



MARITIME AUTHORITY OF JAMAICA

**MAXIMUM SULPHUR CONTENT OF
FUEL OIL IN ECA**

Circular No.	14-07-02	P
Revision	00	
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TO:

- (I) ALL OWNERS, MASTERS OF JAMAICAN REGISTERED VESSELS**
- (II) ALL MANAGERS AND OPERATORS OF JAMAICAN REGISTERED VESSELS**
- (III) RECOGNIZED ORGANIZATIONS**

SUBJECT: MAXIMUM SULPHUR CONTENT OF FUEL OIL IN ECA

References: MARPOL Annex VI.

Summary:

The requirements of Maximum Sulphur content of fuel Oil to be used in Emission Control Areas (ECA) will be 0.1% m/m (1,000 ppm) from 1 January 2015.

Requirements:

The fuel oil sulphur limits are subject to series of step changes over the years, regulations 14.1 and 14.4 of MARPOL Annex VI as follows:

Outside an ECA established to limit SO _x and PM emissions	Inside an ECA established to limit Sox and PM emissions
4.50% m/m prior to 1 January 2012	1.5% m/m prior to 01 July 2010
3.50% m/m on or after 1 January 2012	1.0% m/m on or after 1 July 2010
0.5% m/m on or after 1 January 2020 **	0.1% m/m on or after 1 January 2015

** depending on the outcome of a review, to be concluded in 2018, as to the availability of the required fuel oil, this date could be deferred to 1 January 2025.

Emission Control Areas (ECA):

The established Emission Control Areas(ECA) are:

1. Baltic Sea area defined in annex I of MARPOL (Sox only) effective from 19 May 2006
2. North Sea area as defined in annex I of MARPOL (Sox) effective from 22 November 2007
3. North American area as defined in appendix VII of annex VI of MARPOL and effective from 1 August 2012
4. United States Caribbean Sea area as defined in appendix VII of annex VI of MARPOL (Sox, NOx and PM) effective from 1 January 2014

Vessels trading to above areas are required to take note of this new requirement regarding maximum sulphur content becoming 0.1% m/m (1,000 ppm) in ECA effective 1 January 2015, and ensure compliance.

Accurate records must be maintained on board in order to demonstrate compliance with the new requirements at any time during port state control inspections or by other regulatory monitoring agencies.

Following documents may be subjected to scrutiny.:

- Bunker delivery notes (BDN)
- Representative fuel oil samples
- Written fuel oil change over procedures
- Crew training in fuel oil change over procedures
- Fuel change over log entries Engine/Bridge
- IAPP certificate and technical files for NOx emission compliance.

Other methods of verification of compliance may also be enforced and could include taking fuel oil samples for analysis from fuel oil tanks and sampling of vessel exhaust plumes.

Prior to entry into ECA, it is required to have completely changed over to ECA compliant fuel oil. Similarly, change over from ECA compliant fuel oil is not to commence until exit from ECA. At each change over it is required that the quantities of ECA compliant fuel remaining on board (ROB) is recorded together with the date, time and position of the ship when completing the procedure of the change over.

These records are to be made at least in the Engine / Deck log books. Additional entries may be made in the annex I oil record book.

Attached to this circular is the ECA job aid issued by United States Coast Guard which provides reference to MARPOL annex VI compliance checklist which may be used as a general reference to evaluate compliance with required procedure.

Owners, managers and operators are requested to contact their respective class societies or engine manufacturers for any clarifications on the technical, maintenance and operation of the different fuel oil systems. For any other clarification on the applicability of the regulation this Administration may be contacted.

**SURVEYOR GENERAL
DIRECTORATE OF SAFETY, ENVIRONMENT AND CERTIFICATION**

July 25, 2014

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UNITED STATES COAST GUARD

ECA JOB AID

Domestic & Foreign Vessels

Office of Commercial Vessel Compliance (CG-CVC)

07/24/2012

Section 1: Information

Section 2: Annex VI Check-off (all inclusive): A complete check list encompassing all of Annex VI is provided for use by the MI/PSCO until the CG-840 Job Aids are updated. This section of the Job Aid is intended to serve as a memory jogger during inspection/examinations and to assist the MI/PSCO when MARPOL Annex VI deficiencies are identified, especially regarding Regulation 14 & 18. Realizing the difference between a domestic vessel inspections and a foreign vessel exam, this list is not required to be completed in its entirety and the referenced items may be spot checked unless a more thorough review is required: 1) based on the scope of the inspection (domestic); or 2) an expanded exam is required based on the PSCOs impressions and/or observations.

Section 3: ECA Deficiency Matrix – This Matrix is only intended to provide a few deficiency examples for non-compliance with the North American & U.S. Caribbean Sea ECA (this list is not all inclusive).

Section 4: Compliance Flow Chart

ECA JOB AID
Section 1
Information
Aug 2012

MARPOL Annex VI (08 Amendments), Regulation 14 (Revised) and Regulation 18
[U.S. Domestic Regulations for same - 40 CFR § 1043]

This Job Aid is intended to be used by the Coast Guard Marine Inspectors (MI) and Port State Control Officers (PSCO) to assist in identifying and documenting deficiencies discovered during inspection/examinations of U.S. and foreign flagged ships that are in violation of MARPOL Annex VI, Regulation 14 for compliance with the North American & U.S. Caribbean Sea¹ Emission Control Area (ECA). Compliance with Annex VI Reg. 14 pertaining to the ECA can be achieved by several means: Utilization of Low Sulfur Fuel Oil (Reg. 14); by Equivalence (Reg. 4); or by receiving Exceptions/Exemptions (Reg. 3). In order to determine the approved method of compliance, MI/PSCO's must review the Supplement to the IAPP sections 2.3.1 (fuel oil with low sulfur or equivalent arrangements approved as listed in 2.6). For vessels that are issued Exceptions/Exemptions under Annex VI Regulation 3, separate documentation will be issued by an Administration permitting the exception/exemption and will not be captured on the Supplement to the IAPP Certificate (see section 5.b & 5.c of CG-CVC Policy Letter 12-02).

