

Nuclear Free Local Authorities **briefing**



Date: 16th June 2010

No.75

Subject: Radioactive waste shipments through the Irish Sea – NFLA concerns over emergency planning arrangements and correspondence with the UK Maritime and Coastguard Agency

1. **Purpose of this briefing**

This NFLA briefing has been developed by the NFLA Secretary with assistance from the independent marine pollution consultant Tim Deere-Jones. It relates to ongoing correspondence between the NFLA and the UK Maritime and Coastguard Agency. It has particular reference to coastal local authorities in England, Scotland, Wales, Northern Ireland and the Republic of Ireland.

The briefing provides an analysis of a question and answer correspondence between the Maritime and Coastguard Agency and the Nuclear Free Local Authorities regarding aspects of at-sea contingency planning for incidents involving all grades/types of radioactive cargo, with particular emphasis on the cargos rated as INF 1 through to INF 3 and those vessels which are engaged in the transport of such cargo.

The exchange of correspondence was initiated by NFLA in June 2008, and the most recent reply from the MCA was received in March 2010. This reply has received considerable analysis and this briefing notes some potentially disturbing conclusions. NFLA Briefing Number 66 (see <http://www.nuclearpolicy.info> for further details) provides additional background to NFLA concerns over the safety of radioactive materials shipments and jurisdiction in the event of an at-sea emergency.

The Maritime and Coastguard Agency (MCA) is a division or agency of the UK Government's Department of Transport. The MCA is self-defined as the UK Government's "lead agency" for maritime incidents leading to, likely to lead to, or actually causing pollution of the marine environment. It would interact on Irish Sea incidents with the Irish Coastguard, part of the Irish Department of Transport's Maritime Safety Directorate.

2. **NFLA concerns over radioactive waste shipments in the Irish Sea**

NFLA Briefing No 66 highlighted concerns over the safety of the former BNFL nuclear fleet of ships, which have recommenced shipments of Mixed Oxide Fuel (MOX) from the Sellafield plant via Barrow to Japan and the Netherlands.

It also noted a lack of clarity over who was the lead agency for dealing with a

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radiation emergency on such a vessel as it goes through the Irish Sea. The MCA National Contingency Plan has very little detail of such emergencies, while the Republic of Ireland has some limited regional plans but no national marine contingency plan. What plans that exist concentrate on oil-based incidents.

3. **NFLA recommendations and further correspondence with the MCA**

NFLA Briefing No 66 outlined the following recommendations:

- NFLAs should seek to clarify with the UK and Irish Governments who controls an 'at sea' response to an accident involving a ship containing nuclear materials.
- NFLAs should urge joint emergency planning exercises between UK and Irish coastguards and appropriate national bodies and coastal local authorities considering the scenario of an accident involving a nuclear shipment.
- NFLAs in Ireland should encourage the national government and coastal local authorities to identify potential places of refuge on the Irish coast. The Irish government also needs to develop contingency plans for the sites that are identified.
- Coastal local authorities should be contacted to develop emergency plans considering issues such as clean up and response demands, the heavy investment of finance required, appropriate personnel, short and long-term response, transport units, decontamination technology, health staff and waste dump sites.
- Coastal local authorities should also be contacted to consider the affects to income if an accident leaves to issues such as fishing bans, reduced tourism, public health impacts and consumer caution on good produced in the area.

Correspondence has continued for a number of months with the UK MCA. The following sections outlines the analysis of the MCA response and the NFLA's conclusions. The text has also formed the basis of a letter to the MCA asking for their views on the NFLA's analysis and conclusions and seeking its response to this.

ANALYSIS OF MCA'S RESPONSE TO NFLA QUESTIONS:

1. *The NFLA has submitted a series of questions relating to the MCA's responsibilities and position, in relation to maritime transport incidents involving radioactive cargos.*

Specifically, these questions sought to clarify who is the Lead Agency with regard to maritime incidents involving radioactive cargos

1.1 The MCA has replied that, through its National Contingency Plan (NCP) for marine pollution, "the NCP is very clear on this matter. The Directorate of Maritime Services, MCA, is responsible for counter pollution operations including clean up at sea" and "the Dept of Transport Secretary of State's Representative (SOSREP) controls any salvage operation"

2. *The NFLA has submitted a series of questions relating to the UK Government's (Dept of Transport) response (through it's supposed lead agency the Maritime and Coastguard Agency) to maritime transport incidents involving radioactive cargos graded from IMDG 7 (the lowest category) through to INF 3 (the highest category) which includes High Level Radioactive Wastes, Irradiated Nuclear Fuels and Plutonium with no limit of maximum aggregated radioactivity.*

