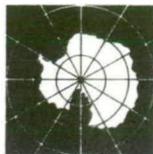


ANTARCTIC TREATY
XVIII th CONSULTATIVE MEETING

TRAITÉ SUR L'ANTARCTIQUE
XVIII éme RÉUNION CONSULTATIVE



KYOTO
11-22 April 1994

TRATADO ANTARTICO
XVIII REUNION CONSULTIVA

ДОГОВОР ОБ АНТАРКТИКЕ
XVIII КОНСУЛЬТАТИВНОЕ СОВЕШАНИЕ

XVIII ATCM/INFO 8

10 April 1994

Original: English

CHECKLISTS USED BY THE UNITED KINGDOM/ITALY/SOUTH KOREA

ANTARCTIC TREATY JOINT INSPECTION TEAM

(Submitted by the United Kingdom)

KOPRI
극지연구소

XVIII ATCM/INFO
11 April 1994
Original: English

CHECKLISTS USED BY THE UNITED KINGDOM/ITALY/SOUTH KOREA
ANTARCTIC TREATY JOINT INSPECTION TEAM
1993

KOPRI
Item 8(d)
(Submitted by the United Kingdom)
극지연구소

CHECKLISTS USED BY THE UK/ITALY/SOUTH KOREA
ANTARCTIC TREATY INSPECTION TEAM
1993

The final report of the XVII Antarctic Treaty Consultative Meeting noted the continued importance of inspections under Article VII of the Antarctic Treaty.

The Meeting considered that there would be value in having an agreed checklist which could be referred to when conducting inspections. This would enhance the quality of inspections and help in comparing inspection reports. The Meeting requested advice from SCAR and COMNAP on the question of checklists (see para 76 of the Report of the XVII ATCM), but did not preclude Consultative Parties from submitting their own views on the matter.

Checklists have already been used by a number of Contracting Parties, including USA (XVI ATCM/INFO 67) and Chile (XVI ATCM/INFO 95).

In 1993 the UK, Italy and South Korea developed three Inspection checklists in advance of their joint Treaty Inspection programme. These checklists addressed permanent stations, abandoned bases and tourist (or other) vessels and included questions on compliance with the requirements of both the Antarctic Treaty and the Protocol on Environmental Protection. The inspectors found the checklist greatly assisted them in their work.

The UK Delegation believes that the checklists drawn up and used by the 1993 UK, Italian and South Korean Inspection Team could be useful to the discussion of the meeting. The three checklists are therefore presented as Annexes to this Information paper.

FOREIGN AND COMMONWEALTH OFFICE
LONDON SW1A 2AH

**CHECKLIST FOR PERMANENT STATIONS IN THE
ANTARCTIC TREATY AREA**



Name of Station:극지연구소.....

Nationality:

1. GENERAL STATION INFORMATION

- 1.1 Name of station visited
- 1.2 Longitude Latitude
- 1.3 Nationality of station
- 1.4 Organisation operating the base
- 1.5 Name of officer in charge of station
- 1.6 Distance to the nearest neighbouring station (km)

2. INSPECTION DETAILS

- 2.1 Date of visit
- 2.2 Time of visit Duration of visit (hrs)

3. SITE DESCRIPTION

- 3.1 Regional setting
- 3.2 History of the station (inc date opened)
- 3.3 Primary aim of the station (logistic, scientific etc)
- 3.4 Nearby physical facilities (eg refuges, field huts) maintained by the station

4. STATION DESCRIPTION

- 4.1 Number of station buildings
- 4.2 Area covered by station (km²)

- 4.3 Age and condition of the buildings
- 4.4 Has there been any recent construction activity? (Y/N)
If Y then a) type of activity
b) area (m²)
- 4.5 Future plans for the station
- 4.6 Ask if the inspection team can have a plan or sketch map of the station layout.

5. PERSONNEL

- 5.1 Number of personnel:
 - a) total number of personnel
 - b) Proportion of military and civilian:
 - c) Number of:
 - scientists/scientific technicians
 - logistic/support personnel
 - others
 - d) Number of stations
 - e) Number in field
- 5.2 Maximum capacity of station
- 5.3 Average number of summering/wintering personnel
- 5.4 Length of tour of personnel
 - a) over-wintering
 - b) summer only

5.5 Do staff undergo training courses, both prior to, and during their stay in Antarctica (safety and survival, first aid, environmental protection) (Y/N)
If Y, then describe

5.6 Do staff undergo medical or other screening?

6. ANTARCTIC TREATY LEGISLATION

6.1 Are you familiar with the provisions of the Antarctic Treaty System? (Y/N)

6.2 Do you hold relevant Antarctic Treaty documentation on the station?

6.3 Has your organisation developed guidelines or a management plan to ensure that station personnel comply with the Antarctic Treaty and the measures agreed under it? (Y/N)
If Y, ask if the inspection team can have a copy of the guidelines or management plan.