A vessel which is not currently documented by a special note in MISLE (as referenced in CVC Policy Letter 12-02 section 5.b & 5.c) and is utilizing an Equivalence or Exemption/Exception approved by an Administration; are not considered in violation of Annex VI. MI/PSCO's identifying a vessel utilizing one of these methods that does not currently have a special note in MISLE, are requested to: make a copy of the relevant document (Supplement to the IAPP Certificate / Administration's approval document) for scanning and attaching to the MISLE activity's document tab. In addition, MI/PSCO's are requested to notify CG-CVC-2 via e-mail (cgCVC@uscg.mil) of the equivalence/exemption/exception. The e-mail subject line should include the following text: ECA – VESSEL UTILIZING REG 3 OR 4 FOR COMPLIANCE W/REG 14. Include in the e-mail a unit POC and the MISLE Activity number. This will allow CG-CVC to make an appropriate special note entry in MISLE.

For vessels that utilize a scrubber in lieu of Low Sulfur Fuel Oil (Equivalence (Reg. 4): MIs/PSCOs should be aware that guidelines for exhaust cleaning systems are available, see Resolution MEPC.184(59), Adopted on 17 July 2009: 2009 GUIDELINES FOR EXHAUST GAS CLEANING SYSTEMS – The purpose of these Guidelines is to specify the requirements for the testing, survey certification and verification of exhaust gas cleaning (EGC) systems under regulation 4 to ensure that they provide effective equivalence to requirements of regulations 14.1 and 14.4 of Annex VI of MARPOL 73/78.

The Coast Guard will continue to utilize CG-543 Policy Letter 09-01 when performing Domestic inspections and Port State Control examinations which outlines the minimum items that an MI and PSCO's should review or examine. CG-CVC Policy Letter 12-02 outlines the compliance and enforcement procedures specific to MARPOL Annex VI, Regulation 14 & 18 for the ECA(s). Additional PSC guidance is provided in the *2009 Guidelines for Port State Control under the Revised MARPOL Annex VI* (MEPC.181(59)). The depth and scope of the examination must be determined by the MIs and PSCOs based on the condition of the vessel, compliance with the ECA through the use of low sulfur fuel oil (or other methods of compliance), the operation of its systems utilized for compliance, and the competency of the vessel's crew.

U.S. Flag vessels operating domestically: In 40 C.F.R. 1043.60(d), U.S. ships that “operate only domestically” (i.e., do not enter waters subject to the jurisdiction or control of any foreign country, except for Canadian portions of the Great Lakes) and use only fuels meeting the specification of 40 C.F.R. 80 for distillate fuel, are deemed to be in full compliance with the fuel use requirements and prohibitions of Regulation 14 and 18 of Annex VI (See §§1043.60 and 1043.70 for provisions related to fuel use by such ships). In 40 C.F.R. 1043.60(f), historic steamships may be exempted by EPA from the fuel requirements of 40 C.F.R. Part 1043. In 40 C.F.R. 1043.95, certain ships propelled by steam turbine engines or reciprocating steam engines and that are operating on the Great Lakes are not subject to the requirements of

¹ The U.S. Caribbean Sea will not come into force until 1 January 2014.

40 C.F.R. Part 1043. Certain other ships operating on the Great Lakes may also be exempted by EPA from the requirements of 40 C.F.R. Part 1043. Refer to 40 C.F.R. 1043.95 for further details.

Safety Management System: A well-structured and documented Safety Management System (SMS) is an appropriate management tool enabling a Company and ship operators in meeting the requirements for compliance with the ECA. Logical processes for inclusion in a shipboard SMS may include shipboard and/or corporate quality standards, procedures, and responsibilities for personnel regarding Annex VI provisions discussed in CG-543 09-01 Policy Letter, such as [ISM Code 1.4, 5, 7, 9, 10]:

- Tracking of and preparation for Annex VI exams and IAPP Surveys.
- Management and/or tracking of onboard Ozone Depleting Substances
- Compliance with fuel oil quality (SO_x) Requirements (VI/Reg 14) worldwide/ECA
- Ensuring adequate training for crew regarding procedures/documentation required to comply with the ECA (Reg. 14.6)
- Notification procedures when fuel oil compliant with Reg 14 is not available for purchase (VI/Reg 18.2.4)
- Notification procedures when an accident occurs to a ship or a defect is discovered substantially affecting the efficiency or completeness of its equipment covered by Annex VI (VI/Reg 5.5)
- Incineration Requirements (including training and prohibitions)

***Deficiencies discovered regarding the SMS as they pertain to the ECA:** MIs/PSCOs should document these related deficiencies and assigned a Code 50 (30 days) for rectification. The MI/PSCO should include at the following text at the end of the deficiency description: “An internal audit by the company is requested”. CG-CVC-1 & 2 will continue to monitor and evaluate SMS discrepancies and will amend this section as appropriate.

