

SCIENTIFIC, TECHNICAL AND OPERATIONAL ADVICE NOTE
- STOp 1/2001

Maritime Pollution Response in the UK
The Environment Group

1. Introduction
2. Purpose, Scope and Key Tasks of the ENVIRONMENT GROUP (EG)
 - 2.1 Purpose of the EG
 - 2.2 Scope of the EG
 - 2.3 Key Tasks of the EG
 - 2.4 Requirements of the EG in order to fulfil functions
3. Composition and Structure of the EG
 - 3.1 Membership of the EG
 - 3.2 Key EG personnel and their roles
 - 3.3 Structure of the EG
4. Establishment of the EG for Maritime Incident Response
 - 4.1 MCA routine alerting procedure
 - 4.2 Alerting procedure when a Standing EG (SEG) exists
 - 4.3 Alerting procedure and EG establishment where a Standing EG does not exist
 - 4.4 Standing down the EG
5. Establishment of a standing EG and Contingency Planning
 - 5.1 Geographical coverage
 - 5.2 Suggested SEG work programme

Annexes

- 1 Glossary of abbreviations
- 2 Impact Assessment
- 3 Data
- 4 Communications
- 5 Record Keeping
- 6 Wildlife Welfare
- 7 EG Chair generic check list
- 8 Generic first meeting Agenda for the EG
- 9 Checklist for Information Requirements during Maritime Pollution Incidents

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1.0 INTRODUCTION

The concept of an ENVIRONMENT GROUP (EG), providing public health and environmental advice to all response units¹ with a role in responding to a significant maritime pollution incident was recommended by Lord Donaldson in his 'Review of Salvage and Intervention and their Command and Control' (The Stationary Office, Cm 4193, March 1999). This recommendation was accepted by Government and incorporated in the National Contingency Plan for Marine Pollution from Shipping and Offshore Installations (NCP) January 2000 (Section 9 & Appendix L). This STOp note supplements that guidance.

This notice aims to provide specific guidance to EG membership on the purpose and scope of the EG, and **in particular the great value in contingency planning through the establishment and maintenance of regional "standing" EG's.**

The Marine and Coastguard Agency (MCA) will initiate the formation of an EG to provide advice during any incident requiring a regional or national response. However, the framework established by standing EG's will also enable coordinated and timely environmental input to any other more localised or specialised incidents.

It is stressed that the EG's remit is advisory and it has no powers of direction or enforcement. Regulatory functions of individual members of the EG are exercised outwith the Group structure and function.

Standing EG's are currently being set up across the UK. The MCA aim to cover the entire UK coastline with standing EG's and individual group notification protocols by the end of 2001. New groups will be added to an annotated map as they are established.

2.0 PURPOSE, SCOPE AND KEY TASKS OF THE ENVIRONMENT GROUP

2.1 Purpose of the Environment Group

The purpose of the EG is derived from the Terms of Reference detailed in NCP Appendix L, paragraphs L.3 - 5.

- ◆ To provide public health and environmental advice and guidance to all response units involved in response to an oil and or chemical marine pollution incident and subsequent clean up operations.
- ◆ To advise response units so as to minimise the impact of the incident on the environment in the widest sense, taking account of risks to public health and the

¹ The Salvage Control Unit, Marine Response Centre, Shoreline Response Centre and port or harbour Command and Control Centre are referred to as *response units* throughout this document.

natural environmental, and potential impacts arising from any response operations, whether salvage or clean up operations, at sea and on the shoreline.

- ◆ To monitor, assess and document the public health and environmental (including wildlife) impact of a maritime pollution incident with respect to oil and/or chemicals and the impact of all measures implemented in response to the incident.
- ◆ To facilitate welfare, rehabilitation or humane disposal of wildlife casualties by recognised animal welfare organisations.

2.2 Scope of the Environment Group

The scope of EG functions will be directly proportional to the scale and nature of the incident, its geographical location, extent, severity, pollutant involved, potential hazard to human health and the environmental sensitivities. The scale of incident and response and their constituent phases are likely to evolve over time and the functions of the EG will need to be graduated to meet changing requirements, escalating or diminishing in the input to each phase over time.

The definition of marine and coastal environment in the EG's context includes public health, the natural environment, water quality, wildlife including fish, cultural, landscape, habitats and socio - economic factors linked to human health, e.g. through food chains.

The scope of EG functions includes:

- ◆ provision of public health and environmental advice to the Secretary of State's Representative (SOSREP), the Salvage Control Unit (SCU), the Marine Response Centre (MRC), the Shoreline Response Centre (SRC) and the Command and Control Centre for incident response in ports and harbours.
- ◆ liaison with and obtaining any relevant information the EG requires to fulfill its functions from all response units established to deal with the pollution.
- ◆ proactive management of information on all health and environmental issues between the units.
- ◆ seeking to minimise the impact of an oil and or chemical pollution incident on human health (See Annex 1 *Risk Assessment*)
- ◆ seeking to minimise the impact of an oil and or chemical pollution incident on the environment, by determining optimal environmental end points, beyond which the response will not provide environmental benefit, or may actually produce a disbenefit. This process is undertaken through 'Net Environmental Benefit Analysis'. The scope of this task includes identification of how 'clean' the environment needs to be to enable ecological recovery.

- ◆ the prompt planning, implementation and management of data gathering to enable an integrated evaluation of acute and chronic health and environmental impacts of the pollution incident across the widest appropriate range of issues (see Annex 2 *Impact Assessment*).
- ◆ ensuring that proper consideration is given to all the health and safety requirements for personnel working for the EG.

2.3 Key tasks of the Environment Group

NB: The following tasks are not in order of priority or exhaustive, and not all may be necessary in individual incidents. Tasks and priorities will be incident specific.

Provision of health advice

- ◆ Provide advice on potential and real impact on public health with respect to oil and chemicals.
- ◆ Advise on requirements for the monitoring of threat to public health.

Provision of operational advice

- ◆ Assess environmental priorities at risk from pollutant and from clean-up activity.
- ◆ Establish EG priorities for resource protection and pollution clean-up.
- ◆ Prepare an incident-specific EG view on at-sea and on-shore dispersant and chemical treatment product use.
- ◆ Provide advice and guidance on health and environmental sensitivities, and risks, preferred options and health and environmental implications of proposed salvage and clean-up response strategies with respect to achieving a net environmental benefit.
- ◆ Ensure that the above advice is timely and accurately reflects the dynamics of health and environmental resources at risk.
- ◆ Ensure thorough and timely documentation of all advice provided to the response units. Where a response unit does not follow such advice, the reasons for not doing so should be recorded. Copies of all records of advice provided and feedback from response units should be circulated within the EG (see Annex 6 – *Record Keeping*).
- ◆ Facilitate effective communication on health and environmental matters between the response units and the EG via appointed Environmental Liaison Officers.
- ◆ Ensure that appropriate coordinated and timely arrangements for incident specific assessment of the effects on public health and environment are initiated and subsequently managed (see Annex 3 *Impact Assessment*)

- ◆ Monitor and keep under review public health and environmental implications of ongoing salvage and at-sea clean up operations.

Contribution to the SRC

- ◆ Ensure representation in the SRC Management Team via the appointed Environmental Liaison Officer.
- ◆ Monitor on-shore clean up operations, particularly in sensitive areas to ensure that clean-up operations match the strategy agreed in the SRC.
- ◆ Advise, contribute to and provide members for the SRC-controlled multi-disciplinary Shoreline Clean-Up Assessment Teams [SCAT], as required

Health and safety

- ◆ Ensure the full implementation of health and safety measures for personnel working in the field on behalf of the EG [for example, through risk assessments, COSHH, Personal Protective Equipment, and health tracking].

2.4 Requirements of EG in order to fulfil functions

- ◆ A wide range of expertise in the impact of oil and chemicals on public health, marine and coastal ecology, wildlife, water quality, fisheries and animal welfare.
- ◆ Sufficient experienced personnel with appropriate local knowledge to carry out the many and varied key and essential tasks. A major incident will require a significant number of personnel, potentially 24 hours a day, seven days a week. **The number of people and level of expertise required must not be underestimated** (see section 3).
- ◆ Comprehensive information and data: pre-incident health and environmental baseline data and all incident related data. (See Annex 4 *Data*)
- ◆ A prepared organisational framework.

3.0 EG COMPOSITION AND STRUCTURE

3.1 Membership of the EG

The potential membership of an EG is identified in the NCP Appendix L paragraphs L.17 - 21. The composition of the EG will depend on the scale, nature and location of the incident.

3.1.1 Core membership

The minimum core membership will include representatives of:

- ◆ Public health body;

- ◆ The environmental regulator [EA, EAW, SEPA or EHS];
- ◆ The statutory nature conservation body [EN, SNH, CCW or EHS, plus JNCC];
- ◆ The fisheries department [SEERAD, DEFRA, NAWAD or DARD];
- ◆ MCA.

