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# **SKY-HOLE PATCHING PROJECT II**

Global Joint Effort to Monitor Trade in Ozone Depleting Substances and Combat Their Illegal Trade



# **World Customs Organization**

# Division of Technology, Industry, and Economics, UNEP

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# 1. Introduction

- Life on Earth depends on stratospheric ozone to screen harmful ultraviolet solar radiation (UV). Exposure to which can cause skin cancer, cataracts and weakening of the immune system. Depletion of the ozone layer has occurred due to human activities which have introduced artificially high quantities of ozone depleting substances (ODS) such as CFCs (chlorofluorocarbon), HCFCs (hydrochlorofluorocarbons), halons into the stratosphere, causing higher quantities of ultraviolet radiation to reach the Earth's surface. ODS have contributed some 15 – 20 % of global climate change as many of these chemicals are powerful green house gases.
- 2. The production and consumption of all ODS by human activities are now tightly regulated worldwide by national legislation and the Montreal Protocol, which achieved universal ratification in 2009. Its objective is to reduce and eliminate the consumption and production of ODS according to agreed timetables for developed and developing countries.
- 3. Illegal trade in ODS first came to light in the mid-90s. It was estimated 40,000 tonnes of illegal ODS was moved across borders annually during the peak period in late 1990s, accounting for 20% of total trade. Inevitably, because of its illicit nature, the extent of illegal trade is next to impossible to assess. Currently, there is insufficient sharing of licence information between the parties except between those countries which participate in the informal Prior Informed Consent (iPIC) mechanism facilitated by the United National Environment Programme (UNEP) OzonAction Programme. There continue to remain significant discrepancies between data declared by importing and exporting countries.
- 4. The Sky-Hole Patching Project coordinated by the RILO AP and the UNEP Regional Office for Asia and the Pacific (ROAP) and participated by 16 regional Customs services has resulted in seizures of more than 729,000 kg of ODS in 301 incidents since its launch on 1 September 2006. R-12 and HCFC were two major types of ODS intercepted. It is worth noting that the seizures (574 tonnes) in phase two from May 2008 to November 2009 have seen increase of 371 % over the phase one (September 2006 to April 2008). The globalization of the Project SHP certainly enhance the efforts in fighting against the ongoing cross border flow of illegal ODS at international level.
- 5. Since 1<sup>st</sup> January 2010, production and consumption (as defined in the Protocol) of CFCs, as well as some other important ozone depleting chemicals, such as halons and carbon tetrachloride (CTC), have been phased out in all countries. International trade of the virgin chemicals is no longer permitted. The European Union (EU) has implemented an early phase-out of ODS except for some specific use. There have been incidents of illegal trade of virgin HCFCs in the name of "recycled" in European market. It was estimated that there will be only 5,000 tons of recycled HCFCs available, leaving a demand gap of 15,000 tons in the EU after the ban. The United States has cut its consumption of HCFCs (hydrochlorofluorocarbons) by 75 % compared with earlier baseline.
- 6. However, the phase-out of production and trade ban does not mean the end of problem and our vigilance. In November 2009 the US authorities announced a court case involving seizure of over 419,000 kgs of illegally imported HCFCs. There have been numerous reports of significant seizures of illegally traded ODS in the Asia/Pacific and Africa in 2009. ODS has seen its illegal trade in all regions of the world. Asia-Pacific has suffered significantly, as it was until recently home to more than 70% of the worlds CFC production and consumption.

- 7. There has been very high demand for illegal ODS, such as those in stocks, evidence has shown this occurring. There is also an inherent risk of illegal exports of second hand equipment into developing countries, from countries where virgin refrigerants are no longer available. Such exports took place on a large scale when CFC was phased-out in developed countries.
- 8. An emerging problem is the trade and sale of mixed, mislabelled or even counterfeit products. In addition, mis-declaration of virgin ODS as "recycled" commonly found on many markets in the past will soon again emerge to circumvent the recent production and trade ban. The poor quality of which can damage equipment. There is an urgent need for Customs, together with their national authorities take proactive actions to monitor the trade and prevent emerging forms of trafficking triggered by the phase-out.
- 9. Bearing this in mind, the WCO Secretariat and the UNEP propose a joint project monitoring the emerging trend of trade in ODS and combating their trafficking in the near future, involving all WCO member Customs administrations worldwide.

# 2. Legal basis

# 2.1. Montreal Protocol

- 10. The Montreal Protocol, with now 196 Parties (i.e. all UN and WCO member States), aims to protect the ozone layer by phasing-out production and consumption of the ODS. Parties to the Protocol have committed to:
  - Complying with the Protocol's target schedule for ODS phase-out by introducing control measures to ensure that its government will meet its obligations. Parties must freeze, reduce and phase out their production and consumption of ODS according to a specific step-wise schedule
  - Establishing and enforce a national import/export licensing system that covers all ODS (new, recycled and reclaimed) controlled by the Protocol. Monitoring of ODS export/import also helps prevent illegal exports such as those intended for non-Party countries,
  - Reporting production and consumption of ODS on an annual basis (Article 7 data reporting).

# 2.2. National legislations

11. Almost all countries have implemented various national legislation based on the Montreal Protocol to regulate the production, markets, and export/import of ODS. Customs administrations in most countries are tasked by their government to enforce the Protocol at the border to ensure import and export compliance with Protocol and national legislation. Customs also have a role in providing import and export data to contributing to complying with the country's reporting requirements under the Montreal Protocol.

# 2.3. EU legislations

12. At EU level <u>Regulation (EC) No. 1005/2009<sup>1</sup></u> on substances included detailed reporting requirements for these substances and a legal basis for inspections and penalties whilst also foreseeing the inclusion of new substances into the control scheme. The EU

<sup>1</sup> http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000R2037:EN:NOT

<u>electronic licensing system</u> for imports and exports of ODS also serves to prevent the illegal trade in ozone-depleting chemicals.

13. All ODS covered by the Montreal Protocol are phased out except for a limited number of well-defined exempted uses. Existing refrigeration equipment can be used and refilled with non-virgin HCFC until 2015. Import, export and transit of ODS and products containing ODS are now prohibited except for critical and essential laboratory and analytical uses. Methyl bromide for quarantine and pre-shipment uses may be reexported until 2014. HCFCs may be re-exported and imported for destruction until 2019.

#### 2. 4. Bilateral mutual assistance arrangements

14. In addition, there have been numerous mutual administrative assistance agreements in existence among participating Customs administrations, which consist of information sharing based on request and spontaneous information exchange. These agreements also provide the legal basis of cooperation among relevant Customs administrations, including information exchange.

### 3. Objectives

15. The Project aims to:

- 1) Bring awareness of illegal trade in ODS,
- Demonstrate the commitment of and the important role played by Customs in controlling the trade in ODS and combating its trafficking, thus contributing to mitigation of climate change and promotion of sustainable development,
- Improve mutual understanding and practical cooperation among Customs administrations, Customs and environmental agencies, and relevant international organizations and their regional networks,
- 4) Monitor emerging trends since the phase-out of some forms of ODS,
- 5) Quantify and qualify the scale and seriousness of illegal trade in ODS at global level,
- 6) Identify new threats, learn lessons and gain experiences through the Project,
- 7) Keep track, verify the final destinations of the monitored ODS, Specifically in relation to Article 5 countries in the 5 countries listed in the Montreal Protocol,
- 8) Deliver tangible results in terms of detection, interception and seizure of ODS,
- 9) Identify and clamp down operators involved in illegal trade in ODS,
- 10) Develop specific risk indicators and profiles regarding this illegal activity.

# 4. Name of the Project

16. The project is coded as Sky-Hole Patching Project II, as the follow-up and globalization of the SHP Project.

#### 5. Participating Customs administrations

- 17. All WCO active member Customs administrations with their governments as Parties to the Montreal Protocol are invited to participate.
- 18. Taking into account of the current situation, the Project will focus on trade in ODS in the Asia/Pacific, Middle East, Central Asia, Africa and North America, Caribbean region, and Eastern and Southern Europe. Countries in South American and EU Members States are also encouraged to participate.