ECA Deficiencies. MIs/PSCOs should take the following action regarding MARPOL Annex VI, Regulation 14 (SO_x) and Regulation 18 (Fuel oil availability and quality) deficiencies:

- i. Inform the vessel’s master/person-in-charge that any deficiency issued by the Coast Guard regarding the ECA will be forwarded to the Environmental Protection Agency (EPA) for evaluation and determination of an ECA violation. The EPA may take enforcement action to include administrative penalties, and judicial action.
- ii. Have the master make copies of documents (bunker delivery note(s)/voyage plan²/log book page(s)/other relevant evidence presented), stamp (vessel seal if available), and sign for including in the MISLE activity.

Fuel Oil Non-Availability:

The expectation is that vessels arriving without compliant fuel oil (non-availability) will be purchasing compliant fuel oil at the first U.S. port of call where compliant fuel oil is available. The EPA’s Interim Guidance on the Non-Availability of Complaint F/O addresses this issue and is available at: <http://www.epa.gov/otaq/oceanvessels.htm> (Under Guidance and Publications). Page 8 of the EPA’s guidance states; “Once you have entered the North American ECA, in order to avoid further violations of Annex VI fuel oil requirements...” Vessels will not be compelled to purchase compliant fuel oil, however the responsible party is subject to penalties under APPS [33 U.S.C. 1908] for each violation. Each day of a continuing violation shall constitute a separate violation.

² SOLAS Ch. V, Reg. 34.2.4 – voyage plan shall identify a route which: takes into account the marine environmental protection measures that apply, and avoids, as far as possible, actions and activities which could cause damage to the environment.

Deficiency codes associated with the PSC Form B:

The following codes shall be used for documenting Annex VI deficiencies (CG-CVC-2 is currently working on updating the Form B deficiency codes):

PSC Form B - Deficiency Codes: MARPOL Annex VI

0160 – IAPP Certificate

0161 – EIAPP Certificate

0162 – Technical File

0163 – Bunker Delivery Note

2410 - Logbook

2420 – Change-over Procedures

2430 - >1% m/m Sulfur Content

2440 - >3.5% m/m Sulfur Content

2450 – Equivalent Equipment

2460 – Exemption Permit

2470 – Notification

2490 – Other

ECA Job Aid

Section 2

MARPOL ANNEX VI COMPLIANCE CHECK SHEET

(This check sheet is not required to be completed in its entirety)

July 2012

MARPOL Annex VI – General (All vessels)

☐ REVIEW INTERNATIONAL AIR POLLUTION PREVENTION (IAPP) CERTIFICATE

- ONBOARD (VALID)
- SUPPLEMENT INCLUDES (SPOT CHECK):
 - DESCRIPTION OF OZONE DEPLETING SUBSTANCES CONTAINED IN SYSTEMS AND EQUIPMENT
 - DESCRIPTION OF DIESEL ENGINES > 130 KW (175 HP) AND INSTALLED OR CONVERTED AFTER 1/1/2000 THAT COMPLY WITH NO_x EMISSION STANDARDS OR ARE FITTED WITH EXHAUST GAS CLEANING SYSTEM.
 - DESCRIPTION OF METHOD TO OPERATE IN AN EMISSION CONTROL AREAS (ECA) (SECTION 2.3/2.6)
 - VESSELS OPERATING UNDER AN EXCEPTION/EXEMPTION (REG. 3): ISSUED SEPARATE DOCUMENTATION BY THE ADMINISTRATION - PERMIT
 - DESCRIPTION OF INCINERATOR (COMPLIES WITH MEPC.76(40) AS AMENDED) Y / N
- VERIFY SHIP EQUIPMENT CORRESPONDS SUBSTANTIALLY WITH PARTICULARS LISTED ON IAPP (SPOT CHECK)

☐ REVIEW ENGINE INT'L AIR POLLUTION PREVENTION (EIAPP) CERTIFICATE

- ONE ONBOARD FOR EACH DIESEL ENGINE > 130 KW (175 HP) AND INSTALLED OR CONVERTED AFTER 1/1/2000
- SPOT CHECK SUPPLEMENT -
 - DATA ON DIESEL ENGINE COMPLIANCE

☐ REVIEW EXHAUST CLEANING SYSTEMS DOCUMENTATION (IF FITTED)

Resolution MEPC.184(59), Adopted on 17 July 2009: 2009 GUIDELINES FOR EXHAUST GAS CLEANING SYSTEMS

- ONBOARD FOR EACH ENGINE

☐ REVIEW TYPE APPROVAL CERTIFICATE FOR INCINERATOR

- REQUIRED FOR INCINERATORS INSTALLED ON OR AFTER 1 JANUARY 2000
- COMPLIANT WITH MEPC.76(40) AND MEPC.93(45)

☐ EXAMINE INCINERATOR (IF PRESENT)

- SHIPBOARD GARBAGE PROPERLY DISPOSED
- EVIDENCE OF USE (CLINKERS)
- SAFETY OF BURNER ASSEMBLY
- ELECTRICAL CONTROLS
- MARPOL V PLACARD POSTED
- LITERS/HOUR
- VERIFY APPROVED BY USCG OR ADMINISTRATION
- NOTE THE USE AND QUANTITIES OF SLUDGE INCINERATION IN THE ORB
- QUESTION CREW ON HOW MUCH WASTE OIL/SLUDGE THE INCINERATOR BURNS. IF ALL WASTE OIL IS BURNED, VERIFY/ COMPARE THE CAPACITY OF INCINERATOR AGAINST SHIP'S DAILY PRODUCTION OF SLUDGE
- SPOT CHECK CONDITION & WITNESS OPERATION (IF OPERATING).