Table 1. The responsible organisations providing the core members under the UK devolved administrations

Organisation[®] Devolved Administration[™]	Environmental Regulator	Statutory Nature Conservation Body	Fisheries Department	Public health body
Scotland	SEPA	SNH (+ JNCC >12 miles offshore)	SEERAD	Health Boards
England	EA	EN (+ JNCC >12 miles offshore)	DEFRA	Health Authorities
Wales	EAW	CCW (+ JNCC >12 miles offshore)	NAWAD (DEFRA act as agent)	Health Authorities
Northern Ireland	EHS	EHS (+ JNCC >12 miles offshore)	DARD	Health Authorities

In addition, the EG may draw on specialist expertise according to the nature of the incident and which will dictate specific requirements for information and advice. In a major incident the EG will likely be expected to field significant numbers of personnel both in the core EG and in the field. Incident response circumstances may require the setting up of sub groups to cater for specialist activities. Where a clear threat to public health exists it is likely that the appropriate public health medicine organisation will join the group.

3.1.2 Extended membership may include

Health:

- ◆ NHS Regional Office Doctor or NHS Regional Office Physician.
- ◆ Chemical Incident Response Service, Guy's and St Thomas' Hospital
- ◆ Local authority Environmental Health departments
- ◆ Occupational Health Advisor
- ◆ National Focus
- ◆ Food Standards Agency
- ◆ Chemical Hazards Advisory Group
- ◆ UK Petroleum Industries Association

Fisheries:

- ◆ Sea Fisheries Committees
- ◆ Centre for Environmental, Fisheries and Aquatic Science
- ◆ Fisheries Research Service Marine Laboratory Aberdeen (Scotland)

- ◆ District Salmon Boards (Scotland)

Coastal Environment

- ◆ Local authority countryside and coastal environmental staff
- ◆ (Coastal) National Park staff

Wildlife Welfare

- ◆ Royal Society for the Prevention of Cruelty to Animals
- ◆ Scottish Society for the Prevention of Cruelty to Animals
- ◆ Ulster Society for the Prevention of Cruelty to Animals

3.1.3 Additional organisations potentially able to provide support include

- ◆ Royal Society for the Protection of Birds
- ◆ British Trust for Ornithology
- ◆ Sea Mammal Research Unit
- ◆ National Trust / National Trust for Scotland
- ◆ County / local Wildlife Trusts
- ◆ Other NGO's
- ◆ Specialist environmental consultancies
- ◆ Academic and research institutions
- ◆ Aquaculture industry

3.2 Key EG personnel and their roles

Each of the key roles should be filled by the individuals most suited to the job and purpose, independent of their parent organisation or position within that organisation. They must be able to command respect and authority of personnel within the EG and the incident response units. Each should have one or more clearly identified deputies.

3.2.1 EG chair

The role of the Chair is to ensure the EG undertakes its functions so as to enable provision of:

- ◆ the best possible health and environmental advice to all response units
- ◆ the management of a prompt and timely evaluation of the impact of the pollution incident.

3.2.1.1 Responsibilities

- ◆ Management of the group
- ◆ Ensuring strategic objectives are met
- ◆ Co-ordination of all group functions and activities
- ◆ Development and maintenance of most appropriate group structure
- ◆ In the simplest incidents, act as a conduit of advice (usually by telephone) to SOSREP, MCA or any response unit or local authority response coordination centre.

The EG chair must nominate at least one deputy; working 24 hours / day, 7 days / week may be required.

3.2.1.2 Competencies

- ◆ Manager,
- ◆ Good judgement
- ◆ Top communication skills and clear ability to mediate in times of debate over contentious issues
- ◆ Able to command respect and authority
- ◆ Ability to exercise delegated authority on behalf of and within Group.
- ◆ Ability to understand, interpret and address the full range of health and environmental issues.
- ◆ Ability to identify the key issues and the organisations and individual specialists who can provide support and advice to the group.
- ◆ Familiarity with relevant public health issues and the environmental features of the affected marine and coastal area.
- ◆ Familiarity with the NCP and this STOp notice.
- ◆ Experience in maritime pollution response would be advantageous

The Chair should have had the opportunity to exercise the role, preferably with several of the other key members of the Group.

The Chair must be able to take an overview independently of personal professional interest and the working culture of his / her parent organisation. The Chair does not need to be a specialist.

3.2.2 Environmental Liaison Officers (ELO)

The role of the ELOs is to provide:

- ◆ Public health and environmental advice to the response units
- ◆ the communications link between the EG and the response units.

The EG must have an ELO in each response unit established to deal with a pollution incident. ELOs need to have a comprehensive range of specialised competencies and must be appropriately qualified and trained for the role. It is the responsibility of the EG Chair to nominate ELOs for each response unit, taking into account the location, nature and scale of the incident, the views of the group and the expertise each unit is most likely to require. Because of the specialised nature of the ELO role, the Chair's task will be assisted by a pre-incident planned list of suitably qualified and experienced personnel.

3.2.2.1 Responsibilities

- ◆ Providing timely, prioritised and focussed health and environmental advice to the individual response unit where he / she is based.
- ◆ Providing an efficient and effective two-way communications link, with respect to health and environmental issues, between the response unit and the EG.
- ◆ Assimilating a sound and timely overview of the operational response units' health and environmental information requirements

- ◆ Ensuring feedback to the EG of all relevant information from the response unit on progress of the incident.

Only one ELO should be appointed to each response unit to ensure a clear focus of EG representation. However, depending on the scale of the incident, ELOs must have back up in the form of one or more deputies because health and environmental advice to the response units may be required 24hrs / day, 7 days / week. The SRC ELO will be required to be a member of the SRC Management Team and must also have appropriate administrative and technical support and assistance.

It is particularly important that ELO's understand their role and links between the EG and the individual incident response units. Communications protocols between ELO's and the EG are critical and should be pre-planned for optimum operational effectiveness. ELO's are responsible for the management and passing of information within the EG remit only.

3.2.2.2 Competencies

Clearly, no one individual is likely to fulfill all the competencies listed below. The competencies listing provides guidance to assist with the identification of the most appropriate individuals for the role, depending upon the nature of the incident.

General competencies

- ◆ A broad understanding of relevant public health and marine / coastal environmental issues, and comprehensive understanding of relevant local health and environmental resources, issues and priorities for protection.
- ◆ General understanding of relevant statutory and regulatory responsibilities of member organisations of core EG and ability to evaluate the implications of these in providing advice.
- ◆ Ability to balance a wide and potentially conflicting range of issues in presenting EG advice succinctly. This is particularly important, because, when there is insufficient time to consult the EG as a whole, ELO's may need to provide immediate, on-the-spot advice to the response units.
- ◆ Ability to exercise delegated authority on behalf of Group.
- ◆ Ability to command respect and authority within assigned response unit.
- ◆ Sound judgement.
- ◆ Ability to communicate clearly and succinctly.
- ◆ Experience in counter pollution response and understanding of Net Environmental Benefit Analysis.

Specialised competencies

SCU / MRC

- ◆ Familiarity with and understanding of technical issues relevant to assigned response units; e.g. shipping, salvage, pollutant behaviour, response options including dispersant use, efficacy and limitations.
- ◆ Marine ecology and science

SRC

- ◆ Ability to effectively represent the EG on the SRC Management and Technical Teams

- ◆ Familiarity with and understanding of pollutant behaviour, shore clean-up techniques and their efficacy and limitations, including dispersant use, and waste management and disposal issues.

ELO's must be able to take an overview independently of personal professional interest and the working culture of his / her parent organisation.

3.2.3 Other key roles in the EG

In addition to the representatives of the core member bodies, depending on the scale, location and complexity of any marine pollution incident and associated response, there may be a need for a wide range of other key roles within a core EG. These are likely to include, but not be limited to the following:

- ◆ Impact assessment manager / coordinator
- ◆ Specialists according to nature of incident, e.g. Public Health advisors, chemists, marine ecologists, ornithologists, water quality, geologists.
- ◆ Administrative and secretarial management and support.
- ◆ Information and data managers (strong cross links to impact assessment manager & main link to data collection support groups).
- ◆ Media liaison representative.

3.2.4 Additional roles

The core operational EG may also require support from:

- ◆ Deputies for all key roles, particularly Chair and ELO's.
- ◆ Data collectors, loggers and analysts.
- ◆ Specialist observers to obtain environmental overviews of incident, particularly from any available aerial platforms
- ◆ Specialist 'monitors' at sensitive sites / complex responses.

The EG needs to provide environmental staff for SRC Shoreline Clean-up Assessment Teams².

¹ The purpose and role of Shoreline Clean-up Assessment Teams (SCAT) is described in the SRC STOp note (STOp x/2001). The key purposes of SCAT are to:

- assess the nature and extent of shoreline pollution;
- evaluate the actual and potential impact of shoreline pollution;
- identify and advise the SRC or other local authority response coordination centre on appropriate shoreline clean-up measures required to mitigate any adverse impacts of shoreline pollution.

