CHAPTER 6

PLUME COUNTERMEASURES: EVACUATION, SHELTERING AND THYROID BLOCKING

Introduction

6.1 The principal countermeasures against plume exposure pathways are evacuation, sheltering and thyroid blocking -

(a) Evacuation

Evacuation is one of the most commonly considered urgent protective actions for people located in close proximity in the event of nuclear or radiological emergency. Timely evacuation can prevent exposures via all possible exposure pathways against all types of radioactive substances by removing individuals from the proximity of the emergency. However, evacuation may be dangerous for special groups in the population, such as non-ambulatory patients, elderly and disabled. Logistic challenges may be faced under adverse weather or traffic conditions.

(b) Sheltering

Sheltering can also provide effective protection against exposure via major exposure pathways in suitable circumstances. For example, evacuation and thyroid blocking measures may not be practicable during inclement weather such as rainstorm, especially for vulnerable groups of the population. Rapid approach and passage of the plume may also be countered by immediate sheltering. Sheltering is relatively easier to implement but the protection is not total and cannot be sustained over long periods of time. General guidelines for sheltering can be found at Annex 6.1.

(c) Thyroid Blocking

Radioactive iodine is among the most common fission products released in a nuclear accident. People in close vicinity to the accident site and emergency responders may be exposed to significant levels of radioactive iodine. Infants and young children are the more susceptible groups. Thyroid blocking agent, taken before the arrival of the plume or within a few hours of the arrival
of the plume, can effectively block the thyroid gland’s uptake of radioactive iodine and so reduce the risk of thyroid cancer.

The Government has stockpiled thyroid blocking agent for emergency use. If needed, the Government will give announcements, distribute the thyroid blocking agent for use by specific groups of the public and provide usage instructions.

DH has provided general guidelines on thyroid blocking at Annex 6.2.

6.2 The taking of the above countermeasures should be based on the Generic Criteria promulgated by IAEA as set out in Annex 1.4 (relevant parts reproduced in Annex 6.3).

20 km Emergency Planning Zone 1 (EPZ1)

6.3 The DBCP provides for the possible taking of plume exposure pathway countermeasures in the 20 km EPZ1 on a detailed planning basis, covering Ping Chau at about 12 km from the GNPS/LNPS and the Hong Kong waters of Mirs Bay within 20 km of the GNPS/LNPS. Given the difficulties of access and the closeness of the area to the GNPS/LNPS, evacuation of Ping Chau will be considered as a priority precautionary measure at the PARTIAL or FULL ACTIVATION level, corresponding to the conditions of site emergency or off-site emergency at the GNPS/LNPS. The decision on when to evacuate will be made by S for S in consultation with ITF, on advice of HKOMAC, DH, EMSD and HKPF. Operational command of the preparations for evacuation and the evacuation itself will be led by HKPF.

6.4 Ping Chau has a permanent population of less than 10. It is part of the Tai Po District and an extension to the Plover Cove (Extension) Country Park. On summer weekends and at holiday periods, several hundred people may be on the island. The maximum recorded is 1800. The 24-hour Police Post on Ping Chau will look after the residents and visitors on the island. One of the twelve stations of the HKO’s Radiation Monitoring Network is located in Ping Chau which continually sends data to HKO (see Chapter 4). A map of the island is at Annex 6.4.
Objective

6.5 To effect a timely evacuation of Ping Chau and Mirs Bay, and other appropriate countermeasures, such that the radiological impact to evacuees, and to persons assisting them by possible radioactive releases during nuclear emergencies is minimised.

Alerting System

6.6 The alerting system for the DBCP is described in Chapter 3. The specific alerting system for countermeasures in EPZ1 is at Annex 6.5.

6.7 The activation of the DBCP at either PARTIAL or FULL ACTIVATION levels will automatically trigger preparations to be made to evacuate Ping Chau and Mirs Bay. There will be no separate notification of departments with responsibilities under this chapter to prepare for the evacuation.