MARPOL Annex VI – ECA

☐ REVIEW BUNKER DELIVERY NOTES (SPOT CHECK)

- PROVIDED FOR EACH FUEL DELIVERY
- MAINTAINED ONBOARD FOR AT LEAST THREE YEARS
- PROVIDE INFORMATION ON:
 - NAME AND IMO NUMBER OF SHIP
 - DATE OF COMMENCEMENT OF DELIVERY
 - NAME, ADDRESS, AND TELEPHONE NUMBER OF MARINE FUEL SUPPLIER
 - PRODUCT NAME(S)
 - QUANTITY (METRIC TONS)
 - DENSITY
 - SULFUR CONTENT (NOT TO EXCEED 3.5 M/M AND NOT TO EXCEED 1.0 M/M FOR ECA – NOTE EXHAUST CLEANING SYSTEMS MAY SUBSTITUTE FOR LOWER SULFUR CONTENT FUEL IN ECAs.
 - ECA - SULFUR CONTENT 1% M/M: Y / N (IF NO, OBTAIN A COPY OF THE BDN /HAVE MASTER CERTIFY THAT EACH COPY IS A TRUE COPY OF THE BDN – SEE REG. 18.7.1)

☐ VERIFY FUEL SAMPLES ONBOARD (SPOT CHECK)

- PROVIDED FOR EACH FUEL DELIVERY
- ASSOCIATED WITH A BUNKER DELIVERY NOTE
- KEPT ON BOARD FOR AT LEAST 12 MONTHS

☐ VESSELS UTILIZING LOW SULFUR F/O FOR COMPLIANCE WITH THE ECA (REG. 14)

- REVIEW LOGBOOK (AS PRESCRIBED BY THE ADMINISTRATION) FOR ENTRIES
 - VOLUME OF LOW SULFUR FUEL OIL IN EACH TANK RECORDED
 - DATE, TIME AND POSITION OF SHIP WHEN FUEL OIL CHANGEOVER OPERATION WAS COMPLETED
 - DID THE CHANGEOVER OCCUR PRIOR TO ENTRY (OR AFTER EXIT FROM) THE ECA
- SPOT CHECK WRITTEN PROCEDURES
 - DOES IT DESCRIBE HOW THE FUEL OIL CHANGE-OVER IS TO BE DONE
 - DOES IT DESCRIBE HOW MUCH TIME IS REQUIRED OR HOW LONG TO OPERATE THE EQUIPMENT TO ENSURE THE SYSTEM IS FULLY FLUSHED OF FUEL OILS EXCEEDING APPLICABLE SULFUR LIMITS
- DO THE CREWMEMBERS RESPONSIBLE FOR CONDUCTING THE CHANGE-OVER UNDERSTAND THE PROCESS AS WRITTEN

☐ VESSELS UTILIZING EQUIVILANCE (REG. 4) FOR COMPLIANCE WITH THE ECA (REG.

14 - Resolution MEPC.184(59), Adopted on 17 July 2009: 2009 GUIDELINES FOR EXHAUST GAS CLEANING SYSTEMS)

- APPROVED METHOD (Supplement to the IAPP Certificate section 2.6) \
 - IF USING EQUIPMENT - OPERATIONAL Y / N
 - TYPE (e.g., scrubber): _____
 - COMPLIANCE METHOD APPROVED _____
 - OTHER PROCEDURES APPROVED FOR COMPLIANCE: _____
 - ALTERNATIVE FUEL OILS – Y / N
 - TYPE OF ALTERNATIVE FUEL OIL _____
 - IS THIS ACCOMPLISHED BY BLENDING ONBOARD Y / N
 - IS THERE EQUIPMENT INSTALLED TO PERFORM THE BLENDING
 - ARE THERE PROCEDURES FOR BLENDING
 - IS TESTING REQUIRED (SULFUR) BY THE CREW TO ENSURE COMPLIANCE Y / N

☐ VESSELS ISSUED AN EXEMPTION/EXCEPTION (REG. 3) FROM COMPLYING WITH REG. 14 (ECA): TO CONDUCT TRIALS FOR SHIP EMISSION REDUCTION AND CONTROL TECHNOLOGY RESEARCH

- HAS FLAG ADMINISTRATION ISSUED DOCUMENTATION APPROVING THE EXEMPTION/EXCEPTION Y / N
- ISSUED DATE: _____ EXPIRATION DATE: _____
- OBTAIN A COPY OF THE ISSUED DOCUMENT (See Section (1) of the ECA Job Aid for further details)

MARPOL Annex VI – DOMESTIC / EXPANDED EXAM:

Items reviewed during the scope of a Domestic Inspection or when conducting a PSC Expanded Exam

☐ REVIEW TECHNICAL FILE FOR EACH DIESEL ENGINE

- ONBOARD FOR EACH ENGINE
- COMPLIES WITH PARA 2.3.6 OF NO_x TECHNICAL CODE (SPOT CHECK)

☐ REVIEW RECORD BOOK OF DIESEL ENGINE PARAMETERS (SPOT CHECK)

- ONBOARD FOR EACH ENGINE COMPLIES WITH PARA 6.2.3.3 OF NO_x TECHNICAL CODE

☐ REVIEW REPORTS OF NON-COMPLIANCE FOR MARPOL ANNEX VI FUEL DELIVERY

- PROVIDED FOR EACH FUEL DELIVERY TO ADMINISTRATION IF FUEL DOES NOT COMPLY WITH ANNEX VI REQUIREMENTS
- REVIEW RECORDS REGARDING SUCH REPORTS (IF ON HAND)

☐ REVIEW EVIDENCE/RECORDS:

- IF DEFICIENCIES PERTAINING TO MARPOL ANNEX VI ECA ARE IDENTIFIED
 - OBTAIN COPIES OF THE RELEVANT DOCUMENTS (IAPP, BUNKER DELIVERY NOTES, VOYAGE PLAN, CHANGE-OVER PROCEDURES, LOGS, ETC...)
 - REQUEST THE MASTER TO STAMPED/SIGN AS APPROPRIATE (Inform the Master they are only certifying that each copy is a true copy)
- OTHER ANNEX VI DEFICIENCIES IDENTIFIED
 - OBTAIN COPIES OF RELEVANT DOCUMENTS/EVIDENCE PRESENTED BY THE MASTER/CREW
 - REQUEST THE MASTER TO STAMPED/SIGN AS APPROPRIATE (Inform the Master they are only certifying that each copy is a true copy)

DOCUMENTATION:

☐ ECA RELATED DEFICIENCIES IDENTIFIED:

- MASTER INFORMED THAT DEFICIENCIES IDENTIFIED WILL BE REFERRED TO THE EPA FOR POSSIBLE ENFORCEMENT ACTION
- MISLE ACTIVITY CASE WORK COMPLETED IN ACCORDANCE WITH POLICY LTR CG-CVC 12-02
 - DEFICIENCY DOCUMENTED I.A.W. TIME FRAME
 - SCANNED INTO MISLE UNDER THE ACTIVITY'S DOCUMENT TAB
 - (1) DOCUMENTS OBTAINED FROM THE INSPECTION/EXAMINATION ARE LOADED AS ONE FILE AND NAMED ACCORDINGLY: E.G., AnnexVI-ECA-DDMMYY.PDF (e.g., AnnexVI-ECA-01AUG12.pdf)
 - FOR VESSELS OPERATING WITH AN EXCEPTION/EXEMPTION – E-MAIL SENT TO cgCVC@uscg.mil (see Section (1) of the ECA Job Aid for details) Y / N / N/A

ECA Deficiency Matrix
 Section 3
 Aug 2012

Observation	Code	Description	Cite	Code/Action Taken
<p>VESSELS UTILIZING LOW SULFUR F/O TO COMPLY WITH REG. 14</p> <p>Vessel did not have compliant fuel oil onboard for operating in the ECA; the F/O utilized was >1% sulfur. The master provided the proper documentation that efforts were made to procure compliant fuel oil and that the appropriate notifications to the United States (EPA non-availability report) and the vessel's flag administration were made prior to entering the North American ECA IAW Annex VI Regulation 18;</p>		<p>Foreign Vessel:</p> <p>While ships are operating within an emission control area (ECA), the sulfur content used on board ships shall not exceed 1%. The PSCO discovered that the vessel has been operating within the (Designate ECA – North American ECA) from DD/MM/YY to DD/MM/YY¹ utilizing fuel oil that does not comply with the MARPOL Annex VI ECA sulfur limits.</p> <p>U.S. Domestic Vessel:</p> <p>The MI discovered that the vessel has been operating within the (Designate ECA – North American ECA) from DD/MM/YY to DD/MM/Y utilizing fuel oil that does not comply with the MARPOL Annex VI ECA sulfur limits.</p>	<p>MARPOL Annex VI, Reg 14.4</p> <p>40 CFR 1043.60</p>	<p>Foreign vessel - Issue a Code 17. U.S. Vessel – Prior to departure</p> <p>Clear the Deficiency:</p> <ul style="list-style-type: none"> • Review records of actions taken and evidence submitted to Admin/EPA • If the vessel has received compliant fuel oil prior to or during USCG exam, obtain a copy of the BDN – amend with Code 10/U.S. Vsl Clear; or • Request a corrective action plan signed by the master stating that compliant fuel oil is: <ul style="list-style-type: none"> • scheduled to be received prior to departure - Upon receipt of a corrective action plan and copy of receipt & BDN clear the deficiency – code 10/U.S. Vsl Clear; • At the next U.S. port (request a copy of the receipt & BDN be sent to the issuing unit); amend with a Code 15; clear the Code 15 when receipt/BDN received – Code 10/ U.S. Vsl Clear; • Not scheduled for purchase, nor does the owner/operator intend to purchase compliant fuel oil – Code 50/ U.S. Vsl 30 days <ul style="list-style-type: none"> • If the latter two are chosen, inform the master that the Owner/operator is subject to a separate MARPOL Annex VI violation for each day of operation not in compliance with Annex VI. All ECA related deficiencies are referred to the EPA. The EPA may take enforcement action to include administrative penalties, and judicial action.

¹ MI/PSCO's may need to review the bridge log or other relevant documents for determining entry and time in the ECA.

ECA Deficiency Matrix Continued:

Observation	Code	Description	Cite	Code/Action Taken
<p>VESSELS UTILIZING LOW SULFUR F/O TO COMPLY WITH REG. 14 (Continued):</p> <p>Vessel did not have compliant fuel oil onboard for operating in the ECA; the F/O utilized was >1% sulfur: The master could provide the proper documentation that efforts were made to procure compliant fuel oil but that notifications to the United States and the vessel's flag administration were not made prior to entering the North American ECA IAW Annex VI Regulation 18.</p>		<p>Foreign Vessel:</p> <p>While ships are operating within an emission control area (ECA), the sulfur content used on board ships shall not exceed 1%. The PSCO discovered that the vessel has been operating within the (Designate ECA – North American ECA) from DD/MM/YY to DD/MM/YY² utilizing fuel oil that does not comply with the MARPOL Annex VI ECA sulfur limits.</p> <p>U.S. Domestic Vessel:</p> <p>The MI discovered that the vessel has been operating within the (Designate ECA – North American ECA) from DD/MM/YY to DD/MM/Y utilizing fuel oil that does not comply with the MARPOL Annex VI ECA sulfur limits.</p>	<p>MARPOL Annex VI, Reg 14.4</p> <p>40 CFR 1043.60</p>	<p>Foreign vessel - Issue a Code 17. U.S. Vessel – Prior to departure Clear the Deficiency:</p> <ul style="list-style-type: none"> • Request the master/operator provide notification to the Administration; • Request the master/operator of the vessel to submit a Non-Availability Report to the EPA; • Review records of actions taken and evidence for submittal to Admin/EPA • If the vessel has received compliant fuel oil prior to or during USCG exam, obtain a copy of the BDN – amend with Code 10/U.S. Vsl Clear; or • Request a corrective action plan signed by the master stating that compliant fuel oil is: <ul style="list-style-type: none"> • scheduled to be received prior to departure - Upon receipt of a corrective action plan and copy of receipt & BDN clear the deficiency – code 10/ U.S. Vsl Clear; • At the next U.S. port (request a copy of the receipt & BDN be sent to the issuing unit); amend with a Code 15; clear the Code 15 when receipt/BDN received – Code 10/ U.S. Vsl Clear; • Not scheduled for purchase, nor does the owner/operator intend to purchase compliant fuel oil – Code 50/ U.S. Vsl 30 days <ul style="list-style-type: none"> • If the latter two are chosen, inform the master that the Owner/operator is subject to a separate MARPOL Annex VI violation for each day of operation not in compliance with Annex VI. All ECA related deficiencies are referred to the EPA. The EPA may take enforcement action to include administrative penalties, and judicial action.

² MI/PSCO's may need to review the bridge log or other relevant documents for determining entry and time in the ECA.

ECA Deficiency Matrix Continued:

Observation	Code	Description	Cite	Code/Action Taken
<p>VESSELS UTILIZING LOW SULFUR/F/O TO COMPLY WITH REG. 14 (Continued):</p> <p>Vessel did not have compliant fuel oil onboard for operating in the ECA; the F/O utilized was >1% sulfur: The master could not provide the proper documentation that efforts were made to procure compliant fuel oil and that notifications to the United States and the vessel's flag administration were not made prior to entering the North American ECA IAW Annex VI Regulation 18.</p>		<p>Foreign Vessel:</p> <p>While ships are operating within an emission control area (ECA), the sulfur content used on board ships shall not exceed 1%. The PSCO discovered that the vessel has been operating within the (Designate ECA – North American ECA) from DD/MM/YY to DD/MM/YY³ utilizing fuel oil that does not comply with the MARPOL Annex VI ECA sulfur limits.</p> <p>U.S. Domestic Vessel:</p> <p>The MI discovered that the vessel has been operating within the (Designate ECA – North American ECA) from DD/MM/YY to DD/MM/YY utilizing fuel oil that does not comply with the MARPOL Annex VI ECA sulfur limits.</p>	<p>MARPOL Annex VI, Reg 14.4</p> <p>40 CFR 1043.60</p>	<p>Foreign vessel - Detain⁴ Code 30. U.S. Vessel – Prior to Departure Clear the Deficiency:</p> <ul style="list-style-type: none"> Request the master/operator provide notification to the Administration; Request the master/operator of the vessel to submit a Non-Availability Report to the EPA; Review records of actions taken and evidence for submittal to Admin/EPA If the vessel has received compliant fuel oil prior to or during USCG exam, obtain a copy of the BDN – amend with Code 10/ U.S. Vsl Clear; or Request a corrective action plan signed by the master stating that <ul style="list-style-type: none"> scheduled to be received prior to departure - Upon receipt of a corrective action plan and copy of receipt & BDN clear the deficiency – code 10/U.S. Vsl Clear; At the next U.S. port (request a copy of the receipt & BDN be sent to the issuing unit); amend with a Code 15; clear the Code 15 when receipt/BDN received – Code 10/ U.S. Vsl Clear; Not scheduled for purchase, nor does the owner/operator intend to purchase compliant fuel oil – Code 50/ U.S. Vsl 30 days <ul style="list-style-type: none"> If the latter two are chosen, inform the master that the Owner/operator is subject to a separate MARPOL Annex VI violation for each day of operation not in compliance with Annex VI. All ECA related deficiencies are referred to the EPA. The EPA may take enforcement action to include administrative penalties, and judicial action.

³ MI/PSCO's may need to review the bridge log or other relevant documents for determining entry and time in the ECA.

⁴ To be effective, it is important that the Coast Guard's application of the targeting regime remains consistent. In addition to focusing USCG resources, the *PSC Safety and Environmental Protection Compliance Targeting Matrix* serves to place the onus for maintaining vessels to accepted standards on those entities most responsible, including ship management, Recognized Organizations, and flag States. Linking targeting decisions to the performance records of the ship, the ship's management, Recognized Organizations and flag State helps ensure accountability.