### 6. Supporting organizations

- 19. The Project is proposed and mobilized by the WCO Secretariat and UNEP, specifically the OzonAction Branch located within its Division of Technology, Industry and Economics (DTIE), and run by individual Customs administrations. Support will be received from:
  - The OzonAction Branch, DTIE, UNEP,
  - The Regional Networks of Ozone Officers, which are managed by UNEP OzonAction Branch.
  - Regional Enforcement Networks of Customs and Ozone Officers of UNEP DTIE in Eastern and Central Europe
  - National authorities with responsibilities of implementing the Montreal Protocol, known as National Ozone Units (NOUs), which are usually part of the Ministry of Environment; The 11 WCO RILOs<sup>2</sup>.
  - Environmental Investigation Agency (EIA) as the non-governmental organization.
- 20. The WCO Secretariat and DTIE undertake to encourage participation of all parties and provide necessary assistance, among other things, providing background information, organizing training activities for Customs officers, hosting briefing and debriefing meetings, setting up CENcomm as the communication tool for the Project.

# 7. Scope

21. Seaport and land border are the vital component of logistical supply chain of ODS. The operation will therefore focus on shipments transported via marine and land.

22. The Project comprises five components:

- Monitoring of ODS shipments in all participating countries, including export, and import, based on risk assessment,
- Notification as authorized by national legislation of exported shipments that could pose high risk as being illegal ODS to importing countries, specifically Article 5 countries in the Montreal Protocol,
- Feedback against any Notification received from exporting or transiting countries,
- Identification and detection of illegal ODS shipments, either imported or exported in each participating country,
- Reporting of any interception or seizure under the framework of the Project.
- 23. In cases where the goods are released without physical control, exporting Customs shall also conduct documentary control by using risk assessment techniques and notify importing countries of possible high risk shipments, if provision of such spontaneous information is possible under the framework of national legislation and/or mutual assistance.
- 24. At the same time, experiences have unveiled that illegal ODS shipments very often transit via third countries before reaching their final destinations to circumvent detection.

<sup>2.</sup> RILOs for the following regions: Asia/Pacific, Eastern and Central Europe, Commonwealth Independent States (CIS), Western Europe, South America, Joint Intelligence Office (Caribbean), Middle East, North Africa, Western Africa, Central Africa, Eastern and Southern Africa.

Monitoring transit shipments certainly merits the Project. It is therefore recommended that participating countries include transit shipments into the Project, where possible, although transit is not covered by the Montreal Protocol

25. It's left to the discretion of participating Customs to select numbers of maritime ports and land border check points for the Project. The operational coordination unit (OCU) shall be provided with the lists 2 weeks before the operational phase, so that they can be shared by all participating countries via communication tool provided.

### 8. Targets

26. It is proposed that the Project targets all trade in:

- CFCs and CFC-containing mixtures,
- HCFCs and HCFC-containing mixtures,
- HFCs and HFC-containing mixtures,
- Recycled refrigerants (CFC, HCFC, and HFC).
- 27. Although not being ODS nor currently subject to any regulatory control in most countries, HFCs (hydrofluorocarbons) have been commonly used to disguise illegal CFCs or HCFCs. Recycled refrigerants should also closely watched out since virgin ODS may also be mislabelled as "recycled". All shipments of HFCs and "recycled" refrigerants should also be targeted to prevent them from being abused. A list of proposed targets is annexed to this Plan.
- 28. Participating countries may decide to target other forms of ODS controlled by the Montreal Protocol or national legislation at national level. For example methyl bromide, halons, carbon tetrachloride. Countries may also wish to consider including second hand refrigeration and air-conditioning (RAC) equipment containing / relying on ODS if national law prohibits its import/export.
- 29. The Correlation between the Product Coverage of Selected International Conventions and the Harmonized System (HS) developed by the WCO and Secretariats of relevant Conventions may help build up linkage between lists in the Montreal Protocol and HS subheadings for the purpose of monitoring and profiling. The document will be uploaded to the Library in CENcomm to enable installation of proper targeting parameters within risk assessment system.
- 30. Detention or seizure of other goods such as endangered species, hazardous waste controlled by trade related multilateral environmental agreements (MEAs) resulting from actions shall also be reported and treated as results of the Project.

#### 9. Responsibilities

#### 9.1. Customs administrations

31. Participating Customs undertake to:

- Develop intelligence and enhance risk assessment shortly before and during the Project,
- Intensify control over exports and imports via seaborne vessels or land transport,
- Target and subsequently conduct physical control on high risk shipments,
- Seize or suspend release of shipments of ODS constituting illegal trafficking or infractions, based on national legislations or other applicable regulations,

- Notify of released exporting shipments destined to importing or transit countries to enable monitoring and verification of final destinations and use, where such provision of spontaneous information is possible under the framework of Mutual Assistance,
- Provide feedback via CENcomm against any received information. In case where the interception or seizure is made not as the direct result of information exchange under the framework of the Project, relevant information should also be provided to the exporting Customs to enable possible follow-ups.
- 32. Where possible, physical control and interception of ODS shipments shall target three flows:
  - Exports,
  - Direct imports,
  - Transit/transhipments, where possible. In this case, participating countries should also notify participating Customs at the next stop.

#### 9.2. WCO Secretariat and DTIE

#### 9.2.1. The WCO Secretariat is committed to:

- Designing and preparing the Project Plan in consultation with UNEP and other parties,
- Sending invitation letters to all Customs administrations covered by the Project,
- Coordinating briefing and debriefing meetings, where necessary and as suggested by participating countries,
- Promoting the Project at all proper forums so as to gain supports,
- Providing CENcomm as communication tool during the period of the Project,
- Supporting the OCU and other participating countries, where needed,
- Coordinating and publishing the final Project report.

#### 9.2.2. The UNEP DTIE is committed to:

- Communicating with its Regional Networks of Ozone Officers and individual National Ozone Units (NOUs), and encouraging them to provide all necessary support to national Customs administrations,
- Where possible, coordinating and organizing trainings or include sessions related to the Project in planned trainings and workshops for Customs officers, inter alia, under the framework of Green Customs Initiative<sup>3</sup> (GCI).
- Coordinating assistance to Customs officers in terms of identification or clarification of technical questions.
- Coordinating publicity and awareness bringing on the completion of the Project at the national level and international level. DTIE will also outreach the results to the Montreal Protocol community, key institutions and decision-makers.

<sup>3.</sup> GCI is a collaboration of training activities by 11 partner Organizations for the purpose of raising enforcement capacity of customs officers on several trade related MEAs. For more information please refer to <a href="http://www.greencustoms.org">www.greencustoms.org</a>

#### 9.3. Supporting Organizations

#### 9.3.1 National Environmental Authorities, particular their National Ozone Units (NOUs) to:

- Liaise with national Customs counterparts in each country for possible mobilization,
- Nominate contact points both at headquarters and frontlines for coordination and collaboration with Customs counterparts,
- Organize technique and knowledge oriented trainings to Customs officers, and provide any possible practical information such as current situation, list of ODS related operators, on-going abnormal activities,
- Set up or joint task forces formed by experienced officers from both services to reinforce enforcement efforts, if possible,
- Host or join ad hoc meetings/consultations in collaboration with Customs administrations,
- Assist with identifying and handling of seized goods which may fall into the subjects of the Project.

It is also strongly recommended that NOUs be handed over and undertake to dispose of the seized ODS, given the fact that Customs administrations do not have such facility and capacity to do so.

#### 9.3.2. WCO RILOs are to:

- Encourage active participation of their regional Members,
- Support the Operational Coordination Unit (OCU), and maintain contacts with regional members,
- Facilitate information exchange and cooperation at regional level upon requests,
- Facilitate reports of all seizures affected during the period.
- 33. All participating RILOs will be granted the status of OCU on CENcomm, in order for them to gather information and facilitate information exchange at the regional level.

#### 9.3.3. The EIA is to:

- Liaise and coordinate with RILOs and participating Customs administrations,
- Join trainings to Customs officers in participating countries,
- Enhance monitoring of the trade, and provide intelligence (ongoing activities and watch lists, etc.) to RILOs or participating Customs.