6.8 At PARTIAL or FULL ACTIVATION level, Police Headquarters Command & Control Centre (PHQCCC) will immediately notify Marine Regional Command & Control Centre (MAR RCCC) which in turn will immediately notify Marine Outer Waters District and the Police Post on Ping Chau which will then make preparation for evacuation. PHQCCC will keep departments promptly informed of the developing situation (particularly of the numbers of people on Ping Chau) and make specific requests. These departments should in turn keep PHQCCC informed of their readiness to respond. The Police Liaison Officer in EMSC should keep EMSC controller fully apprised of the situation and provide estimates of the time at which evacuation could begin and the duration of the evacuation (for guidance see Annex 6.6).

6.9 The decision to evacuate Ping Chau will be notified using the alerting chart at Annex 6.5, which is also applicable to sheltering at Ping Chau (paragraph 6.24) and evacuation of Mirs Bay (paragraph 6.27).

6.10 The decision to evacuate Ping Chau, together with the reasons, should be communicated promptly by EMSC to the Guangdong authorities to forestall panic there. The Guangdong coast opposite is within the Guangdong outer zone for plume emergency countermeasures (sheltering only).

Public Information

6.11 ISD will coordinate publicity on the arrangements for EPZ1 as set out in Chapter 5. The prime concern of the publicity is to stress that the arrangements are precautionary and there is no need for action elsewhere. Police officers will display prominently notices, provided by AFCD, at
appropriate ferry landing piers concerning the closure of the country park at Ping Chau.

Assessment of Countermeasures

6.12 HKOMAC, in consultation with DH and EMSD, will evaluate the radiological and meteorological situation to determine whether evacuation or sheltering (which may be followed by evacuation after the plume is passed) will result in lesser radiation dose, and will accordingly advise S for S’ ITF through EMSC. In particular, DH will advise on the possible impact of the plume on human health.

6.13 In most cases when this plan is implemented early, it should be possible to evacuate people as a purely precautionary move without them receiving any significant radiation dose. In certain circumstances, it may not be necessary to evacuate people at all.

6.14 Bad weather in Mirs Bay could delay evacuation. HKO will advise HKPF on meteorological and sea conditions there. PHQCCC, after consulting MAR RCCC, will advise EMSC and HKOMAC if the weather or sea conditions may present difficulties in evacuation. If there are such difficulties, HKOMAC (with DH) will advise on the need for sheltering.

6.15 Based on the assessment of the projected radiation doses to thyroid, DH will advise EMSC on the need for thyroid blocking by people on Ping Chau, in Mirs Bay and those who are involved in implementing evacuation or sheltering there. Thyroid blocking agents are kept on Ping Chau and on police vessels. EMSC will relay this advice to the organisations concerned - PHQCCC, AFCD and GFS.

Preparations for Countermeasures on Ping Chau

6.16 Police officers on Ping Chau will inform MAR RCCC of the estimated numbers of persons on the island. They will sound a siren to alert people on the island to assemble at one or more of the designated places -

(a) Ping Chau Police Post;
(b) the ex-military camp adjacent to the Police Post; and
(c) AFCD office next to Lam Uk.

6.17 The assembly will facilitate the orderly evacuation of the island or, if this is not immediately possible, sheltering. There is no requirement for people to shelter inside these buildings unless it is ordered.

6.18 PHQCCC will consider the resources required to evacuate the island. Dependent upon the numbers, people can be evacuated using GFS.
helicopters; Marine Police resources; other government fleet resources (e.g. C&ED launch); private resources (e.g. Tung Ping Chau – Ma Liu Shui kaito ferry operator), the use of which will be coordinated with the assistance of the Marine Department (MD) and Transport Department (TD) (and EMSC, if appropriate); or a combination of the above.

6.19 PHQCCC will inform departments what resources may be required. GFS helicopters should be placed on standby and Marine Police resources brought to the edge of the EPZ to await the order to commence evacuation. If necessary, FSD’s assistance will be summoned for rescue operations. If there are a large number of people on the island, Police Tactical Unit (PTU) may standby for crowd control duties there. They would be transported to the island by GFS helicopters once the order to evacuate was given. Approximate times to effect evacuation are given at Annex 6.6.

6.20 Departmental Radiological Protection Officers (DRPOs) will advise on precautionary measures required, if any, for persons taking part in the evacuation.