The answers that the NFLA have received demonstrate the following:

- 2.1 That, on behalf of the UK Government, the MCA states that the agency views the control of this type of incident as they would any incident involving a dangerous cargo.
- 2.2 That the MCA have reported to NFLA that the National Contingency Plan (NCP) for marine pollution incidents does not seek to describe every action that would be taken, because each incident would be risk assessed and the response would be tailored to the assessed risk
- 2.3 However, despite the MCA position noted in the previous paragraph, and although the MCA claims that the NCP is a generic and overarching guidance document (i.e. general, NOT subject specific or special), the NFLA notes that the NCP does contain no less than 30 paragraphs SPECIFICALLY describing a variety of technologies and strategies for containment, collection, handling, cleaning up and treatment of spilled oil.
- 2.4 NFLA have also noted that the NCP and it's various appendices, list those locations where anti oil pollution material is stockpiled
- 2.5 The NFLA notes that, although the NCP carries 30 paragraphs on oil spill response, it carries NO paragraphs related to similar such technologies and strategies for response to a radioactive incident.
- 2.6 The NFLA is therefore clarifying if the MCA, as the UK's lead agency for response to maritime pollution arising from radioactive cargo incidents,
 - a: believes that there are no intrinsic factors associated with a loss of radioactive cargo of any grade which demand a specifically tailored response and that such incidents can be managed and responded too in the same way as oil or chemical spills.
 - b: has a planned specific response to such an incident, and has any available technologies and strategies for containment, collection, handling, cleaning up and treatment of any radioactive pollution arising from a maritime incident and has a list of locations where anti radioactivity pollution technologies might be held.
- 2.7 The NFLA has noted the MCA's statement that each incident likely to result in marine pollution would be risked assessed.

The NFLA therefore assumes that, as is usually the case with risk assessments, there would be a basic subject/incident type risk assessment matrix for use when drawing up the risk assessments. Such risk assessments usually include consideration of environmental / ecological / wildlife outcomes, public health outcomes, commercial outcomes etc of both the "incident" and its aftermath, and any response to the incident and its aftermath.

The NFLA therefore asked the MCA for sight of any such risk assessment matrices.

- 2.8 The MCA has responded that it "does not produce individual risk assessments for specific scenarios".

Given such a response, is the NFLA right to conclude that the MCA have no specific risk assessment matrices for incidents involving radioactive cargos?

The NFLA also notes that, although generic (non-general) principles may be found in the NCP, the very unique properties of radioactive cargo and the very unique and complex interactions between the marine and atmospheric environment and man made radioactivity indicate an urgent need for radioactive cargo specific risk assessment matrices to be drawn up.

3. ***Having established that the MCA does not appear to have a specific response plan in place for dealing with an "incident" involving the potential or actual loss of a radioactive cargo, the NFLA raised the issue of what the MCA calls "Special Arrangements" which the NCP states are in place for dealing with such incidents involving the transport of higher grade radioactive cargos (INF 1, INF 2 and INF 3)***

3.1 In response the MCA replied that:
“The special arrangements in place include specific contingency plans for the vessels in question. These are “owned” by the ship operators and we would advise that questions regarding them would be more properly addressed to them”.

3.2 The NFLA also asked if the MCA are aware of any plans formulated and held by other bodies such as International Nuclear Services, BNFL, PNTL, the MOD and/or the RMT Hazardous Dangerous Goods Division.

The MCA replied that it:

“is aware that the other named bodies undertake their own internal planning processes which may involve the production of “plans” and the MCA contributes where appropriate”

And:

“This is properly a question for the bodies identified above and we would advise that questions on their planning activity should be addressed to these organisations directly.”

3.3 In the context of the following facts:

- a: the Special Arrangements (specific contingency plans for the vessels in question) are “owned” by the ship operators (BNFL, NDA, PNTL, INS etc)
- b: the MCA are not in a position, to share or divulge such plans with any other body
- c: the Plans are drawn up by the named bodies, NOT the MCA, and the MCA contributes to them only where appropriate

3.4 the NFLA concludes that:

- a: the MCA is NOT the lead agency with regard to the construction of contingency plans for ships carrying INF radioactive materials
- b: the MCA does not have sufficient expertise to draw up such plans and is therefore unlikely to have sufficient expertise to operate any relevant counter pollution or salvage operations under it’s own initiative
- c: in regard to contingency planning the MCA is therefore reliant on the producers/shippers of the radioactive cargo
- d: this casts considerable doubt on the MCA claim that it is the lead agency responsible for counter pollution operations in the event of a radioactive cargo incident
- e: this casts some doubt on the MCA claim that “the Dept of Transport Secretary of State’s Representative (SOSREP) controls any salvage operation” including those involving vessels carrying radioactive materials, especially those of INF 1 through to INF 3
- f: the evidence, so far acquired, strongly implies that the producers/shippers of INF cargo are, in effect, the Lead Agency.
- g: the evidence, so far acquired from the MCA, provides no practical or specific details of any counter pollution or salvage planning (operated by the MCA) relevant to maritime incidents involving radioactive cargo.