3.3 Structure of Environment Group

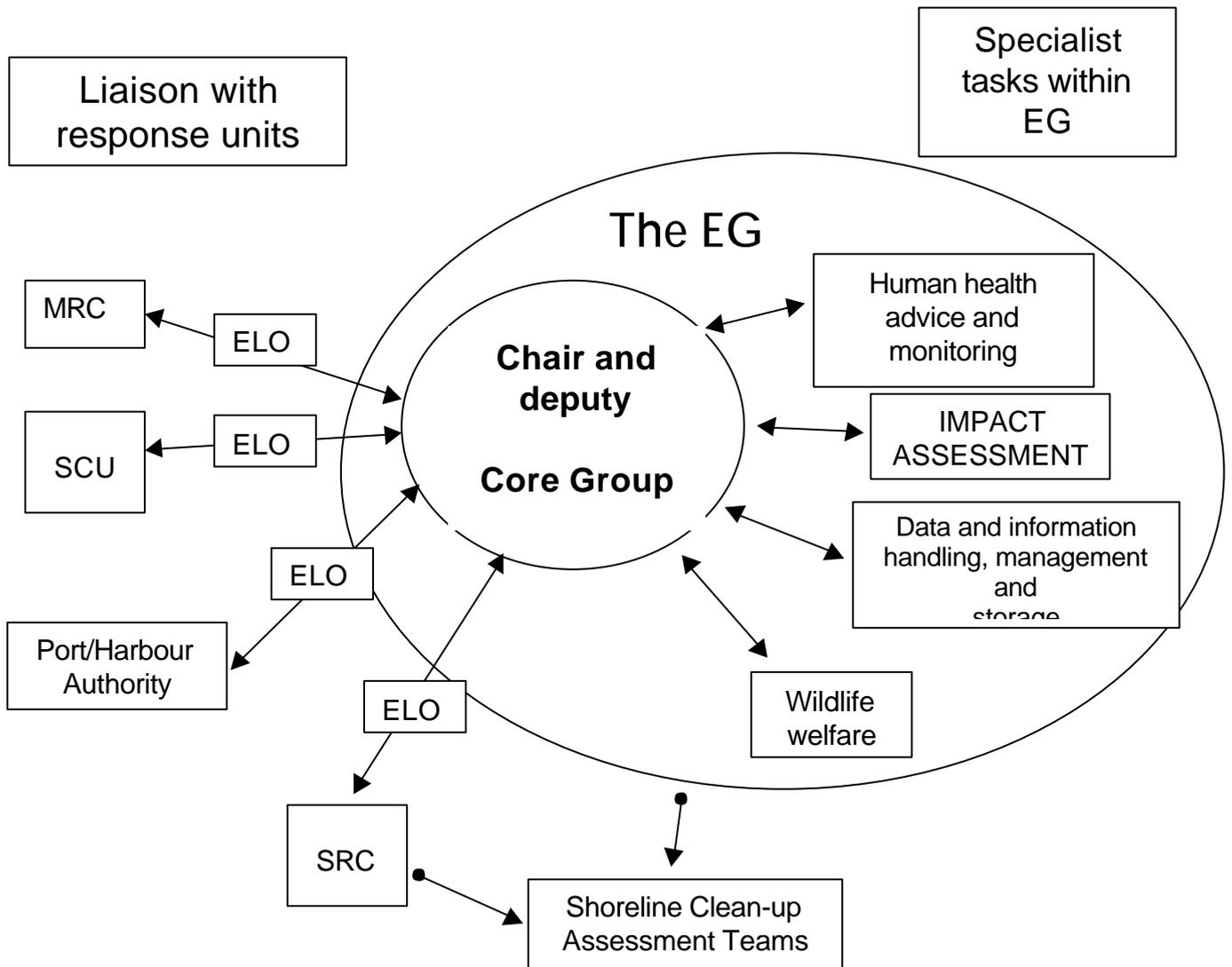


Fig. 1 Structure of EG in a major incident

4.0 Establishment of the EG for maritime incident response

This section amplifies the broad guidance on establishment of the EG provided in paragraphs 9.3 and L.12 - 16 of the NCP.

The ease of timely establishment of an operational EG and its fully effective working will be largely determined by whether:

- ◆ a Standing EG already exists in the locality of the incident.
- ◆ the Standing EG is fully aware and committed to its role and responsibilities and is adequately prepared.
- ◆ the Standing EG comprises the appropriate complement of expertise to deal with the incident in hand.

The benefits of having a standing EG in place, particularly in the event of a major and or complex incident, should not be underestimated.

4.1 MCA routine alerting procedure

In the event of a maritime incident threatening to or actually causing marine pollution, the MCA have a routine alerting procedure to inform all organisations likely to be involved in response to the incident.

HM Coastguard will routinely call the duty MCA Principal Counter Pollution and Salvage Officer, who in turn will contact the duty MCA Counter Pollution Branch scientist. The MCA duty scientist or his representative will call the appropriate national contact points for the following organisations:

- ◆ Under the Chemical Hazards Advisory Group, the Chemical Incident Response Service will provide toxicology advice and alert Health Authorities, National Focus or chemical incident provider units as required
- ◆ The Fisheries Department
- ◆ The Statutory Nature Conservation Body
- ◆ The Environmental Regulator

4.2 Alerting procedure where a Standing EG exists

The national contact point for each organisation follows their own internal call out procedures to inform agreed local representatives of the appropriate standing EG.

In addition, the MCA may directly notify the appropriate EG through predetermined supplementary alert channels.

Clearly, where a standing EG exists, the way forward is already pre-planned and largely pre-determined.

4.3 Alerting procedure and EG establishment where a Standing EG does not already exist

The response protocols for each organisation differ but each has a mechanism for contributing to the setting up of an EG. The NCP outlines the manner in which an EG would be initiated by the MCA contacting the three core (statutory) bodies.

The three core bodies will elect a Chair between them who would initially determine an operational location. The Chair will appoint and dispatch ELO's as required to response units already established.

The chairman and core members will decide whether to expand the Group's membership to include representatives of other organisations with regard to the scale and nature of the incident. The chairman and core members will also decide, whether to and when, it is necessary to convene the EG close to the scene of the incident and ensure the Group is co-located with the SRC, if established. Local and regional contingency plans should identify suitable accommodation and support facilities for the EG.

Next, the core members (public health advisor, nature conservation, fisheries department, environment regulator and MCA representative) nominate a chair for the EG as quickly as possible. As the incident unfolds, the Chair of the Group may change according to the change of phase of the incident and the availability of resources.

4.4 Standing down the EG

The role of an EG will evolve over the period of any incident. The requirement for certain key EG functions and members will cease as the relevant response units complete their tasks and stand down. Provision of operational advice to an SRC is likely to extend far beyond provision of advice on acute health issues, salvage or at-sea response. Operational advice may continue to be required by a local authority shore clean-up control centre after an SRC stands down, and impact assessment is likely to be a protracted task. Redeployment of staff from acute operational response advisory roles to, *inter alia*, advising on long-term clean up response on difficult shores or impact assessment tasks may be appropriate and necessary.

The decision to stand down will be taken by the EG. Whilst standing down the advisory function of the EG will be largely guided by the response units, the decision to stand down any impact assessment operations will be driven by scientific criteria.