7. SCIENTIFIC RESEARCH

7.1 Main scientific programmes supported by the station

7.2 Are there dedicated scientific facilities (computers, laboratories, permanent equipment eg seismographs, met stations). If Y, then type of facilities

7.3 Background of scientists (affiliation, experience)

7.4 The level of international scientific activity at the station

7.5 Foreign scientists (number, nationality, scientific programmes)
.....
.....

7.6 Are radioisotopes used in scientific investigations? (Y/N)
If Y, then describe
.....
.....

8. STATION FACILITIES

8.1 Water supply:

a) How is water supplied and stored (snow melt, pump from water source, distillation, reverse osmosis)?
.....

b) How much is produced (litres/day)?

8.2 Power generation

a) Number, type and capacity (Kw) of generators:
.....

b) Annual fuel consumption (volume)

c) Are heat and energy cogeneration and conservation measures used (thermal insulation)? (Y/N)
If Y, then describe
.....

d) Are alternative energy sources used (wind, solar)? (Y/N) If Y, then describe
.....

e) Are emissions filtered and monitored? (Y/N)
If Y, then how often and by what means
.....

8.3 Hazardous chemicals:

a) Types and quantities of chemicals
.....
.....

b) How are they stored

c) How are hazardous chemicals monitored (marking, inspection, inventory)
.....

8.4 Fuel storage and pumping systems:

- a) Types and amounts of fuel
 - Diesel (litres)
 - Petrol (litres)
 - Aviation fuel (litres)
 - Other (heavy fuel oil) (litres)

- b) Types and capacity of station storage containers
 - Steel tanks (m³)
 - Bladders (m³)
 - Drums (m³)

- c) For what purposes is the fuel used (generators, vehicles, aircraft, refuelling visiting vessels)?
.....
.....

- d) Protection against leaks and spills.
 - Are there double-walled tanks? (Y/N)
If Y, give details (capacity)

 - Are there berms around tanks? (Y/N)
If Y, give details (berm construction and capacity)
.....

 - Is spare fuel storage capacity available in the event of malfunction?

- e) Is there any protection against differential settlement of tanks and piping due to uneven warming of permafrost? (Y/N)

If Y, give details (gravel pads, sealing of ground under tanks, flexible couplings on pipes)
.....

Background information on fuel pipe-work. (Is piping above/below ground, gravity feed or pumped, insulated/heated, isolated by valves (manual or automatic)

- f) Are there field fuel depots? (Y/N)
If Y, give details (number of drums, type of fuel, quantity (litres)

- g) How is bulk fuel transferred (barge and short fuel line, direct pumping from re-supply ship via long fuel line)?

After transfer are fuel lines blown through to empty them? (Y/N). If Y, describe method

h) Are fuel pumping systems and storage tanks monitored? (Y/N). If Y, then how often and by what means?

i) Who is responsible for fuel management?

9. TRANSPORT

9.1 Number and type of ground vehicles

Are there roads within or leading from the station? (Y/N)

If Y, then: a) length (km) b) type (crushed rock, ice) c) comment on usage

9.2 Number and type of small craft

Are there any shipping facilities (jetty)? (Y/N)

If Y, then: a) potential berthing capacity b) type (metal, wood) c) comment of usage

9.3 Number and types of fixed and rotary wing aircraft

9.4 Number of aircraft movements per year a) own operations b) operations of other Treaty Parties

c) other (tourism and NGO) operations
.....

9.5 Are there any landing facilities (airstrips, helipads)?
(Y/N) If Y, then:

a) potential operational capacity (size of aircraft)

b) type (crushed rock, ice)

c) frequency of use

9.6 What is major use of the facilities? (Support of field science, logistics, personnel)

10. RE-SUPPLY

10.1 How often is the station re-supplied (visits/year)?
.....

10.2 How is the re-supply accomplished (sea, air)?
.....

11. COMMUNICATIONS

(a) Are there any new communication facilities not covered by the SCALOP Exchange of Information?
.....
.....