6.21 PHQCCC will determine which evacuation discharge points will be used. The designated ones, together with land transportation requirements, are -

<table>
<thead>
<tr>
<th>Evacuees</th>
<th>Evacuation Discharge Points</th>
<th>Transport to public transport facilities</th>
<th>Transport to Monitoring Centres (if needed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helicopter evacuation</td>
<td>Sai Kung Marine Police Base (Helipad – IS 05)</td>
<td>Sai Kung</td>
<td>Sai Kung Swimming Pool</td>
</tr>
<tr>
<td>Marine evacuation of Ping Chau</td>
<td>Sha Tau Kok Pier Ma Liu Shui Pier</td>
<td>Sha Tau Kok Shatin</td>
<td>Tai Po Swimming Pool Shatin Jockey Club Swimming Pool</td>
</tr>
<tr>
<td>Evacuation of Mirs Bay</td>
<td>Southwest of Lamma Island (2 - see notes)</td>
<td>-</td>
<td>Chai Wan Swimming Pool Pao Yue Kong Swimming Pool Kwun Tong Swimming Pool</td>
</tr>
</tbody>
</table>

Notes

1 Mobile Monitoring Centres (MCs) may be set up at discharge points, obviating the need for transporting people to elsewhere. If swimming pools are needed, EMSC will determine which ones to open (see Chapter 8). For winter arrangements, see Annex 8.1.

2 PHQCCC, with the assistance of EMSC if requested, will arrange sea transport to convey evacuees to a discharge point on Hong Kong Island and coordinate with GLD and TD arrangements to ensure sufficient land transport. PHQCCC will advise AMS and CAS if assistance is required for screening/marshalling evacuees at the discharge points.
6.22 PHQCCC will keep Fire Services Communications Centre (FSCC), AMS and CAS informed of the number of evacuees who could be set down at each evacuation discharge point. This will facilitate their planning for radiation monitoring and the setting up of MCs, which may be needed if evacuees from Ping Chau or Mirs Bay may be contaminated. The decision will be made by EMSC (see Chapter 8).

Evacuation of Ping Chau

6.23 Once the decision of evacuation is made, PHQCCC will inform departments (paragraph 6.9 above and Annex 6.5) and oversee the immediate execution. Priority should be given to pregnant women, young children, the disabled, the old and their helpers. Radiation readings, if any, taken by Police vessels will be reported to MAR RCCC for transmission to HKOMAC for assessment. PHQCCC will report progress on the evacuation to EMSC on an hourly basis or as required.

Sheltering onPing Chau

6.24 S for S, in consultation with ITF, will decide whether to implement and when to cease temporary sheltering on Ping Chau based on advice from HKOMAC described in paragraph 6.12 above and taking into account practical difficulties in effecting immediate evacuation. Sheltering would only likely to be ordered at the FULL ACTIVATION level.

6.25 Once the decision is made, PHQCCC will inform departments accordingly (paragraph 6.9 above and Annex 6.5). Sheltering will take place at the designated locations described in paragraph 6.16 where the people have assembled. Police officers will ensure windows and doors are closed and the external ventilation systems and air exchange setting of air conditioners are switched off. DH will advise on any further precautionary measures which may be required.

6.26 After the passage of the plume, S for S, in consultation with HKO, DH, EMSD and other members of ITF, will advise PHQCCC whether or not to proceed with the evacuation as described in paragraph 6.23 above.

Evacuation of Mirs Bay

6.27 This evacuation will be executed immediately once the order to evacuate or shelter on Ping Chau is given by S for S in consultation with ITF. Detailed instructions for this evacuation are contained in each department's contingency plan. In outline, PHQCCC will initiate action to notify vessels within the EPZI in Mirs Bay to leave the area and to inform them of other action they should take. MD will arrange for appropriate radio messages to be broadcast through the Maritime Rescue Coordination Centre and provide a copy
for ISD to prepare media announcements. Government vessels in the area (from HKPF, MD, C&ED, etc.) will inform vessels directly using PA equipment. PHQCCC will direct the deployment of government vessels (from HKPF, MD, etc.) at the southern end of Mirs Bay to alert vessels not to enter EPZI.