ECA Deficiency Matrix (continued)

Observation	Code	Description	Cite	Corrective Action
<p>LOGBOOK (minor discrepancies):</p> <p>Crew did not properly document in the logbook (as prescribed by the Administration for recording ECA items); the volume of low sulfur fuel oils in each tank; or date & time; or the position of ship when fuel oil changeover operation was completed (prior to entry or after exit from the ECA).</p>		<p>Foreign Vessel:</p> <p>Ships utilizing separate fuel oils to comply with the (Designate ECA – North American ECA) sulfur content shall record the required change-over operations in the logbook as prescribed by the Administration. While operating in the North American ECA, the vessel's master/crew did not properly document (the volume of low sulfur fuel oils in each tank and/or date, time and position of ship when fuel oil changeover operation is completed prior to entry or after exit from the ECA) in the XXXX (e.g., oil record book, bridge log, engine room log, Annex VI logbook, etc...) which is the required logbook designated by the Administration.</p> <p>U.S. Domestic Vessel:</p> <p>While operating in the North American ECA, the vessel's master/crew did not properly document (the volume of low sulfur fuel oils in each tank and/or date, time and position of ship when fuel oil changeover operation is completed prior to entry or after exit from the ECA) in the XXXX (e.g., oil record book, bridge log, engine room log, Annex VI logbook, etc...) which is the required logbook designated by the Coast Guard.</p>	<p>MARPOL Annex VI, Reg 14.6</p>	<p>Foreign vessel - Issue a Code 17. U.S. Vessel – Prior to departure Clear the Deficiency:</p> <p>Advice the Master that the discrepancy regarding the logbook entry must be corrected prior to the departure and that the entries entered must reflect the events as they actually occurred.</p>

ECA Deficiency Matrix (continued)

Observation	Code	Description	Cite	Corrective Action
<p>LOGBOOK (major discrepancies):</p> <p>Entries in the logbook as recorded by the crew indicate that the change-over procedures for switching from 3.5% to 1.00% sulfur content occurred prior to the ECA; Or, after exiting the ECA. However, the MI/PSCO has discovered/determined that the change-over occurred after entering or before exiting the ECA (how determined - reviewing of multiple logs showing inconsistencies or due to a report received) which conflict with the change-over operations as recorded in the (what is the title of the logbook) as prescribed by the Administration</p>		<p>Foreign Vessel:</p> <p>Ships utilizing separate fuel oils to comply with the (Designate ECA – North American ECA) sulfur content shall record the change-over operations in the logbook prescribed by the Administration. During review of the xxxx (e.g., oil record book, bridge log, engine room log, Annex VI logbook, etc...) designated by the Administration for recording fuel oil change-over operations, the PSCO noted inconsistencies regarding the XXXX (volume of low sulfur fuel oils in each tank; date; time; position of ship) recorded when the fuel oil changeover operation was completed. This/these inconsistencies as recorded conflict with the (bridge log, crew statements, etc..) which indicate the completion of the fuel oil change-over occurred after entering (or before departing) the (Designate ECA – North American ECA). The PSCO questions the authenticity of the (name the log book) as presented and the crew's compliance with MARPOL Annex VI regarding the prevention of pollution by emissions.</p>	<p>MARPOL Annex VI, Reg 14.6</p> <p>33 U.S.C. 1907</p>	<p>Foreign vessel - Detain⁵ Code 30.</p> <p>Units shall refer to CG-CVC Policy Letter 12-02 section 9.c regarding the detection of violations; evidence of Criminal Liability onboard a vessel. Early engagement with HQ via the chain of command will help facilitate the inspection/exam and investigation process.</p>

⁵ To be effective, it is important that the Coast Guard's application of the targeting regime remains consistent. In addition to focusing USCG resources, the *PSC Safety and Environmental Protection Compliance Targeting Matrix* serves to place the onus for maintaining vessels to accepted standards on those entities most responsible, including ship management, Recognized Organizations, and flag States. Linking targeting decisions to the performance records of the ship, the ship's management, Recognized Organizations and flag State helps ensure accountability.

ECA Deficiency Matrix (continued)

Observation	Code	Description	Cite	Corrective Action
<p>LOGBOOK (major discrepancies continued):</p> <p>Entries in the logbook as recorded by the crew indicate that the change-over procedures for switching from 3.5% to 1.00% sulfur content occurred prior the ECA; Or, after exiting the ECA. However, the MI/PSCO has discovered/determined that the change-over occurred after entering or before exiting the ECA (how determined - reviewing of multiple logs showing inconsistencies or due to a report received) which conflict with the change-over operations as recorded in the (what is the title of the logbook) as prescribed by the Administration</p>		<p>U.S. Domestic Vessel:</p> <p>During review of the xxxx (e.g., oil record book, bridge log, engine room log, Annex VI logbook, etc...) recording the fuel oil change-over operations, the Inspector noted inconsistencies regarding the XXXX (volume of low sulfur fuel oils in each tank; date; time; position of ship) recorded when the fuel oil changeover operation was completed. This/these inconsistencies as recorded conflict with the (bridge log, crew statements, etc..) which indicate the completion of the fuel oil change-over occurred after entering (or before departing) the (Designate ECA – North American ECA). The Coast Guard questions the authenticity of the (name the log book) as presented and the crew's compliance with MARPOL Annex VI regarding the prevention of pollution by emissions.</p>	<p>MARPOL Annex VI, Reg 14.6</p> <p>33 U.S.C. 1907</p>	<p align="center">U.S. Vessel – No Sail 835</p> <p>Units shall refer to CG-CVC Policy Letter 12-02 section 9.c regarding the detection of violations; evidence of Criminal Liability onboard a vessel. Early engagement with HQ via the chain of command will help facilitate the inspection/exam and investigation process.</p>

*This matrix is not an all inclusive list of deficiencies regarding Annex VI. Other related deficiencies may include: Equivalence, Exceptions, Failure to Complete Fuel Oil Change-Over Procedures, Written Procedures for fuel oil change-over missing/incomplete to affectively perform task, etc...