12. FIREARMS/EXPLOSIVES

12.1 Are firearms held on the station? (Y/N)
If Y, then a) number, type and bore

b) for what purposes are they used?.....

c) details of ammunition kept

- 12.2 Are explosives held on the station? (Y/N)
 If Y, then a) amount (kg) and type

 b) for what purposes are they used?

 c) details if storage

13. MILITARY SUPPORT ACTIVITIES

- 13.1 Do the military services provide support in any way to the station? (Y/N)
 If Y, then describe

14. EMERGENCY RESPONSE CAPABILITY

14.1 Medical facilities

- a) Is there an evacuation plan for medical emergencies? (Y/N)
 If Y, ask if the inspection team can have a copy.
- b) Does the station have a medical surgery? (Y/N)
 If Y, give details
- c) Is a doctor permanently on the station? (Y/N)
- d) Could the station provide assistance (personnel, equipment) in the event of a medical emergency nearby? (Y/N). If Y, what could be provided

14.2 Fire

- a) Is there a fire emergency plan? (Y/N)
 If Y, ask if the inspection team can have a copy.
- b) Does the station have equipment to deal with a fire (extinguishers, sprinkler system, breathing apparatus)? (Y/N)
 If Y, give details:.....
- c) Are personnel trained in fire fighting? (Y/N)
 If Y, give details:.....

- d) Are fire fighting exercises carried out on the station? (Y/N)
If Y, how often (exercises/year)?:.....

14.3

Pollution (oil and chemical spills)

- a) Is there an oil and chemical spill contingency plan? (Y/N). If so, how often is it updated? If Y, ask if the inspection team can have a copy.
- b) Does the station have equipment and materials to deal with a pollution incident (pumps, booms, absorbents)? (Y/N).
If Y, give details:.....
- c) Are personnel trained to deal with fuel and chemical spills? (Y/N).
If Y, give details:.....
- d) Are pollution control training exercises carried out by the station? (Y/N).
If Y, how often (exercises/year)?:.....
- e) Could the station provide assistance (personnel, equipment) in the event of a pollution incident nearby? (Y/N).
If Y, what could be provided?.....

14.4

Have there been any incidents in the last year resulting in significant damage to station facilities or to the environment (fires, oil spills)? (Y/N).

If Y, then what and when?.....

Are incidents reported (fires, oil spills)? (Y/N).

If Y, describe reporting mechanism:.....

15. WASTE MANAGEMENT

15.1

Does the station have a waste management plan for the separation, reduction, collection, storage and disposal of wastes (paper, plastic, glass, metals, chemicals)? (Y/N).
If Y, can a copy be made available to the inspection team.

15.2

- a) Is training provided on the need to minimise the impact of wastes on the environment?:.....
- b) Are there any notices publicly displayed concerning waste management?:.....

15.3

How do you dispose of:

- a) Radioactive materials?.....
- b) Electrical batteries?.....
- c) Fuel (both liquid and solid) and lubricants?.....
- d) Wastes containing harmful levels of heavy metals or acutely toxic or harmful persistent compounds (hazardous waste, chemicals)?.....
- e) PVC, polyurethane and polystyrene foam, and rubber?.....
- f) Other plastics?.....
- g) Treated wood?.....
- h) Fuel drums?.....
- i) Other solid, non-combustible wastes?.....
- j) Residues of carcasses of imported animals?.....
- k) Laboratory cultures of micro-organisms and plant pathogens?.....
- l) Introduced avian products?.....
- m) Sewage and greywater?.....
- n) Waste produced by field parties?.....

15.4

Current and past waste disposal techniques:

- a) Landfill or to an ice pit? (Y/N).
If Y, then describe:.....
 - b) Sea/ice discharge? (Y/N).
If Y, then describe:.....
- Is effluent (sewage, greywater) treated and monitored? (Y/N). If Y, then describe:.....
- c) Open burning? (Y/N).
If Y, then describe:.....

What do you do with the ash?.....
.....

What alternatives to open burning will be introduced
by 1998/99?.....
.....

d) High temperature incineration? (Y/N).
If Y, then describe:.....
.....

Are emissions controlled or monitored? (Y/N).
If Y, then describe:.....
What do you do with the ash?.....
.....

e) Removal to another Antarctic station? (Y/N).
If Y, then describe (name of station):.....
.....

f) Removal from the Treaty Area? (Y/N).
If Y, then describe:.....
.....

Where is the final destination of the waste and how is
it finally disposed of?.....
.....