#### 10. Profiling and scope of information exchange

- Shipments falling into the following profiles shall be the targets of risk assessment, control and possible notification in all participating countries:
- Declared as ODS, or suspected of containing ODS (including equipment possibly containing ODS),
- Declared by known ODS dealers, or dealers involving in similar business (such as refrigerating, air-conditioning industry),
- Handled by operators (exporters, importers, carriers, etc.) who have been involved in previous illegal trade in ODS, based on national profiles.

• Not declared as ODS but suspected of containing ODS. Based on previous experiences, a large majority of illegal shipments are not declared or hidden among legitimate cargo. Enforcement efforts should also focus on such modus operandi.

34. Information exchanged shall, as far as possible, include:

- Date of export, import, transit,
- Points of departure, transit (transhipment) and destination,
- Exporter/importer in both countries,
- Carrier, name of means of transport/plate numbers,
- Declared names, weight, net mass and description of goods in cases they are deemed as high risk shipments,
- Designation and physical description of the goods,
- Type and number of packages,
- Bill of lading,
- Container numbers.
- 35. Copies of the quota or permits (issued by the National Ozone Units) should also be shared (e.g. as attachments of messages), subject to availability.
- 36. Given the possible illegal diversion en route, participating Customs are encouraged to share information with all other participating Customs that may be involved in the specific shipments. Information sharing among participating agencies in each country is also encouraged.
- 37. All participating Customs shall implement risk assessment to identify and target high risk shipments of ODS. A set of risk indicators based on the WCO Standardized Model Risk Indicators / Profiles (EC0149E9a) is attached as Annex II and III for this purpose. Participating Customs are also encouraged to develop and share their national indicators during the period.
- 38. All information exchanged should be dealt with rule of confidentiality, and should not be used for any purpose other than this Project, unless otherwise authorized by the providing parties.

#### 11. Safety measures

Participating Customs shall ensure that safety measures are adopted for Customs officials and other persons who might be exposed to potentially dangerous and toxic materials when conducting physical checks during the period. Information on safety measures can be found in Annex V.

#### 12. Duration

39. The Project will commence no later than <u>Monday 3 May 2010</u> with a period of six continuous calendar months.

#### 13. OCU and NCPs

#### 13.1. Operational Coordination Unit (OCU)

40. Given the length of the Project and limited resources available, it is proposed that a virtual OCU be set up during the period of the Project. As proposed at 29<sup>th</sup> session of the Enforcement Committee held in March 2010, and making use of experiences

accumulated via coordinating the Sky-Hole Patching Project, the RILO AP has offered and is tasked to act as the V-OCU for this Project. The OCU is tasked to:

- Coordinate and monitor the development of the Project during the whole period,
- Facilitate information exchange,
- Collect all relevant information provided by participating countries via CENcomm,
- Maintain contacts with the WCO Secretariat to ensure smooth operation of CENcomm, including management of the Library,
- Issue interim Newsletters (ideally one for each month),
- Analyze the results and prepare the final report of the Project.

41. For the purpose to enable discharging its responsibilities, the OCU should be:

- Staffed with experienced Customs officers. All participating Customs administrations are encouraged to second their officers as the Members of the OCU,
- Provided with adequate infrastructure (offices, telephone lines, fax machines, computers, etc.),
- Granted access to all nominal information contained in the formatted messages and exchanged via CENcomm,
- Automatically copied of all communication of formatted messages via CENcomm.

### 13.2. National Contact Points (NCPs)

42. Each participating Customs shall designate its own NCP and notify the WCO Secretariat before the pre-operational phase. Participating Customs should also nominate points of contact at each port/point selected for the Project. All contact points at national or regional levels shall preferably be the officers directly involved in the Project.

43. The NCPs are tasked to:

- Coordinate at national level during all phases of the Project,
- Notify the OCU of list of selected ports/points,
- Exchange information with NCPs of other participating countries via CENcomm,
- Maintain contacts with all other participating Customs and supporting agencies,
- Report seizures to the OCU,
- Submit national reports to the OCU at the end of the Project.

#### 14. Communication Tool

- 44. CENcomm will be used as the secured platform for information exchange amongst participating countries and supporting organizations.
- 45. CENcomm application is accessible only to the closed user group (CUG) of officers for the duration of Project. User names and initiative passwords will be granted to all users involved. Tests by all users shall be conducted as least two weeks before the launching date.

- 46. Specially designed preformatted templates will be used in forms of warning message, feedback, and seizure message. A CENcomm manual, Project Plan, lists of ODS risk indicators, safety measures, operational statistics form and other relevant information provided by the WCO, international organizations, participating Customs and other supporting organizations will be uploaded onto the CENcomm Library and available to eligible users.
- 47. All communication under the framework of the Project <u>shall</u> be done via CENcomm. In case of urgent information exchange or temporary breakdown of CENcomm, fax or telephone may be used as alternative communication tool.
- 48. Supporting organizations may be granted send-only access to CENcomm to enable them to provide information via the tool.
- 49. Given the fact that automatic upload of seizure messages from CENcomm to the CEN database has not been possible and the ODS database will only be available with the implementation of pilot project of nCEN (national CEN) in the near future. While at the same time, creating the same mandatory fields (in the seizure template) as in the CEN database would delay reporting during the Project. Apart from reporting seizures via CENcomm during the Project, participating Customs are requested to report those seizures to the CEN database under the commodity "Other Prohibitions and restrictions", separately and as soon as possible.
- 50. The OCU and NCPs shall remain accessible via CENcomm or other communication alternatives (such as mobile phone) during normal business hours of the Project period.
- 51. The working language for the Project is English. However, French and Spanish versions of the Project Plan and templates in CENcomm are also available.

#### 15. Preparation

- 52. With the aims of attracting widest active participation and better preparing the Project, the following actions have taken place:
  - Discussion at the Global RILO meeting on 19-20 Jan. 2010 in Brussels,
  - Discussion at the 29<sup>th</sup> session of the Enforcement Committee held on 3 to 5 March 2010 in Brussels,
  - An official letter by the WCO Secretary General was sent to all WCO Membership on 9 February 2010. The UNEP DTIE subsequently communicated its regional ozone network and national authorities appealing for all necessary support to their Customs counterparts.

It is recommended that the following actions to be taken:

- Training activities to be arranged by the WCO, UNEP, e.g. via the Green Customs Initiative (GCI), and national authorities,
- Special meetings between Customs and national authorities at national level for details of cooperation, such as setting up joint task forces, responsibilities, and procedures,
- Information exchange, which may include:
  - Guidance as regards identification, handling procedures, and safety measures,
  - List of ODS producers, , licensed dealers, and persons who have been involved in previous illegal ODS shipments,
  - Intelligence concerning on-going trafficking, if any.

• Given the regional diversity of trade in ODS, it is also recommended that briefings and debriefing be held at national or regional level. This could be coordinated by WCO RILOs and UNEP Regional Networks of Ozone Officers based in each region.

53. Prior to the implementation of the Project, the following actions also need to be taken:

- Designation of NCPs and points of contact at frontline offices in each country,
- report by the NCPs to the V-OCU of selected ports for the Project,
- Collection of relevant information and development of risk indicators at national level,
- Test of CENcomm, to be done two weeks before the launch of Project,

### 16 Expenses

54. Participating Customs and supporting agencies will have to bear all costs associated with the operation and any follow-up. The WCO Secretariat and UNEP DTIE are unfortunately not able to provide any financial assistance to actions taken under the framework of the Project, except for limited numbers of training activities.

# 17. Reporting

- 55. The draft report shall be prepared by the OCU and circulated to all participants before it is finalized. Among other things, the report aims to:
  - Summarize actions taken during the whole period,
  - Analyse the emerging trends, and evaluate outcomes of the Project,
  - Develop new risk indicators and identify new threats,
  - Identify experiences, draw up lessons learned, and recommend the way forward.
- 56. All participating Customs are requested to provide relevant information to the OCU 14 working days after the end of the Project to facilitate preparation of the final report. The reports may include Customs offices and officers involved, numbers of information exchanged, numbers of physical control, seizures / detentions (case numbers, quantity, names of goods, and arrest / detention of suspects). A reporting form is attached to this Plan (Annex IV).