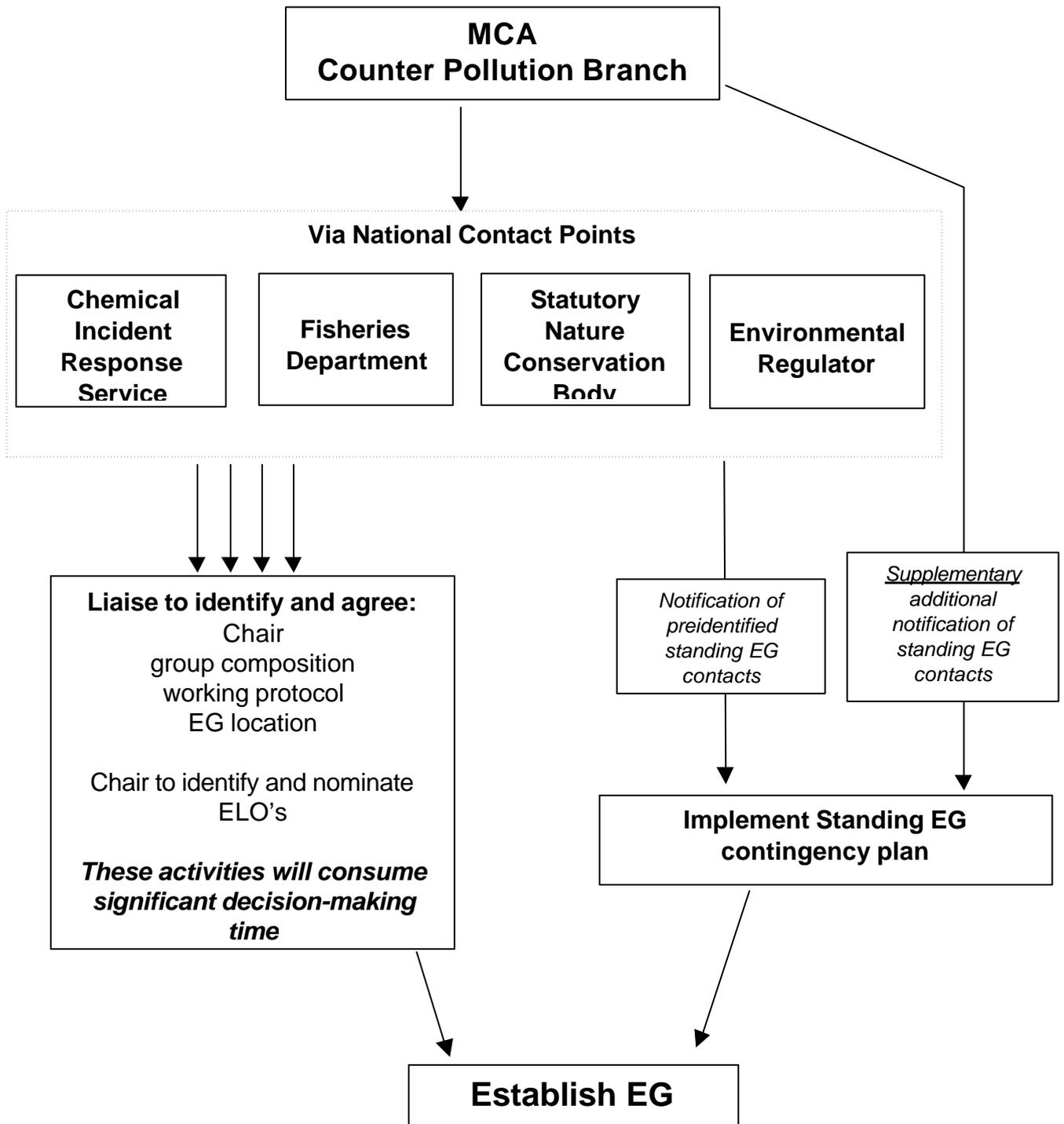


Fig. 2 Alert procedure and establishment of the Environment

5. The Establishment of a Standing EG and Contingency Planning

Advice from the EG will be required at an early stage in an incident. Pre-determined membership (including contact details), pre-identification of key roleholders and preprepared access to essential health and environmental information are vital if the group is to be formed swiftly and advice is to be timely and accurate.

The benefits of forming a 'standing' EG are manifold:

- ◆ The EG will be able to establish itself promptly and independently of any response units.
- ◆ Provision of health and environmental advice will be timely and coordinated.
- ◆ Organisational representatives will understand the roles and responsibilities of the other players in the Group.
- ◆ Individuals will already know each other and their respective areas of expertise.
- ◆ Particular roles and tasks contributing with Group operation can be agreed and pre-allocated e.g. Chair, Deputy, ELO's, Impact assessment staff, SCAT members and specialists.
- ◆ A working protocol is already agreed, promoting a timely, committed and co-ordinated start.
- ◆ Information about health and environmental sensitivities will be pre-identified and collated into readily useable formats.
- ◆ There will be a collective understanding of the role and function of the EG within the overall incident management process.

Where standing groups are not established then health and environmental advice to response units may be delayed and poorly co-ordinated.

National consistency of approach is important. A maritime pollution incident affecting more than one EG area of jurisdiction will require a common approach in the provision of advice on minimising impact on public health and the environment.

5.1 Geographical coverage

The geographical boundaries of Standing EG's should meet local needs, but be widely known and interface with adjoining groups. MCA have accepted the role of coordinating and disseminating information on EG locations and boundaries.

In establishing the area to be covered by a new Standing EG it is important that the area is logical i.e.:

- ◆ has easily defined outer (coastal) limits
- ◆ encompasses the whole of any estuary system
- ◆ abuts adjacent pre-existing Standing EG's
- ◆ encompasses ecologically meaningful areas

Whilst it would be administratively convenient if the geographical limits of Standing EG's coincide with the boundaries of the participating organisations, it is highly unlikely, and agreement should be sought to identify a practical and workable area with contingency

in place for amalgamation where an incident impacts more than one Standing Environment Group (SEG) area.

5.2 Suggested SEG Work Programme

EG's should prepare a plan for an EG response to a worst case maritime oil and or chemical incident scenario to:

- ◆ Identify key roles, responsibilities, competencies and job description
- ◆ Establish expertise, shortfalls and gaps within the group.
- ◆ Identify external sources of expertise not available to the group.
- ◆ Establish and maintain communication links within the group, with adjacent EG's and with parent organisations.
- ◆ Identify pool of ELO's able to fulfil specialist ELO functions in complex incident response.
- ◆ Identify administrative support and communications requirements
- ◆ Establish links with local contingency plans: port and harbour plans, local authority oil and chemical response plans.
- ◆ Identify suitable EG operational accommodation (co-located with and independently of an SRC)
- ◆ Establish and maintain and appropriate health and environmental databases.
- ◆ Undertake generic risk assessments for public health and of environmental resources within Group's geographical area.
- ◆ Develop generic environmental advice, based on NEBA, for the use of oil spill dispersants, aggressive clean-up techniques, leave alone sites, site protection prioritisation.
- ◆ Develop Impact Assessment priorities, organisation, environmental baselines and project management.
- ◆ Identify potential EG members to contribute to SRC Shoreline Cleanup Assessment Teams.
- ◆ Identify training needs for group members of all disciplines.
- ◆ Develop administrative protocols for information and data management and record keeping.
- ◆ Develop health and safety protocol
- ◆ Write, exercise and review the Group plan.

ANNEX 1 Glossary of abbreviations

AONB	Area of Outstanding Natural Beauty
ASSI	Area of Special Scientific Interest (Northern Ireland)
BTO	British Trust for Ornithology
CCW	Countryside Council for Wales
CEFAS	Centre for Environmental, Fisheries & Aquatic Science
CHAG	Chemical Hazards Advisory Group
CIRS	Chemical Incident Response Service
DTLR	Department of Transport, Local Government and the Regions
DARD	Department of Agriculture & Rural Affairs (Northern Ireland)
DEFRA	Department for Environment, Food & Rural Affairs
EA	Environment Agency
EAW	Environment Agency Wales
EG	Environment Group
ELO	Environmental Liaison Officer
ESGOSS	Ecological Steering Group on the Oil Spill in Shetland
FEPA	Food & Environment Protection Act
GCR	Geological Conservation Review site
HMCG	Her Majesty's Coastguard
EHS	Environment & Heritage Service (Northern Ireland)
EN	English Nature
FRSMLA	Fisheries Research Service Marine Laboratory Aberdeen
JNCC	Joint Nature Conservation Committee
LNR	Local Nature Reserve
MCA	Marine & Coastguard Agency
MRC	Marine Response Centre
NAWAD	National Assembly for Wales Agriculture Department
NAWED	National Assembly for Wales Environment Division
NCP	National Contingency Plan
NEBA	Net Environmental Benefit Analysis
NGO	Non-governmental Organisation
NT	National Trust
NTS	National Trust for Scotland
NNR	National Nature Reserve
OSIS	Oil Spill Information System
PCPSO	Principal Counter Pollution & Salvage Officer (MCA)
RIGs	Regionally Important Geological site
RSPB	Royal Society for the Protection of Birds
RSPCA	Royal Society for the Prevention of Cruelty to Animals
SAC	Special Area of Conservation (EU Habitats Directive)
SAM	Scheduled Ancient Monument
SCAT	Shoreline Cleanup Assessment Team
SCU	Salvage Control Unit
SEEEC	Sea Empress Environmental Evaluation Committee
SEG	Standing Environment Group
SEPA	Scottish Environmental Protection Agency
SEERAD	Scottish Executive Environment and Rural Affairs Department
SMRU	Sea Mammal Research Unit
SNH	Scottish Natural Heritage
SOSREP	Secretary of State's Representative
SPA	Special Protection Area (EU Birds Directive)
SRC	Shoreline Response Centre
SSPCA	Scottish Society for the Prevention of Cruelty to Animals
SSSI	Site of Special Scientific Interest
USPCA	Ulster Society for the Prevention of Cruelty to Animals

ANNEX 2 IMPACT ASSESSMENT:

The description, quantification and evaluation of effects of maritime pollution incidents

A2.1 INTRODUCTION

Any incident resulting in marine pollution may have a public health or an environmental impact. There will inevitably be both public and political expectations of those involved in the incident and its aftermath to be able to quantify and describe how public health and the environment were affected by it.

Contingency planning is necessary to prepare for the assessment of the actual effects of significant pollution incidents, to enable assessment action to be taken proactively rather than reactively, and to match the scale of impact assessment action to scale of incident. Strategic planning at the time of an incident is also necessary to meet the assessment requirements of the specific incident.

Assessment should be based upon objective, accurate information and data rather than assumption and perceived wisdom.

There are clear differences between the objectives of impact assessment and providing operational advice to response units; there are also differences in outputs, timing, decision making, resourcing and political framework. There are both common and different data requirements. The geographical scope of impact assessment and operational response planning also differ.

These differences necessitate clear demarcation between the planning and implementation of the two EG roles. In a significant pollution incident it will almost certainly be necessary for the impact assessment function to be the task of a separate sub-group. However, there must be close integration and liaison between the sub-group and the rest of the EG; not least to meet the common data requirements.

An IA sub-group will reduce the need for government to form an official scientific committee, such as SEEEC or ESGOSS, to coordinate long term assessment work. However, in the event of a large scale incident where such a committee may be established, the early work carried out by the IA sub-group will be vital to an authoritative impact assessment and the sub-group should be prepared for an effective hand-over of responsibility and information if necessary.