How much is returned each year?
Solid (kgs):.....
Liquid (litres):.....

g) Are any wastes recycled? (Y/N).
If Y, then describe:.....
.....

15.5 Who is in charge of waste management on the station?
.....
.....

15.6 Is an annual waste management plan prepared? (Y/N).
If Y, then describe:.....
.....

15.7 Has an inventory of the locations of past activities
(abandoned bases, lost fuel depots) been prepared? (Y/N).
If Y, then describe:.....
.....

15.8 Are past activities being, or prepared to be, cleaned up?
(Y/N).
If Y, then describe clean-up programme:.....
.....
.....

16. ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

16.1 Has an EIA been prepared for the station or associated structure or activity (e.g. new laboratory)? (Y/N).
If Y, then may the inspection team have a copy?

16.2 Are EIAs planned for the station or for future activities?
(Y/N).
If Y, then describe:.....
.....
.....

16.3 Are you monitoring the environmental impact of the station or associated activities in any way? (Y/N).
If Y, then describe:.....
.....
.....

16.4 What key environmental indicators are you monitoring (sediment, plants, penguins) to assess environmental impact?
a)
b)
c)

17. CONSERVATION OF FLORA AND FAUNA

17.1 Are base personnel made aware of the rules relating to the conservation of Antarctic wildlife and protected areas?
(Y/N).
If Y, ask if the inspection team can have a copy.

17.2 Have any native mammals or birds been killed, injured, captured, handled, molested or disturbed? (Y/N).
If Y, then describe:.....
.....
.....

Were permits issued? (Y/N). For what reasons?.....
.....
.....

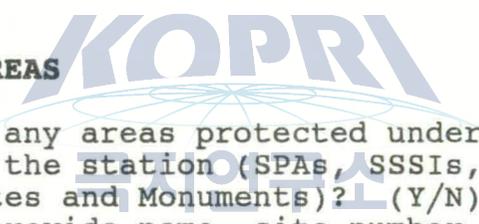
17.3 Has there been a significant impact on plants and animals
in the vicinity of the base?
.....
.....

Were permits issued? (Y/N). For what reasons?.....
.....
.....

Are alien species or animals present? (Pets or ornamental
plants)? (Y/N).
If Y, are they the subject of permits?.....
.....

17.4 Are there important wildlife or plant sites nearby (penguin
and seal colonies, moss banks)? (Y/N).
If Y, then describe:.....
.....
.....

18. PROTECTED AREAS



18.1 Do you have any areas protected under the Antarctic Treaty
System near the station (SPAs, SSSIs, ASPAs, ASMAs,
Historic Sites and Monuments)? (Y/N).
If Y, then provide name, site number and distance from
station (km):.....
.....
.....
.....

Do you have copies of the relevant management plans?
(Y/N).

Do you have maps of protected areas nearby? (Y/N).

18.2 Have base personnel entered protected areas within the past
year? (Y/N).
Were permits issued? (Y/N). For what reasons?.....
.....
.....

18.3 Have you had any problems with station personnel or
visitors observing the restrictions of protected areas?
(Y/N).
If Y, then describe:.....
.....

18.4 Are the boundaries of protected areas marked? (Y/N).
If Y, then how?.....
.....
.....

18.5 Has any monitoring or management of nearby protected areas
been carried out? (Y/N).
If Y, then describe:.....
.....
.....

19. TOURISM

19.1 Do you have visits from tourists or non-governmental
expeditions? (Y/N).
If Y, how many a) people per year?.....
b) cruise ships per year?.....
c) yachts per year?.....
d) aircraft per year?.....

19.2 Has your organisation developed procedures to deal with
tourist visits? (Y/N).
If Y, ask if the inspection team can have a copy of the
procedures.

19.3 Have tourists caused any operational problems for the
station or had an environmental impact? (Y/N).
If Y, then describe:.....
.....
.....

20. FURTHER NOTES

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

CHECKLIST FOR ABANDONED BASES

- Name of base? Location?
- What is nationality of abandoned base/installation?
- Date abandoned (if known).
- Description of facilities present (No, size buildings, fuel storage, jetties etc).
- Any evidence of clean-up, the removal of structures or reinstatement activities. Presence of notices warning of hazards?
- What is the physical condition of buildings/ installations? Are they secured? Could the base be used as an emergency refuge? Any food supplies? Do the buildings constitute a hazard to people or wildlife? Are they likely to in the near future? Does wildlife locally appear impacted?
- Has the site been colonised by wildlife (species, numbers)?
- Is there any evidence of fuels, chemicals still held at the base? What quantities (estimates) and types of fuel? What is the condition of fuel storage? Is it exposed to the elements or under cover? Is there any sign of fuel/chemical leakage?
- Are there any rubbish dumps or empty fuel drums? What types of waste? What condition? What quantities (estimates)?