#### 18. Observers

- 57. Any Customs administration covered by the Project may opt to join as observer, in the case where direct participation is deemed not possible. The following rules should be applied for this purpose:
  - Observers should be those Customs covered by this Operation, and expressly indicate their intensions to join the Project as observers,
  - The observers may be:
    - Granted access to CENcomm closed user group (CUG),

- Shared with results of the Project,
- Notified of any information which is directly related to them,
- The observers should respond to requests for assistance where the issue in question is related to them.

#### 19. Release of results

58. The results of the Project will be:

- Released to the public shortly after the Project by the WCO and UNEP, if possible,
- Released to the public by the UNEP in collaboration with WCO by launching events and press release,
- Reported by the WCO Council Sessions (general information only),
- Analyzed and final report distributed to all WCO Members and pertinent agencies,
- Reported to the next Ministerial Conference of Parties to the Montreal Protocol.
- 59. Participating Customs may decide to announce their own results after WCO's public release.

### 20. Briefing and Debriefing

60. Given the regional diversity of trade in ODS, it is also recommended that briefings and debriefing be held at national or regional level. This could be coordinated by WCO RILOs and UNEP's Regional Offices located in each region. The WCO Secretariat and UNEP, DTIE are committed to providing any possible support to make them possible.

#### 21. Annexes:

- I. List of proposed targets of the Project;
- II. Common Risk Indicators for the Project;
- III. Specific Risk Indicators for the Project;
- IV. Safety measures associated with handling ODS;
- V. Operational Statistics of the SHP Project II;
- VI. Customs Officer's Quick Tool for Screening ODS;
- VII. Handling of Seized ODS and ODS-containing products and equipment.

#### Annex I

# List of proposed targets of the Sky-Hole Patching Project II

It is proposed that the Project targets trade in:

- CFCs (chlorofluorocarbon) and CFC-containing mixtures;
- HCFCs (hydrochlorofluorocarbons) and HCFC-containing mixtures,
- HFCs (hydrofluorocarbons) and HFC-containing mixtures,

OWHER

Annex II

<u>Common</u>	Risk	<b>Indicators</b>	for	Sky-Hole	Patching	Project II

	High	Medium	Low				
Description of Risk Indicators	(3)	(2)	(1)	Remark			
Consignor / consignee / No	tify			. <u>.</u>			
Adversely known	X						
Fictitious identity	Х						
First shipment	Х						
P. O. Box misused as address		Х					
Private person	Х						
Known risk area location	Х						
New Business	Х						
No address		Х					
Use of pre-paid cell phone numbers		X					
Container	-			,			
False number	Х						
Number incomplete	Х						
Empty container		X					
Not on the manifest		X					
Padlock	XX	X					
SOWN (SHIPPERS OWN)	X						
Seals / Broken		Х					
Seals / Not as on B/L	<b>\</b>	Х					
Private container – or in leasing	Х						
Goods							
Goods description not consistent with importer's business	Х						
Value versus freight charges		Х					
Weight not in accordance with type of goods			Х				
Payment in cash	Х						
Freight prepaid		Х					
Not usual for country of origin		X					
Common description		Х					
Suspicious commodity from port of visit		X					
Routing							
Port Hopping	Х						
Unusual routing	Х						
Change of destination	Х						
Special route information given by owner		Х					
Commercial documents/invoice, etc.							
Suspect because of number			Х				
Suspect because of unprofessional		X		ļ			
Suspect because not consisting signature, stamp		X					
Unusual Delivery instructio	ns	1	1	- (			
Importer anxious to obtain goods quickly	Х		ļ				
Returned undelivered notice of arrival		X					

Annex III

### Proposed Specific Risk Indicators for SHP Project II

(Based on WCO Standardized Model Risk Indicators / Profiles, EC0149E9a, 2009, and related UNEP publications)

#### <u>Goods</u>

- False tariff heading: Using incorrect Customs codes (ODS): Chemical substances are generally described by their trade names, which are not sufficiently descriptive. The chemical names can be very similar and it is difficult not to confuse what is banned and what is legally traded under the Protocol; several chemicals are assigned the same Customs codes
- 2. Inadequate general description, incomplete or inconsistent description of the product being imported or exported. For ODS, the chemical name, UN identifying number, ASHRAE, CAS, tariff codes and trade names present on the various documents must designate the same chemical
- 3. Declared as equipment: CFCs are frequently declared as "equipment", such as refrigeration equipment, compressors or auto parts
- 4. Tariff slippage to avoid providing a required document
- 5. False declaration of origin: verify that the country of origin is a Party of the Montreal Protocol and its amendments
- 6. Goods described not usually traded by the country of origin
- 7. Claiming virgin ODS as "used", "recovered", "reclaimed" or "recycled": Difficult to determine whether the substance is virgin or reclaimed; When faced with material described in this way, the first check to make is to ensure that the exporting country has recycling capacity. *A list of recycling and reclamation capacities can be obtained from the Ozone Secretariat.* The National Ozone Units may provide assistance to carry out indepth investigation
- 8. Products declared as waste considered as such in the country of transit or destination
- 9. Price not in line with international prices for CFCs. Many of the alternative chemicals for banned or restricted ODS have a higher value
- 10. False declaration of quantity (weight and volume)

#### **Documents**

- 11. Documents and cylinders switch: Illegal ODS are identified as a legal substance in Customs documents and shipped in cylinders used for the legal substance
- 12. Trade name, chemical name, HS code, ASHRAE<sup>4</sup>, CAS number (Chemical Abstracts Service registration number) and UN numbers not matching with each other
- 13. Manifest, invoice, packing list and Bill of Lading not matching with each other
- 14. Missing documents (invoice, packaging list, declarations at unloading, permits, manifest, etc.)

<sup>4.</sup> ASHRAE: American Society of Heating, Refrigerating and Air Conditioning Engineers

- 15. Re-using documentation such as an *export or import permit* (which is intended for a single transaction) repeatedly used for multiple shipments of ODS
- 16. False certificates indicating that the virgin product is recycled (ODS)

#### Packaging

- 17. Mislabelling: Products imported under another name. For example, the chemical names of ODS may appear identical to other alternative harmless substances which are often imported under their trade names
- 18. Altering the colour and label or logo: The product is identified by its standardized packaging which is not compliant, altering the colour and/or label of the original cylinders containing regulated ODS to pass them off as cylinders containing another chemical
- Poorly repainted or relabelled cylinders. Old, scratched and scarred paint may be another indicator of illegal activity. Disposable cylinders are reused to smuggle controlled ODS
- 20. Recently repainted (container, placards, labels)
- 21. Packaging not corresponding to the goods description or the declared value
- 22. Delivery instructions. Specific markings such as "Fragile", "Handle with care" or "Top-Bottom" on boxes, overly sophisticated or unusual packaging for the type of goods declared
- 23. Insufficient weight and inadequate packaging
- 24. Box or carton covering the cylinder indicating a permitted chemical such as R-134A but inside is contained a forbidden ODS such as R-12 (the cylinder markings may also indicate the forbidden ODS)

#### **Places of concealment**

25. Cylinder within a cylinder: (ODS) when a sample is taken from the top valves, only the legal substance is detected. The drums for hazardous wastes and materials may look like drums for chemical products with a regular and standardized size. If they seem oversized they may contain a regular size drum with illegal materials masked by legal products

An example of this kind of smuggling is depicted in the photos of refrigerant containers seized by Customs authorities in 1997. The CFC-12 containers were declared as a HFC-134a shipment. The small containers hidden in the big main containers held small quantities of HFC-134a. The valves of the small containers became visible only when the main containers were cut open. The main containers were filled with CFC-12.