A2.2 AIMS AND OBJECTIVES

The main aims of impact assessment are to:

- ◆ quantify actual health and environmental impact caused by pollution incident
- ◆ determine net environmental benefit of advice provided to response units and consequent response action
- ◆ meet agencies statutory duties to monitor / report on public health and the environmental condition of, *inter alia*, designated sites, species, waters
- ◆ meet public and political requirements for health and environmental information

In addition to these broad aims, impact assessment work should meet the following specific objectives:

- ◆ determine concentrations of pollutant in the environment, particularly in the human population, sensitive species and habitats, and the change of contaminant levels over time and to compare these with baseline data
- ◆ determine the environmental effects of the clean-up response on the environment

- ◆ determine the acute and chronic effects on environmental features affected by contamination, and their timescales; based, *inter alia*, on the assessment of the condition, population and distribution of species in their habitats, in comparison with those in control sites and trends in other areas remote from the contamination
- ◆ determine the longer term impacts on wildlife population and distribution (spatial and temporal) based on reproductive and behavioural effects
- ◆ predict the likely rate of recovery of species and habitats following contamination, and
- ◆ provide an overall assessment of the health and environmental impact of the incident in comparison with other incidents

The impact assessment will have to take full account of the spatial, temporal and behavioural fate of the pollutant as determined by the MCA and SRC.

A2.3 PLANNING FOR IMPACT ASSESSMENT

There is a need for plans to address both common national issues and specific local / regional requirements.

Although impact assessment is a specific EG function, there are administrative, resource and logistical problems in performing it within the operational advice framework of the response phase of an incident. It is strongly recommended that impact assessment should be organised by a clearly distinct sub group which can call upon national resources whilst maintaining close liaison with the core Group and utilising a common data-gathering framework

In the event of a significant pollution incident, plans should clearly acknowledge the need for prompt mobilisation of resources to enable impact assessment. Immediate tasks include rapid, real-time, assessment of key features in areas likely to be impacted by the pollution, collection of data on acute impacts, collection of data on impacts on public health and food safety, ensuring that the essential fate and behaviour of pollutant data which will be required later in the assessment is obtained and made available. The preparation of baseline resource and sensitivity databases should be undertaken as part of contingency planning (see section A2.5.2).

A2.4 DATA REQUIREMENTS FOR IMPACT ASSESSMENT

A2.4.1 Data collected by others

A2.4.1.1. Fate and behaviour of pollutant

Pollutant distribution, extent, characteristics, behaviour, actual and predicted, over full timescale of incident, in the atmosphere, on surface waters, in the water column and on shore (see Annex 3). The integration of EG plans with other plans is vital to ensure the rapid and effective transmission of pollutant data to the EG during an incident.

A2.4.1.2 Pollution response

Actions undertaken by MRC, SRC and other response units as appropriate; a full record and description of actions taken, time, location, techniques used and outcomes.

A2.4.2 Data collected by Environment Group

A2.4.2.1 Baseline

- ◆ real-time confirmation of human populations at risk
- ◆ real-time confirmation of environmental resources at risk, particularly seasonally variable or mobile features (e.g. birds, mammals, fish stocks, invertebrate fauna and flora)
- ◆ comprehensively inventory of all environmental features - habitats, species, geology, landscapes, designated sites etc - within the group's area (contingency planning)
- ◆ benchmark background pollutant levels

A2.4.2.2 Initial (acute) effects.

- ◆ Effects on human health
- ◆ Wildlife casualties and mortalities
- ◆ Habitats and archaeological features

A2.4.2.3 Medium - long term (chronic) effects of pollutant.

- ◆ direct and indirect, effects of pollutant on:
 - human health
 - marine and coastal wildlife communities, species and habitats
 - fisheries
- ◆ Levels of pollutant contamination in human population, biota (external / internal / tissue) and sediments

A2.4.2.3 Effects of clean-up / response

- ◆ direct and indirect, effects of response actions on:
 - marine and coastal communities, species and habitats
 - fisheries
 - landscape
 - archeological features

Shoreline clean-up response data from the SRC should be supplemented wherever possible by EG shore 'monitors'.

A2.4.2.4 Animal welfare action

Detailed records of:

- ◆ all wildlife taken for cleaning and rehabilitation
- ◆ action taken
- ◆ survival rates in captivity
- ◆ release dates and locations
- ◆ ringing or marking of wildlife prior to release
- ◆ post-release survival success

A2.4.2.5 Fate and behaviour of pollutant

- ◆ Pollutant distribution and behaviour information supplied by the MCA during the early stage of an incident should be supplemented wherever possible with an environmental overview of the incident.
- ◆ The requirement for long-term, or very precise, fate and behaviour of pollutant information for impact assessment purposes may exceed that which is necessary to inform response action. In these circumstances, the EG may need to make the necessary arrangements to ensure these data are collected.

A2.5 CONTINGENCY PLANNING

A2.5.1 National level

The following issues need to be addressed across the core agencies at either a UK or a devolved administration / country level:

- ◆ review, set and maintain sampling & data recording and analytical protocols and QC standards (national);
- ◆ establish and maintain coordination between core agencies; common data requirements, data sharing, integration of data collection effort (national & country)
- ◆ establish and maintain protocol to ensure the timely provision of fate and behaviour of pollutant data (national)
- ◆ integration with existing procedures to assess impacts of major environmental accidents on human health

- ◆ prepare and maintain broadscale baseline environmental resource database (national & country)
- ◆ prepare and maintain broadscale sensitivity atlases on GIS (national & country)
- ◆ identify resource requirements; maintain liaison between agency parent bodies and relevant central government administration (country; i.e. DEFRA, NAW, SERAD, EHS)
- ◆ establish and maintain coordination between core agencies and potential supporting agencies and organisations with respect to supporting roles, such as major NGOs (national & country)
- ◆ provision of relevant health and safety standards and advice (national & country)
- ◆ establish and maintain necessary administrative procedures; e.g. for individual project contracting and management (country)
- ◆ develop generic task descriptions for major roles

In addressing the above, the variation in local environmental priorities and sensitivities must be recognised. National agreements and standards should support rather than prescribe and circumscribe contingency plans developed by regional EG's.

A2.5.2 Local / regional level

Planning for impact assessment will be an integral part of the contingency planning carried out by standing EG's. Plans should include:

- ◆ composition of and provision to establish an incident specific impact assessment sub-group
- ◆ identification of key regional issues, priorities and tasks
- ◆ provision for liaison and coordination between core agencies, and with parent bodies with respect to national issues
- ◆ provision to ensure a continuous, two-way, flow of information and data sharing between the impact assessment sub-group and those responsible for providing health and environmental advice to response units and the parent agencies
- ◆ provision to liaise with wider membership and relevant support agencies
- ◆ preparation of local / regional environmental baseline resource database / GIS
- ◆ identification of roles and development of task descriptions
- ◆ identification of identified role holders and deputies
- ◆ training and briefing requirements for identified role holders
- ◆ H&S requirements and risk assessments for role holders

Plans must recognise the likely medium to long term effects of pollution incidents, and the consequential long time scales of later response phases and of impact assessment. Impact assessment is likely to continue well beyond cessation of clean-up response.

Plans must also anticipate the need:

- ◆ to maintain long term group structure until all agencies agree environmental interest in response is over and impact assessment is concluded
- ◆ for significant medium to long term resource requirements, particularly staff time

A2.5.3 Liaison and coordination

The scope of impact assessment is potentially very wide. Although the core agencies have different responsibilities, they share many common information requirements. There are enormous opportunities for confusion, overlap and duplication of effort. In addition to addressing the avoidance of these problems through planning, formal Memoranda of Understanding between agencies and organisations may be appropriate; for example, between core agencies with respect to the national issues, core agencies and national or local NGOs with respect to the roles and tasks they would be prepared to commit themselves to.

Within the EG there needs to be continuous, two-way, flow of information between those providing environmental advice to the response units and the IA sub-group.

A2.6 INCIDENT SPECIFIC PLANNING

The primary responsibilities of an impact assessment sub-group established during a pollution incident will be to develop an incident specific impact assessment strategy, and to *organise and coordinate* impact assessment rather than necessarily being the participating individuals.

A2.6.1 Membership

Impact Assessment sub-group plus:

- ◆ Central Government / devolved administration scientists (DTLR, NAWED, SEERAD, EHS)
- ◆ health specialists
- ◆ local government environment specialists
- ◆ RSPCA

An incident specific impact assessment strategy sub-group will be dependent on the preparative planning and baseline data assembled by both national and regional planning groups. Continuity of membership with these groups is advantageous.

A2.6.2.2 Tasks

The sub-group should:

- ◆ develop strategy to meet pre-identified key regional issues, priorities and tasks in the context of the specific incident
- ◆ initiate the prompt and effective collection of field data as planned and as appropriate to the incident
- ◆ identify shortfalls in the strategically planned assessment
- ◆ identify resource requirements
- ◆ contribute data to support response advice operational collection as required

It should achieve this through:

- ◆ direction of field data gathering resources
- ◆ liaison with core EG - input from the EG will be vital in informing strategic requirements
- ◆ liaison with parent organisations and devolved administrations

The sub-group should also contribute, via the core EG, to the provision of information for the media.