- Is there evidence that the site is, or has been, visited by tourist or NGO groups?
- Are there signs of vandalism, theft?
- Are there any Antarctic protected areas within or near the abandoned base area?
- Does the base, or nearby area, contain any notable historic artefacts (eg 1940s/50s ration boxes, skis, sledges)?



CHECKLIST FOR TOURIST (OR OTHER) VESSELS

1. An Inspection should bear in mind that:
 - only a vessel flying the flag of a Treaty Party can be inspected (or any other vessel with the consent of its owner);
 - and then only under the conditions of Article VII(3) of the Antarctic Treaty, viz 'at points of discharging or embarking cargoes or personnel ...'. Inspections of vessels on the High Seas or whilst underway is not permitted under the Treaty.

2. An Inspection should concentrate on three aspects:-
 - (a) observance of wildlife and Protected Areas regulation;
 - (b) waste disposal;
 - (c) prevention of marine pollution.

Information will need to be collected from a number of personnel key amongst whom may be the Ship's Master (general information), Tour Leader (item a), First Officer (item b) and Chief Engineer (item c).

3. **General Information - Interview Ship's Master**

Name of vessel, port/nationality of Registration, owner and address (and/or authority contracted to), age of vessel, basic dimensions (l o a, breadth, draught, gross tonnage), propulsion type (eg diesel electric) whether single/twin screw, bow/stern thrusters, whether ice strengthened, marine classification, navigational and other equipment held (GPS, radar, navtex, satellite

weather/ice imagery) presence, number and standard of Zodiacs and other small craft, presence/type/age of helicopter(s);

Name/nationality of Captain, number/nationality of crew, maximum carrying capacity (visitors), number of visitors at time of inspection, number of cruises undertaken/planned that season, length of operating period in Antarctica. Area of operation, limitations on operation (eg by geographical extent, ice conditions).

- Are the expedition leaders, guides, officers and crew qualified, well-trained and experienced? [IAATO recommend that at least 75% of officers and crew have Antarctic experience.]
- How many visits made to research stations each season? Number and nationality of stations? How are visits arranged (before cruise by fax/letter, during cruise by radio)? [IAATO recommend 72 hours advance notice and a 24-hour advance final confirmation to stations.]
- Have any problems been encountered during such visits?
- Whether there exists an emergency response plan and if so what back up is provided?
- Does the vessel have insurance in case of an emergency? If so, how is the insurance arranged and for what amount?
- Ice/Antarctic experience of crew/officers. Is an 'ice pilot' carried? Is training given to crew/tourists on Antarctic conditions (safety, life-boat drills)?

- Does the vessel carry adequate and up to date hydrographic charts?

- Has an EIA been prepared for the vessel's activities? If so, ask for a copy.

- Does the vessel/tour organiser report to the Governments whose stations they have visited, after completion of the tour cruise? If so, what information is provided?

- Is the tour organiser/ship owner a member of the International Association of Antarctic Tour Operators (IAATO)?



(a) Wildlife and Protected Areas - Interview tour leader

- Are crew/tourists made aware of regulations of Antarctic Treaty system (Treaty, Agreed Measures and Environmental Protocol) - concerning wildlife conservation, Protected Areas and environmental sensitivity generally?
- In what form is this advice provided (lectures, literature, on site, other)?
- Is relevant Treaty documentation carried by the vessel?
- Is vessel aware of the location, boundary, management plans and regulations of Protected Areas (SPAs, SSSIs etc)?
- Is tour operator aware of the Codes of Guidance prepared by the Antarctic Treaty Parties, COMNAP and SCAR? Are these followed? Has operator prepared its own Code of guidance (if so, obtain copy)? Are the IAATO guidelines of Conduct for Antarctic Visitors used?
- Does the operator invoke any other form of regulation over tourists/crew (eg standards of US domestic law - US Antarctic Conservation Act of 1978)?
- Does vessel carry tour guides, if so, how many? What is the ratio of guides to visitors/crew? Are the IAATO guidelines of 1 qualified tour guide to every 20 to 25 passengers followed?
- What criteria are used for selecting guides? (Do they require to have experience of Antarctic conditions, conversant with Antarctic wildlife and conservation and Treaty law, ability in inflatable boat handling)?