6.28 If radiation monitoring of vessels is required, EMSC will decide on the need for scanning arrangements and the opening of MCs (see paragraphs 6.12, 6.21 and Chapter 8). If needed, Police and other government vessels will direct evacuated vessels to the anchorage point at the southwest of Lamma Island for monitoring. For vessels arriving from Guangdong or elsewhere through EPZI, Immigration and Customs clearance will be performed there.

**Plume Countermeasures elsewhere in Hong Kong**

6.29 Based on latest risk assessment (Chapter 1), plume countermeasures should not be required elsewhere in Hong Kong outside EPZ1 as the distance is such that the relevant Generic Criteria for countermeasures (paragraph 6.2 above) is highly unlikely to be exceeded in an accident at the GNPS/LNPS. Nevertheless, detailed planning of countermeasures within EPZ1 would provide a useful basis in expanding the scope of application as appropriate should circumstances so warrant.

6.30 As illustration, CESG (or S for S with the support of ITF), taking into account advice of HKOMAC, DH and EMSD, may consider the following measures as necessary –

(a) Appropriate advice may be given to the general public to stay indoors where possible during the passage of a plume across the territory, even when the projected dose is below the relevant Generic Criteria accepted for evacuation or sheltering. Generally speaking, the passage of a plume may last for few hours or more, depending on the meteorological conditions and the magnitude of the radiological release.

(b) DH may advise EMSC on the need of the public or a part of it to undertake thyroid blocking based on scientific evidence at the time and the relevant Generic Criteria (Annex 6.3). EMSC will oversee appropriate distribution arrangements. DH is responsible for the stockpiling of sufficient amount of thyroid blocking agent for this purpose and advises on related storage and management.
Annex 6.1

General Guidelines on Sheltering in a Nuclear Emergency

Sheltering, i.e. staying in a house or building with windows and doors closed and outside air vents shut, can be an effective emergency response to a radiological release. Because of wind and other weather conditions, a plume arising from a brief release of radioactive substances could pass through the area very quickly. In that situation, sheltering would provide the best protection.

2. Sheltering may also be the preferred action in cases where bad weather, for example a rainstorm, prevents efficient evacuation. You might be told to shelter only until the weather conditions allow the evacuation could be effected.

3. If you are instructed to remain indoors because of a nuclear emergency, you should -

- Keep family and pets inside.
- Close all windows and doors.
- Turn off heaters, air exchange setting of air conditioners and any other air exchange ventilation systems.
- Listen to radio and TV or visit Daya Bay Contingency Plan website for emergency information.
- Avoid using telephones, including cell phones, to prevent overloading the system and interfering with emergency use.
Annex 6.2

Administration of Thyroid Blocking Agent

This document is for emergency response personnel who need to perform rescue operations under the radioactive plume; and for specific groups of people in close vicinity to the accident site who are advised by the Government to take thyroid blocking agents in the very unlikely event of nuclear accidents.

Purpose for using thyroid blocking agent

In the very unlikely event of a nuclear accident affecting Hong Kong, radioactive substances, including isotopes of iodine may be released into the air (the plume). Radioactive iodine deposited on one’s skin and clothing (external exposure) can be removed by washing with water and soap, by taking off the external clothing or by wiping or blotting with paper towel.

2. If the radioactive iodine is inhaled (internal exposure), it will be taken up and accumulated by the thyroid gland, leading to an increased risk of thyroid cancer, particularly in children. Taking a thyroid blocking agent closely before or as soon as exposure begins can block the thyroid gland and reduce accumulation of radioactive iodine in the thyroid.

3. A thyroid blocking agent does not protect against any other types of radioactive substances released. It does not protect against external radiation. It is not a radiation antidote.

4. A thyroid blocking agent is stable iodine which can be used either as potassium iodide (KI) or potassium iodate (KIO₃). Each tablet contains the recommended daily dose of iodine for adult for maximum protection of the thyroid gland. KI is the preferred alternative, since KIO₃ has the disadvantage of being a stronger intestinal irritant.