A2.6.2.3 Issues

Key initial considerations

Issues which will need to be addressed at an early stage will include:

- ◆ areas affected by the pollutant, and predicted to be contaminated in the future
- ◆ areas that have been, are being, or will be cleaned, the cleaning methods and the prevailing levels of contamination, and areas which should be left uncleaned (either as control sites or to self-clean)
- ◆ concentrations of pollutant in water, sediments and biota
- ◆ mortalities and morbidities of birds, fish, crustaceans, molluscs, marine mammals and other species
- ◆ background data on pollutant concentrations and affected species
- ◆ plans for monitoring longer term effects and recovery

- ◆ the scope to co-locate studies to ensure that the ranges of pollutant contamination, shoreline type and treatment will be covered
- ◆ shortfalls in coverage of the affected area and types of impact assessment
- ◆ resources available to implement planned assessment

A2.6.3 Technical issues

Impact assessment contingency planning should consider:

- ◆ Resource constraints
 - availability of competent technical specialists
 - competing demands on core agency staff with relevant local knowledge
 - regional and local variation in quality and quantity of baseline environmental resource information available (see A3.5.2)
- ◆ Common standards
 - health and safety requirements for fieldworkers
 - data recording protocols & storage formats (standard forms; standard electronic formats, position precision and map datums to ensure rapid and efficient information & data sharing)
 - data quality control standards

ANNEX 3 DATA

A3.1 INTRODUCTION

Any incident that results in pollutant or chemical pollution at sea will generate an immediate requirement for a range of reliable data collected before, during and after the incident.

Data will be required by the Environment Group to:

- ◆ enable risk assessment of implications for human health and environmental damage likely to result from pollution and / or response and clean-up operations, to be carried out to inform advice on response strategies
- ◆ enable the best possible advice to be provided to the response units, and hence obtain maximum environmental benefit from the response operations
- ◆ enable individual statutory agencies within the EG to fulfil their obligations in relation to the incident
- ◆ provide accurate, real-time information on any public health and environmental impacts of an incident to politicians, the media and the general public
- ◆ enable any short, medium and long-term impacts of a pollution incident to be described, quantified and evaluated

A3.2 DATA REQUIREMENTS

A3.2.1 TYPES OF DATA

Data requirements are likely to fall into the following broad categories:

- ◆ pre-incident baseline data
- ◆ data required for operational purposes (including: fate and behaviour of pollutant, risk assessment, provision of environmental advice, monitoring progress of the incident and of response / clean-up operations)
- ◆ data on the effects of the incident. Although primarily required for impact assessment in the short, medium and long-term (human health and natural environment), these data also provides vital feedback to operational advice

A3.2.2 EVOLUTION OF DATA REQUIREMENTS

Data requirements during and after an incident resulting in marine pollution are likely to evolve from the early to later stages of the incident, depending on the scale of the incident, the nature of the pollutant, the response operations and scale of impact assessment.

The immediate and urgent tasks at the start of an incident are, in order of priority:

- ◆ determination of human population at risk
- ◆ real-time 'stock assessments' of environment and wildlife threatened by contamination
- ◆ (re)establishment of data baselines to inform later impact assessment (requirements should be identified in planning stage)
- ◆ collection of data on immediate acute impacts on health and wildlife

The work of field data collectors will evolve as the incident progresses and may rapidly become impact assessment only. Collection of data in support of impact assessment of the chronic health effects, subtidal and water column, and intertidal sediment and biota must be anticipated as lasting for a significantly longer period than the at-sea and shoreline operational responses respectively.

A3.3.1 PRE-INCIDENT BASELINE DATA

Consideration should be given to the collation of the following physical, biological and environmental health information:

A3.3.1.1 Human health

- ◆ Population distribution and potential exposure to pollutant (including aerosols)
- ◆ epidemiology

Will require advice from a health specialist.

A3.3.1.2 Physical environment

- ◆ tides, currents, inshore bathymetry
- ◆ geomorphology and topography of shorelines, coastal hinterland and nearshore seabed.

A3.3.1.3 Conservation designations

- ◆ international and national nature conservation designations (including: SAC, SPA, Ramsar, Biosphere reserve, MNR, NNR, SSSI, ASSI, GCR etc)
- ◆ National Parks, Regional Parks
- ◆ Scheduled Ancient Monuments
- ◆ local conservation and other designations (AONB, RIGs, LNR, Heritage Coast,)
- ◆ other sites of nature conservation or cultural importance / sensitivity

A3.3.1.4 Geological features

- ◆ Geological Conservation Review (GCR) sites boundaries, priority areas and any associated images and data.
- ◆ Regionally Important Geological Sites (RIGS) – boundaries, priority areas and any associated images and data.
- ◆ Contact data for involving appropriate geological expertise
- ◆ All available shore profile data

A3.3.1.5 Biological information:

Distribution, size and seasonal variations in populations of:

- ◆ marine mammals (cetaceans, seals) & otters
- ◆ birds (seabirds, seaduck, wetland birds {wildfowl and waders})
- ◆ herptiles (marine turtles)
- ◆ fish
- ◆ shellfish and other marine invertebrates
- ◆ flora (eelgrass, algae, saltmarsh plants)
- ◆ potentially vulnerable terrestrial flora (including lichens) and fauna

Human and ecological food chains:

- ◆ livestock distribution & potential exposure to pollutant (including aerosols)
- ◆ fisheries

A3.3.1.6 Habitats

- ◆ Distribution of major intertidal and nearshore subtidal rock & sediment habitats (N.B.: inaccessible shores as well as beaches).
- ◆ Distribution of major coastal and terrestrial habitats on backshore and in coastal hinterland (e.g. dunes, saltmarsh, cliffs)

A3.3.1.7 Archaeology

- ◆ Coastal, intertidal and subtidal structures of national and local archaeological and historical importance (e.g. wrecks, sunken forests, harbour / quay walls, lime kilns, iron age forts, burial chambers)

A3.3.1.8 Cultural features

- ◆ Historic landscapes, listed buildings

A3.3.1.9 Pollutant benchmarks

- ◆ Background data on contaminant levels and variation in sediment, water, air, soil, biota (fish, shellfish, avian, mammal, terrestrial vegetation)

A3.3.1.10 Background information

In addition to specific datasets, a range of background information will be of potential value to the Environment Group.

- ◆ **generic technical information**
 - potential effects of different pollutants
 - response techniques and their physical and chemical effects
 - oil and chemical hazard data sheets
- ◆ **sensitivity of environmental features**
 - synthesised site specific assessments and predicted effects of pollutants and response / clean-up techniques on environmental features based on generic information and previous local & / or other relevant experience to support NEBA
- ◆ **response contingency planning**
 - access, booming, temporary waste holding etc
- ◆ **legal information**
 - legal requirements and obligations (e.g. FEPA, fisheries closure orders, consultation requirements for dispersant use within marine SACs, MNRs)

A3.4.2 OPERATIONAL DATA REQUIREMENTS

A3.4.2.1 Prevailing physical conditions

- ◆ weather and sea conditions;
- ◆ specific tidal flow information .

A3.4.2.2 Fate & behaviour of pollutant

The following data are essential to the determination of operational advice and impact assessment by the EG:

- ◆ the type & properties, position, extent, amount, condition and behaviour of pollutant at sea in real time
- ◆ actual and predicted future track of pollutant at sea over time
- ◆ areas of shoreline polluted and predicted as likely to become polluted and the predicted timings
- ◆ actual and predicted distribution and concentration of airborne pollutant and aerosols
- ◆ position, extent, amount, condition, behaviour and evolution of pollutant on shore

A3.4.2.3 Wildlife resource

Compilation of baseline data should identify most resources. However, part of that resource may be mobile or seasonal. Also baseline data may be sparse or not recent. Therefore, real-time 'stock' and risk assessments of wildlife and environmental features potentially at risk of impact may be necessary to support the provision of operational advice. Where necessary and when time permits, establishment of additional baseline data for locations threatened by pollution may be valuable to support later impact assessment.

Depending on local circumstances, the highest priorities for real time wildlife stock assessments are likely to include marine mammals, seabirds, seaduck at sea, and waders and wildfowl in estuaries and on the open coast.

A3.4.2.4 Response to salvage and pollution

Timely information on salvage and response options and plans, and their predicted outcome, from the SCU, MRC and / or SRC as appropriate is vital to enable the best possible advice to be provided to the response units by the EG / ELO's.

Prompt feedback on the efficacy and outcome of response actions taken is also vital. Although these data should be provided to the EG by the appropriate response unit, additional information on outcome of shoreline response from an environmental perspective should be collected by EG field workers.

A3.5 DATA ON THE EFFECTS OF POLLUTION INCIDENT

A3.5.1 Wildlife casualties

After human health, the greatest public and political demand for information will be the immediate, acute, effects of the incident on wildlife, especially bird and mammal casualties. The same information will also be vital for impact assessment.