- Does tour operator provide training to guides in such matters? If so, what form does this training take (lectures, 'hands-on' training, literature)?
- How many visits to wildlife sites/stations are made per cruise?
- What is the usual duration of such visits?
- How many personnel are allowed ashore at each visit (particularly to wildlife sites)?; what is the ratio of guides to tourists/crew during visits ashore? Are the IAATO guidelines of a maximum of 100 passengers ashore at a time followed?
- How does operator ensure minimum impact of tourists on such wildlife sites?
- Is there any evidence of infractions by tour operator, tourists or crew against Treaty regulations?
- Are any special precautions taken to prevent the vessel from accidentally introducing alien species to the Antarctic (animals, plants, insects, bacteria)?
- Are tourists/crew told not to damage or tamper with historic monuments, refuges, scientific markers and equipment?

(b) **Waste Management and Disposal - Interview First Officer**

- Does the vessel have a waste management plan for the separation, reduction, collection, storage and disposal of wastes (paper, plastic, glass, metals, chemicals)? If so, obtain a copy.
- Is there a designated waste management officer/member of crew?

- How are liquid, combustible and non-combustible wastes dealt with?

- How do you dispose of:

- a) Radioactive materials?
- b) Electrical batteries?
- c) Fuel (both liquid and solid) and lubricants?
.....
- d) Wastes containing harmful levels of heavy metals or acutely toxic or harmful persistent compounds (hazardous waste, chemicals)?
.....
- e) PVC, polyurethane and polystyrene foam, and rubber?
- f) Other plastics?
- g) Treated wood?
- h) Fuel drums?
- i) Other solid, non-combustible wastes?
-
- j) Residues of carcasses of imported animals?
.....
- k) Laboratory cultures of micro-organisms and plant pathogens?
- l) Introduced avian products?
-

m) Sewage and greywater?

n) Waste produced by field parties?

- Is effluent (sewage, greywater) treated and monitored (amounts recorded)? If so, what type of sewage treatment plant is used? Does the vessel keep a sewage record book? Does vessel employ a comminutor for food wastes? What is the storage capacity (cubic m and average holding time) for food wastes, greywater and sewage? How are food wastes which are difficult to comminute (large boxes, fish skins) disposed of?

- Is the vessel aware of the Protocol and MARPOL Regulations concerning the discharge of food wastes and sewage (see Articles 5(3) and 6(1) of Annex IV). [Comminuted food waste and untreated raw sewage are prohibited from being disposed of within 12 nautical miles of shore.]

- Does the vessel have a compactor and/or shredder? How is shredded or compacted waste stored on board?

- Does the vessel have an incinerator? If so, obtain details - single/twin stage incineration, operating temperature, amount combusted (kg/day)? Are emissions monitored? If so, how and when? What happens to the ash?

- Where is material removed from the Antarctic Treaty Area taken to? Where and how is it finally disposed of? Does the vessel/operator have a formal contract with a port reception facility? Are any wastes recycled?

- How much is retrograded (tonnes or cubic capacity) of solids and liquid?

- Is advice provided to crew and tourists on the need to minimise the impact of wastes on the environment (both whilst on vessel and whilst ashore)?
- Are there any notices publicly displayed concerning waste management?

(c) **Prevention of oil pollution - Interview Chief Engineer**

- What quantities and types of fuel are carried?
- Is bulk fuel in double-walled tanks? Can fuel be transferred from tanks in the event of an incident to empty tanks?
- Does the vessel have an oil spill contingency plan?; how up to date is it?; how often is it revised? Obtain a copy if possible.
- Does the vessel carry oil pollution equipment and materials to deal with a pollution incident (booms, pumps, absorbents)?
- Is there a dedicated fuel management/pollution officer or crew member?
- Are officers/crew trained to deal with oil pollution incidents? Are training exercises held?
- Is the vessel aware of the oil prevention measures of the Environmental Protocol? Is the vessel flagged with a signatory State to MARPOL? Is the vessel aware of the IMO Special Area provisions for Antarctica?
- Where does the vessel discharge its oily residues (sludge, contaminated bilge water etc)? Does the vessel have a formal contract with a port reception facility outside the Antarctic Treaty area?

- Does the vessel have adequate tank capacity to retain on board all oil residues etc whilst in the Treaty Area?
- Does the vessel keep an Oil Record Book? How often is it updated?