- 26. Concealment of a larger quantity of ODS in an appliance only supposed to contain a small quantity. Appliances fitted with oversized storage tanks in the compressor are used to smuggle ODS. The most frequently used means of transport for this type of fraud are private cars, lorries (tipper trucks), trains, containers (contraband mixed in with other goods), cargo aircraft and merchant ships.
- 27. Goods mixed with other products. Unauthorized products concealed by or in the midst of authorized products
- 28. Goods masked to divert the service's attention: (ODS) Changing tank pressure by means of nitrogen, to make the cylinder pressure appear the same as that for an authorized product, adding a small quantity of chloropicrin to pure methyl bromide to change the latter's smell and giving the product a false insecticide code to avoid any monitoring (ODS), or adding pollutants to virgin products to alter their purity
- 29. Dented or mishandled containers or drums

#### Customs procedure

- 30. ODS on sale in the domestic market at lower-than-normal prices
- 31. Falsely declaring ODS as being granted an exemption for analytical or laboratory use
- 32. Returned merchandise: A product referred to as "returned merchandise" may conceal its true nature (ODS and waste). The return of "empty cylinders" (ODS), especially those from a country unlikely to use a large volume of refrigerants

#### **Routing**

- 33. Diversion of shipments: The products (ODS) are shipped to an intermediary country while in transit to their named destination ("transhipment"). The smugglers secretly switch the ODS in the shipping containers with other materials and place the ODS on the black market in the transit country
- 34. Shipments routed through a transit country when they could have been shipped directly through known transit countries
- 35. Declared country of origin only has limited or no production capacity for the legal chemical declared in the Customs documents
- 36. Repeated transactions in equipment for which there is no apparent demand in the domestic market

- 37. Transhipment in countries that produce the same ODS
- 38. Transhipment in countries unlikely to use the volume of ODS being shipped
- 39. Goods consigned in a country neighbouring a sensitive country of origin
- 40. Goods coming from or going to a country known as a global CFC marketplace
- 41. Country of origin/consignee/destination known as a country with parallel illicit markets

#### Individuals/ companies

- 42. Carrier not licensed to carry ODS shipments
- 43. Companies dealing in related chemicals (e.g. relevant to ODS)
- 44. Imports by companies new to this type of activity or having links with ODS distributors.
- 45. Large amounts of cash being transported
- 46. Name of consignee/importer not indicated, with only the freight forwarder's contact details being given
- 47. Erroneous or incomplete address for the consignee, or not corresponding to a company known in this sector of activity
- 48. Address given is a Post Office (P.O.) Box
- 49. Only a telephone number is indicated in the consignee box or in the special instructions

#### **Countries concerned**

- 50. Potential illegal sources of ODS: Legal production (e.g. stockpiles in the case of CFCs and halons), illegal production (either from illicit production facilities, or from over-production)
- 51. Developing countries (particularly for CFCs and halons), developed countries (particularly those that has restrictions in place for HCFCs)
- 52. Countries in conflict or which are politically unstable

#### **Other possible indicators**

- 53. Low market prices and poor uptake of alternative chemicals could indicate that demand for banned ODS is being satisfied by illegal supply.
- 54. Continued import of CFC-reliant equipment should be treated with concern as to continue servicing this equipment will require a continued supply of CFCs
- 55. Data analysis on import/export data discrepancies may help identify potential illegal trade in ODS
- 56. HCFC declared as HFC (non-ODS chemical), particularly as HCF-134a

Annex IV

### Proposed Safety Measures for SHP Project II

#### Safety and ODS

This information is taken from chapter 4 (p37-41) of the Training Manual for Customs Officers: Saving the Ozone Layer - Phasing out Ozone Depleting Substances in Developing Countries - Second Edition, produced by UNEP DTIE. The full manual is downloadable from the website<sup>5</sup>.

Ozone-depleting substances include a wide range of chemicals with different chemical and physical properties. Most ODS pose a risk to human health and the environment if handled, stored, transported or used without the proper safety precautions. National safety and transportation regulations must be observed for the handling, storage, use and transport of ODS or any other hazardous substances.

#### Safety and specific substances

#### Refrigerants

This section applies to both ODS refrigerants and ODS alternative refrigerants such as R-134a. Hydrocarbons are also used as refrigerants, but different safety measures should be followed for them because of their extreme flammability. See Annex C to this volume for the safety cards on ODS alternatives. ASHRAE Standard 34-1997 on the "Number Designation and Safety Classification of Refrigerants" classifies commonly used refrigerants according to their toxicity and flammability. The ix safety groups defined are A1, A2, A3, B1, B2 and B3. "A" signifies lower toxicity and "B" higher toxicity; "1" signifies no flame propagation, "2" lower flammability and "3" higher flammability. Thus B3, for example, would indicate a refrigerant with high toxicity and high flammability. ASHRAE safety groups for the most common ozonedepleting refrigerants are listed in Annex B.1 of [the manual].

Training Manual for Customs Officers Only trained and designated Customs officers should use refrigerant identifiers, the temperature-pressure method or leak detectors to check the contents of refrigerant containers. Local safety regulations must be observed. When Customs officers inspect the compressors of refrigeration and air-conditioning systems for labels to determine the refrigerant type and charge, the power supply should be disconnected—for example, refrigerators should be unplugged and vehicle motors should be turned off.

#### Methyl bromide

While inspecting goods, Customs officers may be at risk of exposure to methyl bromide and other fumigants. Methyl bromide is a highly toxic chemical that is invisible and odourless unless an odorant such as chloropicrin has been added. Overexposure to methyl bromide most commonly affects the nervous system. Effects include headache, nausea, vomiting, dizziness, blurred vision, poor co-ordination and twitching. High exposure can be fatal. A respirator may be necessary when working with methyl bromide. Customs officers should never open containers or take samples of methyl bromide. As the supply of methyl bromide decreases, the illegal trade will increase, along with the incorrect labelling of cylinders to avoid Customs scrutiny. Correctly labelled or not, methyl bromide is likely to be shipped either in low-pressure steel cylinders or in low-pressure tankers with a capacity of greater

<sup>5</sup> http://www.unep.fr/ozonaction/information/mmcfiles/6226-e-CTM\_Second\_Edition.pdf?r=3164

than 20 tonnes. Trade in small cans of about 1 kg capacity is possible as well, particularly to Article 5 countries. Because methyl bromide is often used in guarantine and pre-shipment applications, Customs inspectors could be exposed to residual fumigant gas that has not been vented fully or not vented at all, as well as to gas from cylinders containing methyl bromide, correctly labelled or not. According to a growing number of reports, methyl bromide is being found in fumigated containers arriving at destination ports at levels dangerous to human health. A trained environmental health and safety professional can determine whether methyl bromide is present in excessive concentrations so that Customs officers avoid accidental exposure when inspecting cargo. Liquid methyl bromide can cause delayed severe blistering burns. When it soaks into clothes or shoes it usually will not be bothersome at first, but severe blistering burns can appear up to a day or two later. Methyl bromide can also pass quickly through the skin into the body where it is poisonous. Anyone on whom liquid methyl bromide has been spilled or splashed should immediately remove all their contaminated clothing, including shoes, and wash themselves thoroughly with soap and water. Goggles should be worn when working with liquid methyl bromide to avoid splashes in the eyes. And the appropriate respiratory protection (self-contained breathing apparatus) should be used when there is a risk that methyl bromide is present at above the threshold limited value (TLV) listed on the safety or materials safety data sheet. The methyl bromide could be from leaking cylinders of correctly labelled methyl bromide, supplies of mislabelled methyl bromide or residual fumigant.

#### Halons

Halons are most commonly used as fire-fighting agents. They can be stored in a variety of pressurised containers, including hand-held portable extinguishers, small to large system cylinders, specialised aircraft spherical cylinders or large (1 tonne) transportation cylinders. Often the cylinders containing halons and other substances are super pressurised from 20 bar to even 100 bar with nitrogen, which increases the need to be vigilant when handling them. Under no circumstances should fittings, valves or safety caps be removed or damaged. Such actions will increase the risk that a cylinder will inadvertently discharge and become airborne, causing serious injury (including death) to nearby personnel or damage to other equipment and the inspection facility. If a sample of a gas is required for identification, it should be retrieved only by trained, qualified technicians using a suitable anti-recoil device and with the help of the manufacturer's manual. Elevated temperatures may cause pressure relief valves or other fittings to release halons or gases containing halon vapours into the environment. In addition to the instructions given in the next section for pressurised containers, Customs officers should refer to ASTM International Standard D5631, Handling, Storage and Transportation of Halon 1301. Halons produce toxic fumes in a fire. Because the gas is heavier than air, it may accumulate in low ceiling spaces, causing a deficiency of oxygen. Customs officers should ensure that the inspection area is adequately ventilated or use artificial respiration. If halons come into contact with the skin or eyes, they may cause frostbite. Thus inspectors should use cold insulating gloves and a face shield.