When to take the tablet

5. The use of thyroid blocking agent is entirely voluntary. When accident conditions warrant it, advice to take thyroid blocking agent will be given by the Government through the Emergency Monitoring and Support Centre (EMSC), on the advice by the Director of Health (DH).

6. Thyroid blocking agents are available for distribution on the advice of the Government, to emergency responders who need to perform rescue operations under the plume; to evacuees from Ping Chau and Mirs Bay; and to people under the radioactive plume in the very unlikely event of a nuclear accident.
7. In view of the possible side effects people should only take the tablet when advised by the Government. The tablet should only be taken after reading and fully understanding the directions given on the information card.

8. It should be taken as soon as possible after the Government advises you or your department of the need to do so.

9. Take only one single dose. More doses will not offer additional protection. Larger doses will increase the risk of side effects.

Who should NOT take the tablet

10. People with the following medical conditions should NOT take the tablet:
    (a) known iodine sensitivity;
    (b) previously treated for active thyroid diseases (including goitres and auto-immune thyroid disease) because of an increased risk of relapse of thyrotoxicosis that may require definitive treatment;
    (c) hypocomplementemic vasculitis;
    (d) dermatitis herpetiformis;
    (e) myotonia congenital.

Drug Description

11. KI is a white round flat tablet. Each tablet of KI contains 130 mg of potassium iodide.

Dose

12. It is important that children, pregnant women or breastfeeding women take the tablet when advised by the Government. This is because the fetus and the young children are particularly sensitive to the effects of radioactive iodine.

13. A single dose is sufficient. This is adequate to protect from inhaled radioactive iodine present in a passing plume.

14. The dose level depends on the age. For infants, be precise and accurate with the dose level of KI given. Follow the regimen and instruction below:

<table>
<thead>
<tr>
<th>Age</th>
<th>Dose Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;12 years - Adults</td>
<td>1 tablet per day</td>
</tr>
<tr>
<td>3 years to 12 years</td>
<td>1/2 tablet per day</td>
</tr>
<tr>
<td>1 month to 3 years</td>
<td>1/4 tablet per day¹</td>
</tr>
<tr>
<td>Birth to 1 month</td>
<td>1/8 tablet per day²</td>
</tr>
</tbody>
</table>
1. Dissolve 1 tablet in 20 ml of water and take 5 ml (ignore any residue)
2. Dissolve 1 tablet in 40 ml of water and take 5 ml (ignore any residue)

Tablets can be crushed and mixed with water, milk, orange juice, flat soda, raspberry syrup or infant formula. Shake well to make sure the powder dissolves.

Tablets can be taken with food or with an empty stomach.

15. **Breastfeeding women**, when advised by the Government, should take the recommended dose for adults. Her baby receiving breast feeding should also be given KI at the recommended age-specific dosage.

### Side Effects

16. **Newborn babies** (< 1 month) should have their thyroid hormone levels monitored after the use of KI. A consultation with a paediatrician within the first week after the use of KI is advisable.

17. **Pregnant women** who have taken KI, should inform their doctor and have the thyroid function of their newborn babies checked.

18. The incidence of significant adverse reactions from low-dose short-term administration of potassium iodide is expected to be low. Usually, side effects may occur when people take higher doses for a long period. You should not take more than the recommended dose or take it for longer than you are told.

19. Possible side effects include skin rashes, swelling of the salivary glands and "iodism" (metallic taste, burning sensation of the mouth and throat and sore teeth and gums, symptoms of a head cold and sometimes stomach upset and diarrhoea).

20. A few people may have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.

21. Taking iodine may rarely cause over-activity of the thyroid gland, under-activity of the thyroid gland or enlargement of the thyroid gland (goitre).

### What to do if side effects occur

22. If the side effects are severe or if you have an allergic reaction, call a doctor or attend the Accident & Emergency Department of a hospital.
Storage

23. Store in a cool dry place. Tablets should be protected from air, heat, light and moisture. The package should be kept dry and foil packets intact. Keep out of reach of children.