A3.5.2 Fish, shellfish and other human foodstuffs

Data will be urgently required to ensure the safety any species used as human food which may be liable to contamination by the pollutant. In addition to the clearly obvious fish and shellfish, this may include species of seaweed or other intertidal plants, and agricultural livestock in the proximity of contaminated shorelines or downwind of and exposed to pollutant aerosols.

A3.5.3 Biological and habitat contamination and effects / impacts / mortalities

Data on the contamination of subtidal, intertidal and terrestrial habitats and their associated animals and plants will be required to enable:

- ◆ preplanned identification of environmental priorities for response or cleaning
- ◆ preplanned identification of environmental features requiring safeguard from inappropriate response and cleaning
- ◆ quantification and assessment of ecological impacts of incident, including human and non-human food chain effects

Although feedback from response units will provide a broad description of the contamination, it should be anticipated that, depending on local circumstances, specific data will also be required from an environmental perspective. The requirement for this data to inform impact assessment will almost certainly have a longer time scale than the response.

Although the specific purpose of SCAT is to provide shoreline clean-up assessments to an SRC, the information they generate will also be required for impact assessment.

A3.5.4 'Secondary' effects on wildlife and habitats arising from operational response

Data on the effects of response and cleaning actions on subtidal, intertidal and terrestrial habitats and their associated animals and plants will be required to enable:

- ◆ reassessment and refinement of EG advice
- ◆ determination of when agreed end points for clean-up response have been met
- ◆ quantification and assessment of human health and ecological impacts of the response (including effects on human and non-human food chains)

The requirement for these data to inform impact assessment will almost certainly have a longer time scale than the response

A3.5.5 Effects of pollutant and subsequent response on geology, geomorphology, archeology and cultural artifacts

Data on the contamination, effects of contamination and the effects of response and cleaning actions will be required to enable:

- identification of environmental priorities for response and advice on appropriate response
- identification of features requiring safeguard from inappropriate response and cleaning;

- quantification and assessment of impacts of an incident

A3.5.6 Specific data to support impact assessment

Assessment of the impact of a pollution incident will depend on the comprehensiveness and quality of the data listed above. Assessment will also depend on medium to long term monitoring of:

- pollutant contamination of water column, subtidal & intertidal sediment and biota, including species in human and marine food chains
- lethal and sublethal effects on species of ecological importance
- specific data reflecting local circumstances may be necessary; as far as possible, the scope of these data requirements should be identified in local EG contingency plans

A3.6 MANAGEMENT OF DATA

A3.6.1 OPERATIONAL DATA SOURCES

Operational data acquired by the EG will fall into three broad categories:

- data supplied by the MCA and response units;
- data collected by the EG, either directly or indirectly through support organisations or contractors;
- unsolicited data and information from the general public.

A3.6.2 MANAGEMENT OF DATA COLLECTION BY ENVIRONMENT GROUP

It is essential that the collection of data be carefully integrated within and between statutory agencies to minimise overlap, duplication of field effort and missing events and information. This integration is a vital part of contingency planning at both local and national scales. Data collection is likely to be managed both directly by the EG and indirectly by the individual EG members. EG staff dedicated to the management of field workers, the data collected and the data supplied by members of the EG and others will be essential.

Specific tasks of the EG may include:

- management of field workers, including briefing and debriefing, health and safety (additional detail is provided at Annex 9);
- management of directly collected data may include quality control, data entry, collation, interpretation and presentation;
- integration, collation, interpretation and presentation of data collected from sources external to the EG.

A3.6.3 DATA QUALITY CONTROL, STANDARDISATION OF SAMPLING AND ANALYTICAL PROTOCOLS

Accurate, reliable data are vital, both for operational and impact assessment purposes, as are the use of the most appropriate techniques for analysis of samples. Standardisation of survey, monitoring and analysis through nationally agreed protocols and quality control throughout an incident and subsequent impact assessment will be a crucial element in ensuring that the data collected are entirely credible.

National agreements between the competent authorities / agencies should be reached on the following:

- protocols on the sampling and analysis of water, sediment and biological samples for the levels of contamination by pollutant. (Protocols should include sampling methodology and sample storage as well as analytical techniques);
- protocols on the collection, identification and recording of dead mammals, birds, invertebrates and other wildlife casualties.

ANNEX 4 COMMUNICATIONS

A4.1 Communication links

Environment Group contingency plans should include planning for good communications. Communication systems must be rapidly put into place and activated, in order to facilitate the efficient flow of information on all aspects of the incident that concern the Environment Group, from the very beginning. Caution should be exercised, to avoid the appointment of too many individuals with liaison-only functions: direct links between key players will increase efficiency and understanding within the Environment Group and between the group and response centres, parent organisations and others.

In a marine pollution incident, the main communications links are likely to be:

- ◆ between the Environment Group members and between "components" of the Group (e.g. core Environment Group; wider Environment Group; Impact Assessment Group; support group) and response units (SCU, MRC, SRC, port or harbour Command and Control Center) via ELO's
- ◆ between Environment Group members and their parent organisations (to ensure that there is common understanding and consensus between the group and "parent" organisations)
- ◆ between the Environment Group and field workers, including SCAT members, consultants and contractors working to or on behalf of the group (debriefing/briefing; collation of field data; project management)
- ◆ between the Environment Group, the media centre and (where appropriate) other media links

A4.2 Planning for good communications

Environment Group contingency plans should:

- ◆ clearly identify communications roles and responsibilities, and identify direct communications links between, the Chair and deputy Chair and the ELO's/deputy ELO's.
- ◆ clearly identify members (in addition to the Chair, ELO's and their deputies) who would have a key role to play in communications within and beyond the Environment Group. Their roles, tasks and who they should communicate with and report to should be made clear.
- ◆ include alert procedures and identify who will be responsible for alerting members of the group. Contact lists (to include office and out-of-hours contact details) should be compiled and kept up-to-date.
- ◆ identify which members of the Environment Group will act as media spokespersons. It may be appropriate to include provision for the appointment of a media spokesperson, should this be required by the scale of the incident.
- ◆ include an agreed protocol for record-keeping throughout the incident: all communications made within the group, and between the group and response units and other external individuals and organisations should be recorded. It is vital that logs are kept of the following:
 - all telephone calls made and received;
 - all faxes sent and received;
 - all e-mails sent and received.
- Identify the facilities required for effective communication. The scale of technical and administrative resources needed in a major incident should not be underestimated. Consideration should be given to the following:

- assessment of existing telephone and fax lines in rooms identified for use by the Environment Group. Plans for installing additional telephone and fax lines should be drawn up if the existing facilities are considered to be inadequate. (Note: where possible, land lines should be used for calls so that logging systems are not bypassed).
 - dedicated, unlisted lines should be made available for ELO's in response units and the Chair/deputy Chair of the group.
 - provision of (or access to) teleconferencing facilities;
 - provision of e-mail facilities;
 - provision of administrative support, including access to photocopying facilities.
- ◆ Identify areas where reception on mobile phones is poor and investigate alternative means of communication e.g. VHF radio links, to ensure efficient communications between the group and people working in the field on its behalf.

ANNEX 5 RECORD KEEPING

A5.1 Introduction

It is essential that during any counter pollution operation all those involved keep records of what was done, when and why, to provide an audit trail. There will inevitably be pressure, frequently severe, to deal with new issues and problems and to relegate record keeping to a lesser priority. However, the importance of contemporary records cannot be over-emphasised. It is simply not realistic to rely on memory to reconstruct events in a fast moving and possibly lengthy incident. Responders must therefore arrange to keep adequate contemporary records which can be used to re-construct the incident at a later date when it may be necessary to fully justify advice provided by the EG or to recover costs.

A5.2 Records

The precise form of records will vary according to circumstances. There are two principal points to keep in mind:

- ◆ records may have to serve a variety of purposes and are the source material from which much information will be drawn
- ◆ since responders can not predict every purpose that records will serve in advance, record keeping should err on the side of too much rather than too little detail.

As a minimum, records should clearly show the information received, orders given, and any action taken as well as date and time details.

An EG should keep records of the following during the course of a maritime pollution incident:

- ◆ incoming and outgoing telephone calls
- ◆ faxes received and sent
- ◆ email messages received and sent
- ◆ text messages received and sent
- ◆ radio messages received and sent
- ◆ telex messages received and sent
- ◆ Dictaphone tapes
- ◆ photographs/ video taken or received
- ◆ copies of all HMCG pollution reports received
- ◆ minutes of meetings of the EG and its component sub-groups
- ◆ records of decisions taken by the EG
- ◆ records of advice provided to response units and action taken in response to the advice provided
- ◆ records of all costs incurred by the Group
- ◆ copies of all relevant press releases
- ◆ media reports (including video-recordings of TV news coverage)

A5.3 Incident Log

The EG should maintain an incident log which should include timely reports on the condition of the casualty, nature of pollution and rate of discharge, location and behaviour of pollutant, action by response units etc, since this information will be a major factor in determining the advice provided to response cells and in impact assessment planning. Charts should be maintained to record the extent of pollution and any response activity and copies should be taken at regular intervals to ensure there is a visual record of how the incident progressed.