#### Carbon tetrachloride

CTC is a colourless liquid with a pungent odour. However, the odour does not provide adequate warning of the presence of harmful concentrations. Ventilation or even artificial respiration may be needed. CTC is harmful to the liver, kidneys, and central nervous system. Inhalation of carbon tetrachloride can produce dizziness, headache, fatigue, nausea, vomiting, stupor and diarrhoea. CTC also irritates the skin, and prolonged contact may cause dryness and cracking. Customs officers should use protective gloves and clothing to avoid exposure.

#### Safe techniques for handling ODS

Customs officers charged with identifying, handling, transporting, or storing ODS should adhere to the measures established to ensure the officers' safety. A safety checklist appears in Table 4-1.

**Sampling for chemical analysis** If chemical analysis in an accredited laboratory is required—for example, to prepare a court case—a specially trained and authorised technical expert from the government Customs laboratory or other designated laboratories should be consulted. Customs officers should not take samples unless they are trained in such procedures. The situation varies by country. In some, Customs officials are mandated to take samples for laboratory purposes, and some Customs administrations have their own laboratories. Smaller cylinders of a suspected ODS can be transported directly to the laboratory.

#### **Pressurised containers**

Many ODS and their alternatives are stored in pressurised containers (see Table 4-1). A pressurised container is any device or system designed to hold a liquid, gas or vapour at an internal pressure that exceeds the pressure of the surrounding environment. These containers can present a variety of hazards because of their pressure and contents. All pressurised containers must be stored properly in compliance with local regulations. They also must be secured to prevent them from falling. Accidental contact, vibration or earthquakes could cause a container to rupture or explode. Containers must be transported with protective caps in place. And they must never be rolled or dragged. If a cylinder valve cannot be opened, the valve should never be forced.

# Table 4-1 Safety checklist for Customs officers responsible for identifying, handling, transporting or storing for identifying, handling, transporting or storing ODS

#### Do's:

- Do observe local regulations and industry-recommended procedures for the handling, transport and storage of virgin, recovered, recycled or contaminated ODS
- Do use protective clothing, including safety goggles and cold-insulating gloves, when handling refrigerants and halons. Refrigerants and halons can cause frostbite and other damaging effects to the skin and eyes.
- Do equip storage areas with appropriate fi re-extinguishing systems to reduce the risk of fire. CFCs, HCFCs, CTC, methyl bromide and halons are not combustible, but they produce irritating or toxic fumes in a fire.
- Do use electronic leak detectors for refrigerants to inspect storage areas and access valves for leakage.
- Do check the contents of refrigerant cylinders using electronic refrigerant identifiers— but only if trained and authorised to do so under local regulations.
- Do inspect access valves for leaking glands and gaskets. Protective caps should prevent valve damage.
- Do secure storage areas for ODS and ensure that they are only accessible to authorised personnel and protected against theft.
- Do properly label ODS and storage areas and show the appropriate warnings if necessary.

- Do store seized ODS until further legal action determines what will be done with the substances. They should be clearly labelled and safely stored. The "Country Handbook on ODS Regulations and Import/Export Licensing System", available from the country's National Ozone Unit, should detail storage requirements for seized ODS.
- Do disconnect the power supply when inspecting or testing equipment—for example, refrigerators should be unplugged and vehicle motors turned off.
- Do respect local requirements and standards for pressurised vessels with low- and highpressure refrigerants. In many countries, safety inspections are mandatory.
- Do store and transport ODS cylinders carefully in an upright position (the exception is ISO containers) and avoid dropping them.

# Table 4-1 Safety checklist for Customs officers responsible for identifying, handling, transporting or storing for identifying, handling, transporting or storing ODS

### Don't's:

- Do not eat, drink or smoke in storage areas or near ODS or ODS-based products or equipment.
- Do not knowingly vent ODS into the atmosphere. Do not dispose of any ODS by using methods other than the recovery, recycling, reclaim, reuse, adequate storage or approved destruction methods.
- Do not handle or store ODS in confined spaces that lack ventilation because some ODS can accumulate in confined spaces. This accumulation increases the risk of inhalation and may cause unconsciousness or suffocation resulting in death. Use a breathing apparatus if appropriate.
- Do not store pressurised ODS cylinders in direct sunlight or near hot surfaces. A rise in temperature will cause a rise in pressure with the risk of bursting.
- Do not take samples of ODS. This task should be carried out by trained, authorised technicians or personnel of accredited government laboratories.
- Do not use open flames in storage areas or near any refrigeration and air-conditioning system to reduce the risk of fire. Do not use the "halide torch method" (flame test) to test leaks.
- Do not handle chemicals or ODS if you are not trained and familiar with the necessary procedures and safety precautions.

#### **International Chemical Safety Cards**

International Chemical Safety Cards provide important information on the potential risks of ozone-depleting substances, the preventive measures they require and the first-aid measures needed in case of an accident. However, these safety cards may not reflect in all cases the detailed requirements included in national legislation on the subject. The user should verify that the cards comply with the relevant legislation in the country of use. The International Chemical Safety Card for CFC-12 containers is reproduced in Table 4-2. Other safety cards are included in Annex C of this volume or can be found at the website of the

International Occupational Safety and Health Information Centre (CIS) of the International Labor Organisation (ILO)<sup>6</sup>.

Table 4-2 Example of an International Chemical Safety Card Source: International Labor Organisation (ILO) / International Occupational Safety and Health Information Centre (CIS) http://www.ilo.org/legacy/english/protection/safework/cis/products/icsc/dtasht/index.htm

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<sup>6</sup> http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtasht/ index.htm

DICHLO	RODIFLUOROMETHANE		<b>0048</b> March 2002	
CAS No: 75-7' RTECS No: PA UN No: 1028	Difluor           88200000         R 12           CFC 1         CCl <sub>2</sub> F,           Molect         Molect	rodichloromethane 2 jular mass: 120.9		
TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING	
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.	
EXPLOSION			In case of fire: keep cylinder cool by spraying with water.	
EXPOSURE	1			
Inhalation	Cardiac arrhythmia. Confusion. Drowsiness. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.	
Skin	ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Refer for medical attention.	
Eyes	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.	
Ingestion		Do not eat, drink, or smoke during work.		
SPILLAGE DIS	SPOSAL	PACKAGING & LABELLING		
Ventilation.		UN Hazard Class: 2.2	Special insulated cylinder.	
EMERGENCY	RESPONSE	STORAGE		
Transport Eme	rgency Card: TEC (R)-20G2A	Separated from incompatible materials. See Chemical Dangers. Cool. Ventilation along the floor.		
IPCS International Programme on Chemical Safety		Prepared in the conte Programme on Chem SEE IMPORT	t of cooperation between the International ical Safety and the European Commission © IPCS 2002 ANT INFORMATION ON THE BACK.	