SPECIAL NOTE EXAMPLE:

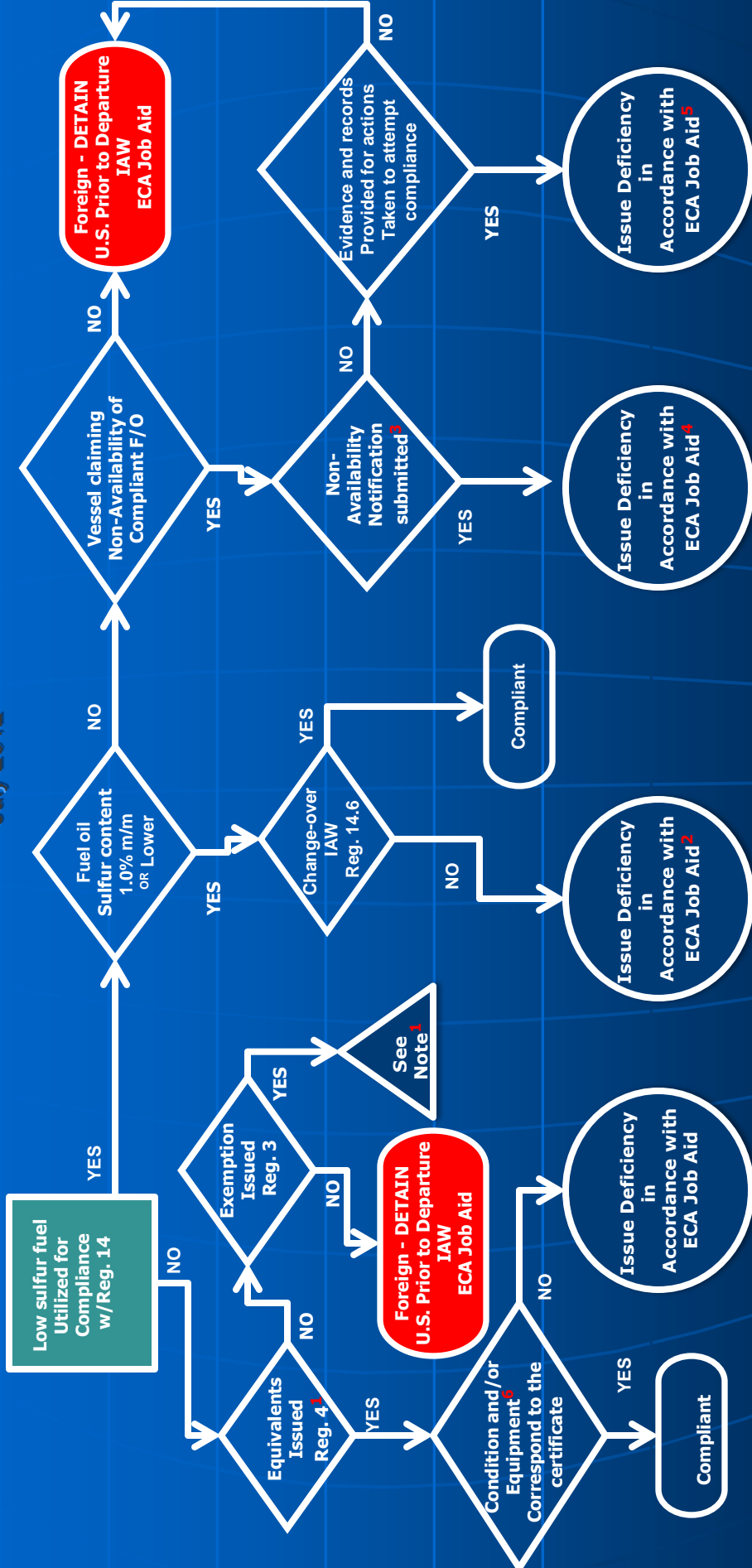
<p>SPECIAL NOTE FOR non-availability report received (5.a.i.(2))</p>				<p>DDMMYY (e.g., 01Aug12) (Unit name – Sector New Orleans) received a report from the (master, agent, etc) notifying the US that the vessel was not able to receive 1.00% ECA compliant fuel oil. The reporting source was provided with EPA’s web link and advised to submit a fuel oil non-availability report to the EPA and that submittal and or receipt of this notification does not serve as a waiver or exemption from the requirements of Annex VI Regulation 14.</p>
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ECA Job Aid

Section 4

ECA Compliance Flow Chart

July 2012



¹ Exemptions permitted by the Flag State may not be reflected on the IAPP Cert (separate Permit). Equivalents allowed by Flag States will be reflected in section 2.6 of the IAPP Certificate (Supplement); See CG-CVC Policy Letter paragraph 5.b. & 5.c. regarding Exemptions & Equivalents.

² If the vessel utilized a higher sulfur content fuel oil inside the ECA a MARPOL and APPS violation has occurred – Refer to the ECA Job Aid for deficiency .

³ See CVC Policy section 5.a.iii. referencing EPA's Interim Guidance on the Non-Availability of Compliant Fuel Oil for the North American ECA dated June 26, 2012

⁴ Vessels providing notification to the flag State and Competent Authority (EPA) do not receive a waiver from being in violation of the ECA. A Party shall take into account all relevant circumstances and the evidence presented to determine the appropriate action to take, including not taking control measures – Refer to the ECA Job Aid for deficiency.

⁵ MARPOL Annex VI, Reg 18.2.1: A vessel may present a record of actions taken & provide evidence to attempt to achieve compliance . Such records/evidence/actions do not exempt a vessel from the requirements or grant a waiver for the violation. Refer to the ECA Job Aid for deficiency .

⁶ See CVC Policy Letter paragraph 5.d. regarding equipment covered by Annex VI which has experienced a casualty or failure.