Generic criteria of projected dose for use of thyroid blocking agent

Reference:
Report of the Radiological Protection Advisory Group 26 October 2011
Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency, General Safety Guide No. GSG-2, IAEA 2011

<table>
<thead>
<tr>
<th>Generic criteria</th>
<th>Examples of protective actions and other response actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_{Thyroid}$</td>
<td>50 mSv in the first 7 days</td>
</tr>
<tr>
<td>$E$</td>
<td>100 mSv in the first 7 days</td>
</tr>
<tr>
<td>$H_{Fetus}$</td>
<td>100 mSv in the first 7 days</td>
</tr>
</tbody>
</table>

$H_T$ - Equivalent dose in an organ or tissue T  
$E$ - Effective dose
Annex 6.3

Generic Criteria for Protective Actions and Other
Response Actions in Emergency Exposure Situations
to Reduce the Risk of Stochastic Effects

Reference: Criteria for Use in Preparedness and Response for a Nuclear or

A. Generic criteria of projected dose for urgent protective actions and
other response actions

<table>
<thead>
<tr>
<th>Generic criteria</th>
<th>Examples of protective actions and other response actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_{Thyroid}$</td>
<td>50 mSv in the first 7 days Iodine thyroid blocking</td>
</tr>
<tr>
<td>$E$</td>
<td>100 mSv in the first 7 days Sheltering; evacuation;</td>
</tr>
<tr>
<td>$H_{Fetus}$</td>
<td>100 mSv in the first 7 days decontamination; restriction of</td>
</tr>
<tr>
<td></td>
<td>consumption of food, milk and water; contamination</td>
</tr>
<tr>
<td></td>
<td>control; public reassurance</td>
</tr>
</tbody>
</table>

$H_T$: Equivalent dose in an organ or tissue $T$

$E$: Effective dose

B. Relevant Default Operational Intervention Levels (OIL)

<table>
<thead>
<tr>
<th>OIL</th>
<th>Value</th>
<th>Response action (as appropriate) if the value is exceeded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Immediately evacuate or provide substantial shelter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If a person has handled a source with a dose rate $\geq 1000\ \mu Sv/h$ at $1 \text{m}^4$ provide an immediate medical examination</td>
</tr>
<tr>
<td>OIL1</td>
<td>• Gamma ($\gamma$) 1000 $\mu$Sv/h at 1 m from surface or a source</td>
<td>• Provide for decontamination of evacuees</td>
</tr>
<tr>
<td></td>
<td>• 2000 counts/s direct beta ($\beta$) surface contamination measurement</td>
<td>• Reduce inadvertent ingestion</td>
</tr>
<tr>
<td></td>
<td>• 50 counts/s direct alpha ($\alpha$) surface contamination measurement</td>
<td>• Register and provide for a medical examination of evacuees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If a person has handled a source with a dose rate $\geq 1000\ \mu Sv/h$ at $1 \text{m}^4$ provide an immediate medical examination</td>
</tr>
<tr>
<td>OIL</td>
<td>Value</td>
<td>Response action (as appropriate) if the value is exceeded</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>OIL3</td>
<td>• Gamma ($\gamma$) 1 $\mu$Sv/h at 1 m from surface</td>
<td>• Consider providing iodine thyroid blocking for fresh fission products and for iodine contamination if replacement for essential local produce or milk is not immediately available</td>
</tr>
<tr>
<td></td>
<td>• 20 counts/s direct beta ($\beta$) surface contamination measurement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 2 counts/s direct alpha ($\alpha$) surface contamination measurement</td>
<td></td>
</tr>
</tbody>
</table>

1. Inside closed halls of large multi-storey buildings or large masonry structures and away from walls or windows.

2. If immediate decontamination is not practicable, advise evacuees to change their clothing and to shower as soon as possible.

3. Advise evacuees not to drink, eat or smoke and to keep hands away from mouth until hands are washed.

4. This external dose rate criterion applies only to sealed dangerous sources and does not need to be revised in an emergency.