0048		DICHLORODIFLUOROMETHANE				
IMPORTANT DATA						
Physical State; Appeara COLOURLESS COMPRE CHARACTERISTIC ODO Physical dangers The gas is heavier than a spaces causing deficiency Chemical dangers On contact with hot surfact decomposes forming toxic chloride ICSC 0163, phos ICSC 0283, carbonyl fluor metals such as zinc and p magnesium and its alloys Occupational exposure TLV: 1000 ppm as TWA A	nce SSED LIQUEFIED GAS, WITH UR. ir and may accumulate in low ceiling y of oxygen. ces or flames this substance c and corrosive gases (hydrogen gene ICSC 0007, hydrogen fluoride ide ICSC 0633). Reacts violently with bowdered aluminium. Attacks limits V4 (ACGIH 2001).	Routes of exposure         The substance can be absorbed into the body by inhalation.         Inhalation risk         On loss of containment this liquid evaporates very quickly displacing the air and causing a serious risk of suffocation when in confined areas.         Effects of short-term exposure         Rapid evaporation of the liquid may cause frostbite. The substance may cause effects on the cardiovascular system and central nervous system, resulting in cardiac disorders and central nervous system depression. Exposure could cause lowering of consciousness. See Notes.				
MAR. 1000 ppm, 5000 mg	лп, тү, с (Б-с 2001).					
Boiling point: -30°C Melting point: -158°C Relative density (water = 7 Solubility in water, g/100 n	PHISICAL P 1): 1.5 nl at 20°C: 0.03	Vapour pressure, kPa at 20°C: 568 Relative vapour density (air = 1): 4.2 Octanol/water partition coefficient as log Pow: 2.16				
	ENVIRONME	ENTAL DATA				
This substance may be ha	zardous to the environment; special atte	ention should be given to its impact on the ozone layer.				
	NO.	TES				
High concentrations in the Check oxygen content bef The odour warning when t Do NOT use in the vicinity Turn leaking cylinder with Freon 12, Frigen 12, Halo	air cause a deficiency of oxygen with th fore entering area. he exposure limit value is exceeded is in of a fire or a hot surface, or during welc the leak up to prevent escape of gas in n 122 are trade names.	ne risk of unconsciousness or death. nsufficient. ling. liquid state.				
	ADDITIONAL I	NFORMATION				
LEGAL NOTICE	Neither the EC nor the IPCS nor an	ny person acting on behalf of the EC or the IPCS is responsible which might be made of this information				
	©IPCS	\$ 2002				

Annex V

# Statistics of SHP Project II

Country	Offices involved	Officers involved	Information exchanged	Physical controls	Seizures / detentions (case no.)	Name of goods	Quantity (tonnes)	Arrests/dete ntions (suspect)	Remark
Note	2. Information exchange: including formatted messages and plain text email exchanged via CENomm, and all other communication with other participating Customs administrations during the whole Project period.     3. Develop approach approach and all other participations are provided by a second during the second d								
	3. Physica	3. Physical controls: number of containers/cylinders physically controlled during Project period.							

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Annex VI (Updated in March 2010)

# **CUSTOMS OFFICER'S QUICK TOOL FOR SCREENING ODS**

#### The most common Ozone Depleting Substances (ODS)

Name/Group	Chemical name	Formula	ASHRAE # for refrigerants only	ASHRAE <sup>1</sup> safety group	CAS <sup>2</sup> #	UN <sup>3</sup> #	HS code
Annex A, Group I (CF	Cs)						
CFC-11	Trichlorofluoromethane	CFCI <sub>3</sub>	R-11	A1	75-69-4	1017	2903.41
CFC-12	Dichlorodifluoromethane	CF <sub>2</sub> Cl <sub>2</sub>	R-12	A1	75-71-8	1028	2903.42
CFC-113	Trichlorotrifluoroethanes	C <sub>2</sub> F <sub>3</sub> CI <sub>3</sub>	R-113	A1	76-13-1		2903.43
CFC-114	Dichlorotetrafluoroethanes	C <sub>2</sub> F <sub>4</sub> Cl <sub>2</sub>	R-114	A1	76-14-2	1958	2903.44
CFC-115	Chloropentafluoroethane	CCIF <sub>2</sub> CF <sub>3</sub>	R-115	A1	76-15-3	1020	2903.44
Annex A, Group II (Ha	alons)						
Halon-1211	Bromochlorodifluromethane	CF <sub>2</sub> BrCl	R-12B1		353-59-3	1974	2903.46
Halon-1301	Bromotrifluromethane	CF <sub>3</sub> Br	R-13B1		75-63-8	1009	2903.46
Halon-2402	Dibromotetrafluroethane	C <sub>2</sub> F <sub>4</sub> Br <sub>2</sub>	R-114B2		124-73-2		2903.46
Annex B, Group I (Ot	her CFCs)	•					
CFC-13	Chlorotrifluoromethane	CF <sub>3</sub> CI	R-13	A1	75-72-9		2903.45
CFC-111	Pentachlorofluoroethane	C <sub>2</sub> FCI <sub>5</sub>	R-111		354-56-3		2903.45
CFC-112	Tetrachlorodifluoroethane	C <sub>2</sub> F <sub>2</sub> Cl <sub>4</sub>	R-112		76-12-0		2903.45
Annex B, Group II		•					
Tetrachlormethane or carb	on tetrachloride	CCI <sub>4</sub>		B1	56-23-5	1864	2903.14
Annex B, Group III							
1,1,1-trichloroethane or me	ethyl chloroform	C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	R-140a		71-55-6	2831	2903.19
Annex C, Group I (HC	CFCs)						
HCFC-22	Chlorodifluoromethane	CHF <sub>2</sub> CI	R-22		75-45-6	1018	2903.49
HCFC-123	Dichlorotrifluoroethanes	C <sub>2</sub> HF <sub>3</sub> Cl <sub>2</sub>	R-123		306-83-2		2903.49
HCFC-124	Chlorotetrafluoroethanes	C <sub>2</sub> HF <sub>4</sub> CI	R-124		2837-89-0		2903.49
HCFC-141	Dichlorofluoroethanes	C <sub>2</sub> H <sub>3</sub> FCl <sub>2</sub>			1717-00-6		2903.49
HCFC-141b	1,1-dichloro-1-fluoroethane	CH <sub>3</sub> CFCl <sub>2</sub>	R-141b		1717-00-6		2903.49
HCFC-142	Chlorodifluoroethanes	C <sub>2</sub> H <sub>3</sub> F <sub>2</sub> CI			75-68-3		2903.49
HCFC-142b	1-chloro-1,1-difluoroethane	CH <sub>3</sub> CF <sub>2</sub> CI	R-142b		75-68-3		2903.49
Annex C, Group I	(HBFCs)	•					
HBFC-22B1	Bromodifluoromethane	CHF <sub>2</sub> Br					2903.49
Annex C. Group I							
Bromochloromethane	_	CH <sub>2</sub> BrCl					2903.49
Annex E. Group					74.00.0	1000	0000.00
Wethyl bromide (or Bromor	methane)				74-83-9	1062	2903.39
R-500	CEC-12 / HEC-152a	erants)	R-500		**		
R-502	HCEC-22 / CEC-115		R-502		**	1973	3824 71
R-401A (MP-39)	HCFC-22/HFC-152a/HCFC-124		R-401A		**		3824.74
R-406A	R-22/R-600a/R-142b (55/04/41	)					3824.74
R-408A (FX 10)	HCFC-22/HFC-143a/HFC-125	•	R-408A		**		3824.74
R-409A (FX 56)	HCFC-22 / HCFC-124/HCFC-1	42b	R-409A		**		3824.74
R-415B	R-22/R-152a (25/75)						3824.74

#### Selected Non-Ozone Depleting Substances<sup>4</sup>

Name/Group	Chemical name	Formula	ASHRAE # for refrigerants only	ASHRAE <sup>1</sup> safety group	CAS <sup>2</sup> #	UN <sup>3</sup> #	HS code
Hydroflourocarbons	(HFCs)						
HFC-134a	1,1,1,2-Tetrafluoroethane	CF <sub>3</sub> CH <sub>2</sub> F	R-134a	A1	811-97-2	3159	2903.39
HFC-152a	1,1-Difluoroethane	CHF <sub>2</sub> CH <sub>3</sub>	R-152a	A2	75-37-6		2903.39
HFC-125	Pentafluoroethane	CF <sub>3</sub> CHF <sub>2</sub>	R-125	A1	354-33-6		2903.39
HFC-143a	1.1.1-trifluoroethane	CF <sub>3</sub> CH <sub>3</sub>	R-143a	A2	420-46-2		2903.39
HFC-32	Difluoromethane	CH <sub>2</sub> F <sub>2</sub>	R-32	A2	75-10-5		2903.39
HFC-23	Trifluoromethane	CHF <sub>3</sub>	R-23	A1	75-46-7		2903.39
HFC-245fa	1,1,1,3,3-Pentafluoropropane	CF <sub>3</sub> CH <sub>2</sub> CHF <sub>2</sub>	R-245fa	A1	460-73-1		2903.39

