X
Heptane (all isomers)	HMX	C*	X
Nonane (all isomers)	NAX	C*	X
Octane (all isomers)	OAX	C*	X
Cyclohexane	CHX	C*	Y
p-Cymene	CMP	C*	Y
Cyclopentane	CYP	C*	Y
Ethylcyclohexane	ECY	C*	Y
Hexene (all isomers)	HEX	C*	Y
Heptene (all isomers)	HPX	C*	Y
Hexane (all isomers)	HXS	C*	Y
Isopropylcyclohexane	IPX	C*	Y
Methylcyclohexane	MCY	C*	Y
Olefin mixtures (C5-C7)	OFX	C*	Y
Pentene (all isomers)	PTX	C*	Y
Pentane (all isomers)	PTY	C*	Y
1-Phenyl-1-xylyl ethane	PXE	C*	Y
Tetrahydronaphthalene	THN	C*	Y
Toluene	TOL	C*	Y
Xylenes	XLX	C*	Y
Alkenyl (C1 1+) amide	AKM	D	X
Myrcene	MRE	D	X
Alkyl ester copolymer (C4-C20)	AES	D	Y
Acrylonitrile-Styrene copolymer dispersion in polyether polyol	ALE	D	Y
Cyclohexanol	CHN	D	Y
Decahydronaphthalene	DHN	D	Y
Ethylenediaminetetraacetic acid, tetrasodium salt solution	EDS	D	Y
Ethylene glycol	EGL	D	Y
N-(Hydroxyethyl) ethylenediaminetriacetic acid, trisodium salt solution	HET	D	Y
Hexanol	HXN	D	Y
Methyl alcohol	MAL	D	Y
Castor oil	OCA	D	Y
Coconut oil	OCC	D	Y
Coconut oil fatty acid methyl ester	OCM	D	Y
Corn Oil	OCO	D	Y
Cotton seed oil	OCS	D	Y
Fish oil	OFS	D	Y
Groundnut oil	OGN	D	Y
Linseed oil	OLS	D	Y
Olive oil	OOL	D	Y
Palm oil	OPM	D	Y
Palm kernel oil	OPO	D	Y
Rice bran oil	ORB	D	Y
Rapeseed oil	ORP	D	Y
Soyabean oil	OSB	D	Y
Safflower oil	OSF	D	Y

Cargoes that **may not** be carried on Product Carriers (Subchapter D) after January 01 2007

IMO Cargo Name	CHEM CODE	Old PC	New PC
Sunflower seed oil	OSN	D	Y
Tung oil	OTG	D	Y
Palm oil fatty acid methyl ester	PNF	D	Y
Tallow fatty acid	TFD	D	Y
Tallow	TLO	D	Y
Alkenyl (C16-C20) succinic anhydride	AAH	D	Z
n-Amyl alcohol	AAI	D	Z
Alkyldithiothiadiazole (C6-C24)	ADT	D	Z
Iso- and cyclo-alkanes (C10-C11)	AKI	D	Z
Alkyl (C8-C40) phenol sulphide	AKS	D	Z
Ammonium sulphate solution	AME	D	Z
Ammonium hydrogen phosphate solution	AMI	D	Z
Isobutyl formate	BFI	D	Z
Butylene glycol	BUG	D	Z
epsilon-Caprolactam (molten or aqueous solutions)	CLS	D	Z
Calcium hydroxide slurry	COH	D	Z
Ethyl acetate	ETA	D	Z
Hexamethylenediamine adipate (50% in water)	HAM	D	Z
n-Heptanoic acid	HEP	D	Z
Methyl tert-butyl ether	MBE	D	Z
Methyl isobutyl ketone	MIK	D	Z
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	PAG	D	Z
Sodium benzoate	SBN	D	Z
Sodium carbonate solution	SCE	D	Z
Sulphonated polyacrylate solution	SPA	D	Z
Urea/Ammonium nitrate solution (containing less than 1% free ammonia)	UAT	D	Z
Diethyl phthalate	DOP	III	X
Alkyl sulphonic acid ester of phenol	AKH	III	Y
Alcohols (C13+)	ALY	III	Y
Benzenetricarboxylic acid, trioctyl ester	BCE	III	Y
Dihexyl phthalate	DHL	III	Y
Diheptyl phthalate	DHP	III	Y
Diisooctyl phthalate	DIO	III	Y
Ditridecyl adipate	DTY	III	Y
Dodecyl Xylene	DXY	III	Y
Fatty acid (saturated C13+)	FAD	III	Y
1-Hexadecylnaphthalene / 1,4-bis(hexadecyl)naphthalene mixture	HNH	III	Y
Long-chain alkylphenate/Phenol sulphide mixture	LPS	III	Y
Lard	LRD	III	Y
Octyl decyl adipate	ODA	III	Y
Olefins (C13+, all isomers)	OFZ	III	Y
n-propyl alcohol	PAL	III	Y
Poly(4+)isobutylene	PIL	III	Y
Polybutene	PLB	III	Y
Poly(5+)propylene	PLP	III	Y
Polyolefin (molecular weight 300+)	PMW	III	Y

Cargoes that **may not** be carried on Product Carriers (Subchapter D) after January 01 2007

IMO Cargo Name	CHEM CODE	Old PC	New PC
Poly(20)oxyethylene sorbitan monooleate	PSM	III	Y
Polysiloxane	PSX	III	Y
Petrolatum	PTL	III	Y
Paraffin wax	WPF	III	Y
Zinc alkenyl carboxamide	ZAA	III	Y
tert-Amyl alcohol	AAL	III	Z
Alkyl(C9+)benzenes	AKB	III	Z
Iso- and cyclo-alkanes (C12+)	AKJ	III	Z
n-Alkanes (C10+)	ALJ	III	Z
Alkyl (C9-C15) phenyl propoxylate	AXL	III	Z
Isobutyl alcohol	BAY	III	Z
Dodecylbenzene	DDB	III	Z
Diethylene glycol diethyl ether	DGS	III	Z
Dipropylene glycol	DPG	III	Z
Glyceryl triacetate	GCT	III	Z
Hexamethylene glycol	HMG	III	Z
Isopropyl acetate	IAC	III	Z
Latex: Carboxylated styrene-Butadiene copolymer; Styrene-Butadiene rubber	LCC	III	Z
2-Methyl-1,3-propanediol	MDL	III	Z
Methyl ethyl ketone	MEK	III	Z
Methyl acetate	MTT	III	Z
3 -Methyl-3 -methoxybutanol	MXB	III	Z
Polyisobutenyl anhydride adduct	PBA	III	Z
Polyethylene glycol dimethyl ether	PEE	III	Z
Polyethylene glycol	PEG	III	Z
Tridecyl acetate	TAE	III	Z
Tripropylene glycol	TGC	III	Z
Triisopropanolamine	TIP	III	Z
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	TMQ	III	Z
Tetraethylene glycol	TTG	III	Z

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