5. Performed using good contamination monitoring practice.

6. Only for several days and only if replacement food is not available.

7. Fission products that were produced within the last month, thus containing large amounts of iodine.

8. Restricting essential foods could result in severe health effects (e.g. severe malnutrition), and therefore essential foods should be restricted only if replacement food is available.
Annex 6.4

Location Map of Ping Chau

(a) Ping Chau Police Post
(b) the ex-military camp adjacent to the Police Post
(c) the AFCD office next to Lam Uk
(d) Ping Chau Ferry Pier
(e) Helicopter Landing Site – P26
To perform crowd control duties at MCs and, if required, at evacuation and vessel radiation monitoring points.

Notification to vessels in Mirs Bay to evacuate and to go to MCs (if required); marine traffic management; assistance in obtaining marine assets to effect evacuation of Ping Chau.

To make arrangements to open MCs (see Chapter 8) for evacuees from Ping Chau and Mirs Bay and for government emergency workers assisting in the evacuation.

May be required to provide a Customs launch in Mirs Bay and customs clearance at MCs for vessels.

Boundary control of non-HK vessels at MCs for vessels.

To make arrangements to open MCs (see Chapter 8) for evacuees from Ping Chau and Mirs Bay and for government emergency workers assisting in the evacuation.

To provide services at MCs including monitoring of persons and vessels as necessary (See Chapter 8).

To perform crowd control duties at MCs and, if required, at evacuation and vessel radiation monitoring points.

AFCD officers on Ping Chau to assist HKPF in evacuation.

**ANNEX 6.5**

**EPZ1 (Ping Chau Island and Mirs Bay)**

**Alerting System Chart**

Advice to S for S on evacuation or sheltering and whether other countermeasures (e.g. decontamination, thyroid blocking) will be required.

**ACTION REQUIRED** (details in departmental plans)

Decision and providing assistance to PHQCCC in coordinating resources

Issue Press Releases

Overall command by ACP/Ops

Notification to vessels in Mirs Bay to evacuate and to go to MCs (if required); marine traffic management; assistance in obtaining marine assets to effect evacuation of Ping Chau.

Provision of helicopter assets to assist in evacuation.

Arranging for transport to take persons from evacuation or MCs.

If required, assist GLD in mobilising private operators and MD in the evacuation by strengthening the existing public transport service.

May be required to provide a Customs launch in Mirs Bay and customs clearance at MCs for vessels.

Boundary control of non-HK vessels at MCs for vessels.

To make arrangements to open MCs (see Chapter 8) for evacuees from Ping Chau and Mirs Bay and for government emergency workers assisting in the evacuation.

To provide services at MCs including monitoring of persons and vessels as necessary (See Chapter 8).

To perform crowd control duties at MCs and, if required, at evacuation and vessel radiation monitoring points.

AFCD officers on Ping Chau to assist HKPF in evacuation.
Annex 6.6

Ping Chau Time Frame for Evacuation by Sea
Using HKPF and C&ED Fleet Resources

<table>
<thead>
<tr>
<th>Time Lapse from Alert to Ma Liu Shui Pier</th>
<th>Persons Lifted</th>
<th>Fleet Resources</th>
<th>Persons Lifted Running Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 hours</td>
<td>920</td>
<td>HKPF(Marine) (MNDIV &amp; MEDIV) C&amp;ED (Marine Enforcement Division)</td>
<td>920</td>
</tr>
<tr>
<td>8 hours</td>
<td>920</td>
<td>HKPF(Marine) (MNDIV &amp; MEDIV) C&amp;ED (Marine Enforcement Division)</td>
<td>1 840</td>
</tr>
</tbody>
</table>

**Note 1**
Above figures assume fair weather conditions. Bad weather conditions would reduce pax carriage by up to 50% (e.g. 460 pax in the first 4 hours). Bad weather might also increase time frames. (Tropical cyclones may restrict action to sheltering in lieu of evacuation)

**Note 2**
For many days in the year, helicopter evacuation of Ping Chau will be more practical and realistic in view of the small numbers involved. Designated helicopter landing site – P26 will be used as marked in Annex 6.4.

**Note 3**
There are only less than 10 permanent residents on the island. They are not always present on Ping Chau, which is popular as a resort area especially during the summer months at weekends when visitors arrive for leisure pursuits. The above transient population figures represents the busiest summer holiday weekends, when up to 1 800 visitors will spend their holiday there.