A5.4 Recording decisions taken by the group

The EG should maintain a record of decisions made by the Group including:

- ◆ the views of individual Group members
- ◆ resolution of conflicting views
- ◆ accurate minutes of all EG meetings
- ◆ options/strategies considered

A5.5 Environmental advice provided to response units

The development and agreement of the EG views should be concisely and accurately recorded in writing. Records of how EG advice was received and acted upon by response units must be maintained.

In the case of a request for dispersant use, DEFRA will provide a written reply to the response unit, copied to the EG, either authorising or declining the request to use dispersants. Written approval may include conditions associated with that approval, and where the request has been declined, the reasons why it is considered that dispersants should not be used.

ELO's should keep specific records of:

- ◆ advice provided to response units and how that advice was received and acted upon,
- ◆ requests for information made by response units, how the information was provided and when
- ◆ requests for information made to the core EG on behalf of response units.

A5.6 Financial Records

Although the EG will not itself incur expenditure, its membership will do so and any collaborative EG activities likely to incur expense must be recorded. Records will be used to corroborate claims for reasonable expenditure.

Detailed financial records must be kept of:

- ◆ manpower (staff grades, rates of pay, time worked, location, work activity)
- ◆ resource costs (equipment, charge out rates, IT costs, communications)
- ◆ expenses incurred by EG members
- ◆ externally placed contract costs (specialist surveys, secretariat)

For the purpose of:

- ◆ cost recovery
- ◆ financial audit trail
- ◆ support of archive records
- ◆ official reports on spending by the public and private sector.

Comprehensive documentation and record keeping will assist the prompt preparation and payment of claims for compensation for expenditure incurred by EG members. As with any operation involving the expenditure of large sums of money, the usual rules of proprietary, accountability and the need for an audit trail apply.

A5.7 Record collation and archiving/ storage/ disposal

All EG records must be properly collated archived and stored. Procedures, responsibilities and archive location should be identified during standing EG planning.

ANNEX 6 WILDLIFE WELFARE

A6.1 Management of Wildlife Welfare

In the event that wildlife is affected by a pollution incident there will be public expectation and demand for action to take contaminated animals into captivity for cleaning and rehabilitation. It is imperative that actions taken in pursuit of wildlife welfare be:

- ◆ compatible with wider environmental safeguard requirements;
- ◆ minimise any risk of increasing impacts on uncontaminated or low risk wildlife;
- ◆ compatible with wildlife conservation.

The lead agencies for wildlife welfare action and management will be the RSPCA (England & Wales) SSPCA (Scotland) and USPCA (Northern Ireland) except where special local arrangements are in place (e.g. Shetland). These organisations have well developed and high standards for capture, cleaning and rehabilitation. It is important that the EG direct the welfare efforts of third-parties toward the recognised welfare bodies to ensure the maximum benefit for wildlife conservation.

A6.2 Marking and Release of Rehabilitated Wildlife

A6.2.1 Birds

- ◆ It is vital that numbers of all birds taken in by rehabilitation centres are recorded and their fate logged through the initial holding and eventual cleaning and release process.
- ◆ It is vital that rehabilitated and released birds are ringed (with detailed records kept of their condition and ringing information) so that if they are subsequently found, they will not be attributed to a new pollution incident. This is also essential for increasing our understanding of the effectiveness of the rehabilitation process and the success of different methods of rehabilitation.
- ◆ A protocol should be agreed between the RSPCA and EG (or statutory nature conservation agency if no EG is established) over the release of cleaned birds to be rehabilitated. Release locations should be in areas where the risk is minimal, and where there are suitable food supplies nearby.

A6.2.2 Marine mammals

- ◆ Agreed criteria and protocols for tagging / marking and release of rehabilitated marine mammals must be followed.
- ◆ Animals must be released in the areas from which they were taken if possible, or elsewhere by agreement with the and EG (or statutory nature conservation agency if no EG is established) with advice from the Sea Mammal Research Unit.

ANNEX 7 CHECK LIST FOR REAL TIME RESPONSE

ENVIRONMENT GROUP E.G. CHAIR GENERIC & BASIC ACTION CHECKLIST FOR MARITIME POLLUTION INCIDENTS

Incident	Date
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<i>On receipt of confirmed alert of incident requiring establishment of an Environment Group:</i>		
ACTION		Date / time completed
1	Establish & keep a log	
2	Obtain comprehensive briefing from MCA – see <i>ESSENTIAL INFORMATION CHECKLIST</i>	
3	Determine scale of incident: does EG need to be convened? YES – go to A NO – go to B	
A INCIDENT REQUIRES EG TO BE CONVENED		
A1	Establish contact with core EG members - brief / receive briefing - agree initial advice to MCA / response units - agree nominations for ELO's - agree location of EG - agree time to convene	
A2	Alert, brief and mobilise ELO's - SCU - MRC - SRC	
A3	Provide initial advice to MCA / response units	
A4	Ensure alert of all relevant bodies and individuals is initiated – – see <i>NOTIFICATION CHECKLIST</i>	
A5	Mobilise basic admin support	
A6	Relocate to EG location at agreed time	
A7	Obtain updated briefing from MCA or other key source of information	
A8	Establish & maintain direct communications with ELO's	
A9	Convene meeting of core EG – see <i>GENERIC FIRST MEETING AGENDA</i>	
A10	Provide comprehensive briefing, via ELO's, on health and environmental priorities and advice to response units.	
A11	Ensure all other identified & agreed tasks are actioned.	
A12	Ensure all essential EG information requirements are identified.	
A13	Ensure all essential information and data acquisition to inform operational advice is actioned.	
A14	Ensure an Impact Assessment process appropriate to the scale and potential effect of the incident is initiated.	
A15	Ensure further alert and mobilisation of additional staff and	

	resources continue as required.	
A16	Ensure nominated and additional deputies / substitutes for EG key & support roles are notified and alerted in good time.	
A17	Ensure establishment and mobilisation of necessary health and scientific personnel	
A18	Obtain regular briefings from MCA & ELO's	
A19	Give regular briefings to EG and room-briefs to support staff	
A20	Maintain close liaison with Impact Assessment Coordinator.	
A21	Ensure Health & Safety procedures for fieldworkers are implemented and managed	
B	INCIDENT DOES NOT REQUIRE EG TO BE CONVENED	
B1	Establish contact with core EG members and other key organisations relevant to incident. <ul style="list-style-type: none"> - brief / receive briefing <ul style="list-style-type: none"> use <i>ESSENTIAL INFORMATION CHECKLIST</i> - agree initial advice to MCA / response units - agree procedure in the event that incident escalates. 	
B2	Provide initial advice to MCA / response units.	
B3	Ensure alert of all relevant bodies and individuals is initiated – see <i>NOTIFICATION CHECKLIST</i> .	
B4	Establish and maintain routine exchange of information with MCA or appropriate response unit(s).	
B5	Consider transferring Chair to more relevant lead body if appropriate	
B6	Establish and maintain routine exchange of information with key EG members relevant to incident.	
B7	Provide comprehensive briefing on health and environmental priorities and advice to response unit(s).	
B8	Revise and update advice to MCA or appropriate response unit(s) as appropriate.	
B9	Stand by to increase alert and mobilisation of key personnel in the event that incident escalates.	

ANNEX 8

ENVIRONMENT GROUP GENERIC FIRST MEETING AGENDA FOR MARITIME POLLUTION INCIDENTS

1. Introductions
 - 1.1. Personnel
 - 1.2. EG accommodation – fire precautions / H&S issues
2. Incident briefing – use *ESSENTIAL INFORMATION CHECKLIST*
3. Key roles
 - 3.1. Allocation of key roles & confirmation of roleholders
 - 3.2. Briefing to EG on identities and locations of ELO's
4. Identification & analysis of immediate risks and threats
 - 4.1. Identification of public health risks
 - 4.2. Identification of immediate environmental threats
 - 4.3. Identification of immediate information requirements
 - fate & behaviour of pollutant
 - immediate operational advice requirements
 - immediate impact assessment requirements
 - 4.4. Identification of health and environmental priorities and initial advice to response units.
 - 4.5. Identification of immediate tasks & allocation of tasks
 - 4.6. Identification of further personnel and resources required
5. Establish timetable for Group briefings / meetings and standing agenda items
6. Establish communications protocol
7. Establish working procedure

ANNEX 9

ENVIRONMENT GROUP CHECKLIST OF ESSENTIAL INFORMATION TO BE OBTAINED DURING INITIAL ALERT FOR MARITIME POLLUTION INCIDENTS

Incident	Date
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Questions to MCA or notifying organisation:	
What is the nature of the incident?	
What is the pollutant? <ul style="list-style-type: none"> • specific name • composition 	
What is the scale of pollution?	
What is the exact location of the incident?	
What time did the incident occur?	
What is the current extent of the pollution? <ul style="list-style-type: none"> • aerial • at sea • on shore 	
Is there a known risk to human health?	
What is the risk of further pollution?	
What is the risk of the casualty / source of pollution moving elsewhere?	
What response action has been taken?	
What response action is planned?	
Who has been notified? - record on NOTIFICATION CHECKLIST	
Request copies of chemical / hazard data sheets for pollutant and all other potential pollutants which may be released following incident.	