B1 Higher Toxicity & No Flammability

4 - Their HS codes may be used to disguise ODS

B2 Higher Toxicity & Lower Flammability

B3 Higher Toxicity & Higher Flammability

Name/Group	Chemical name	Formula	ASHRAE # for refrigerants only	ASHRAE <sup>1</sup> safety group	CAS <sup>2</sup> #	UN <sup>3</sup> #	HS code
Hydrofluorocarbons	blends (HFCs)						
R-404A	R143a/125/134a		R-404A	A1/A1	**		3824.78
R-507A	R143a/125		R-507A	A1	**		3824.78
R-407A	R32/125/134a		R-407A	A1/A1	**		3824.78
R-407B	R32/125/134a		R-407B	A1/A1	**		3824.78
R-407C	R32/125/134a		R-407C	A1/A1	**		3824.78
R-410A	R32/125		R-410A	A1/A1	**		3824.78
R-508A	R23/116	R-508A	A1/A1	**		3824.78	
R-508B	R23/116		R-508B	A1/A1	**		3824.78
Halogen-free Refrige	rants						
R-717	Ammonia	NH <sub>3</sub>	R-717	B2	7664-41-7	1005	-2814.10
R-744	Carbon dioxide	CO <sub>2</sub>			124-38-9		2811.21
R-600	Butane	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>			106-97-8		-2901.10
R-600a	Iso-Butane	C <sub>4</sub> H <sub>10</sub>	R-600a	A3	75-28-5	1969	-2901.10
R-290	Propane	C <sub>3</sub> H <sub>8</sub>	R-290	A3	74-98-6	1978	2711.12

1- ASHRAE Safety Groups (ASHRAE: American Society for Heating Refrigeration & Air-conditioning Engineers):

A1 Lower Toxicity & No Flammability

- A2 Lower Toxicity & Lower Flammability
  - A3 Lower Toxicity & Higher Flammability

CAS #: Chemical Abstract Service Number

3- UN #: United Nations Number for some Chemicals

\*\* CAS # for blend is combined of the CAS # of its components

(Example: R-500 CAS # is: 75-71-8 / 75-37-6 which CAS # for both CFC-12 & HFC-152a)

Most popular refrigerants trade names ARCTON - ASAHIFRON - ASAHIKLIN - FORANE - FREON - GENETRON - ISCEON - SOLKANE - SUVA - FLORON DANGER SYMBOLS **Countries that produce ODS** Source: Article 7 data for 2008 reporting year, only countries with positive production figures. Group **Producing Countries** China, India, Republic of Korea, Russian Chlorofluorocarbons (CFCs) **Toxic substances** Flammable substances Federation, Spain, United States of America Halons China, Republic of Korea Carbon tetrachloride (CCI<sub>4</sub>) China, India, Japan, Republic of Korea, Romania Oxidizing substances Explosive substances Methylchloroform (CH<sub>3</sub>CCl<sub>3</sub>) China, Japan, United States of America Argentina, Canada, China, DRP Korea, France, Germany, India, Japan, Mexico, Netherlands, Republic of Korea, Russian Federatior Spain, United Kingdom, United States of America, Venezuela Hydrochlorofluorocarbons (HCFCs) China, Israel, Japan, United States of America Methyl Bromide Corrosive substances Irritating substances HS codes for selected products that may contain ODS (list is not exhaustive) Product HS code/codes Environmentally Hazardous to Health AC systems 8415.10, 8415.20, 8415.81, 8415.83 dangerous substances 8415.90 AC components Refrigerators & Freezers 84.18, 84.19, 85.09 8414.30 Compressors Vehicles CHAPTER 87 Fire Extinguishers 8424.10 Pressurized Gases 3917, 3920, 3921, 3925, 3926 sulating boards & pipe covers Prepolymers 3901 - 3911 Prepared by: Compliance Assistance Programme (CAP) Regional Office for West Asia 6 **United Nations Environment Programme** UNEP Quality reviewed by: Dr. Janusz Kozakiewicz

Annex VII

# Handling of Seized ODS and ODS-containing products and equipment

The information below is taken from chapter 3 (p34-35) of the Training Manual for Customs Officers: Saving the Ozone Layer - Phasing out Ozone Depleting Substances in Developing Countries - Second Edition, produced by UNEP DTIE. The full manual is available from: http://www.unep.fr/ozonaction/information/mmcfiles/6226-e-CTM\_Second\_Edition.pdf?r=3164

National laws and the provisions of the import/export licensing system prescribe what happens to seized ODS or ODS-containing products. The National Ozone Unit (NOU) should be informed of seizures of ODS and decisions taken on what happens to them. The decision matrix in Table 3-1 in the following page presents options for seized ODS and ODS-based products and equipment. The shaded fields indicate the environmentally preferable options. However, the most appropriate option will depend on the country-specific situation and cost. Seized ODS are often simply destroyed. However, destruction can be undertaken using only those technologies approved by the Parties to the Montreal Protocol. The ODS destruction technologies approved by the Parties must fulfil certain requirements concerning the contents of toxic substances in the off-gases (see Table 3-2).

Approved destruction technologies for ODS						
Thermal oxidation	Plasma destruction					
<ul> <li>Liquid injection incineration</li> </ul>	Radio frequency plasma destruction technology					
Reactor cracking	Argon plasma arc (for CFCs, HCFCs and halons)					
Gaseous/fume oxidation	Nitrogen plasma arc, microwave plasma, gas phase catalytic debalogenation and super-beated steam reactor (for CECs and					
Rotary kiln incinerators	HCFCs)					
Cement kilns						
Municipal solid waste incinerator						
(for foams including ODS)						

# Annroved destruction technologies for ODS

The National Ozone Unit (NOU) or Ozone Focal Point in your country should be able to provide information and assistance when dealing with seized ODS. UNEP DTIE OzonAction is also available to provide assistance if necessary, the contact details can be found here: http://www.unep.fr/ozonaction/information/contacts.htm

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Table 5-1 Decision matrix: Handling of Seized ODS and ODS-containing products and equipment							
Table 3-1 : Handling of Seized ODS and ODS-containing products and equipment							
Option	Ozone-depleting substances (e.g., CFC refrigerants, methyl bromide)	Products containing ODS (e.g., aerosol cans, foams, paint)	Equipment containing ODS or whose functioning relies on ODS (e.g., refrigerators, air- conditioners)				
Re-exporting to the country of origin or to any Party that wishes and is entitled to legally import the seized goods	<ul> <li>Cost for re-export to be borne by importer</li> <li>Goods at risk of being smuggled again</li> <li>If auctioning off and disposal are not possible</li> </ul>	Cost for re-export to be borne by importer • Goods at risk of being smuggled again • If disposal is not possible	Cost for re-export to be borne by importer • Equipment at risk of being smuggled again • If retrofitting and disposal are not possible				
Auctioning off to a licensed importer and deducting the quantity from the importer's allowance	If the import of ODS is not banned • Replaces legal imports	If the import of ODS-containing products is not banned • Usually no allowances made for imports of products containing ODS • This option to be avoided	If the import of ODS-based equipment is not banned • Usually no allowances made for imports of equipment based on ODS • Increases the country's dependency on ODS • This option to be avoided				
Mandatory retrofitting of ODS-based equipment by certified service company	Not applicable	Not applicable	Cost of retrofitting to be borne by illegal importer or by licensed importer who bought the equipment from Customs				
Disposal or destruction of the seized goods • Cost to be borne by illegal importer or Customs • Proper waste management practices to be applied	If Montreal Protocol–approved destruction technologies are available • If auctioning off or re-export is not possible	Recover ODS before disposal for re-use or disposal (not possible for paints or foams)	Before disposal recover ODS and other working fluids for re- use or proper disposal • If retrofitting or re-export is not possible				
Long-term storage, an intermediate option that is costly for Customs and requires final solution	If re-export, auctioning or disposal is not possible • This option to be avoided	If re-export, auctioning or disposal is not possible • This option to be avoided	If re-export, auctioning, retrofitting or disposal is not possible • This option to be avoided				

# Table 3-1 Decision matrix: Handling of Spized ODS and ODS containing products and equipment

*Note*: ODS contained in imported products or equipment does not count towards a country's ODS consumption.