4. *In order to establish the state of readiness of MCA and other UK authorities for responding to maritime incidents involving actual and potential radioactive pollution, the NFLA has asked the MCA to provide details of all ship based exercises simulating accidents involving INF 2 and INF 3 cargos in both at-sea and in-harbour scenarios which have been carried out in UK waters .*

4.1 The MCA response pointed out that many non-MCA sources may have undertaken such exercises but that:

“from an MCA perspective the agency routinely undertakes local and regional exercises in conjunction with other stakeholders relating to the carriage of INF Cargo”

The MCA then provided a list of the three most recent such exercises as follows:

4.2 “A Deployment exercise conducted in 2008 in the Holyhead area, involving BNFL, Fishers, Port Authority, MCA and local Authorities”.

To date, no details of this exercise have been provided.

- 4.3 “A table top exercise that was held at Risley in 2009 which focussed on communications”
No details of this exercise have been provided, but it can be seen from the MCA description of this event that it was of little relevance to the original NFLA request for information about exercises “involving INF2 and INF3 cargos in both at-sea and in-harbour scenarios”.
- 4.4 “Finally in March 2009 MCA held an HNS training exercise involving a Fishers vessel in Barrow, followed by a table top exercise involving MCA, BNFL, HPA, Port, Local Emergency services and local authorities”

Describing this exercise, the MCA stated that :

“INS provided a vessel to allow the MCA to exercise its counter pollution and Hazardous and Noxious Response Teams. The exercise tested our response to a hazardous chemical spill”.

The MCA have provided a summary report of this exercise, which confirms that the simulation involved a theoretical container ship carrying non radioactive materials.

Evidently, in the context of incidents involving INF 2 and INF 3 cargo, this exercise must be regarded as, at best, a generic or general exercise and not a specific radioactive materials response. It is therefore not relevant to the specific NFLA request for information about exercises “involving INF2 and INF3 cargos in both at-sea and in-harbour scenario

5. *The NFLA has also asked the MCA for information relating to at-sea, in-harbour, water surface, water column, seabed, inter-tidal zone and tide line counter pollution exercises relating to simulated incidents involving the loss of INF 2 and INF 3 cargo.*

- 5.1 The MCA has not responded to this specific query. Is the NFLA therefore to conclude that no counter pollution exercises have been undertaken in respect of simulated pollution from loss or breach of INF 2 or INF 3 cargo?

6. *The NFLA has asked a series of questions relating to the provision of UK places of “Places of Refuge” for ships in distress carrying radioactive cargos in UK waters.*

The MCA have confirmed that, in the event of an at-sea incident involving a nuclear shipment, Safe Haven/Place of Refuge might be requested of the local coastal state and that, at the point of request, the risks to the local communities, the environment and the vessel would be taken into account.

- 6.1 *The NFLA asked: “what actual involvement of local coastal communities (including local authorities) takes place” concerning the designation of places of Safe Haven.*

The MCA have stated that:

“The UK has compiled a partial inventory of possible places of refuge using different criteria for both anchorages and ports / harbours”

- 6.2 The MCA have stated that:

“A case by case assessment is made as to the suitability of the location for a place of refuge to accommodate a ship in need of assistance”

- 6.3 The MCA have confirmed that in such an event, the MCA:

“would seek to involve and inform Local Authorities and coastal communities of the operational decision being taken”

- 6.4 The NFLA believes this answer (6:3 above) does not adequately demonstrate that local coastal communities and Local Authorities are involved in any of the decision processes surrounding the designation of ‘Places of Refuge’ in the context of vessels in distress and carrying radioactive cargo.

- 7: The NFLA notes that in May 2002, the 75th Session of the IMO Maritime Safety Committee proposed a framework for future work on places of Safe Haven, which proposed the preparation of guidelines for:
- a: the evaluation of risks, including the methodology involved, associated with the provision of places of refuge/Safe Haven and relevant operations in both a general and case-by-case basis
- and:
- b: **Actions expected of coastal States for the identification, designation and provision of places of Safe Haven together with any relevant facilities.**

- 7:1 *The NFLA has requested details of MCA progress with regard to:*
- a: *the evaluation of risks and risk assessment matrices*
 - b: *the identification, designation and provision of any facilities, restrictions and management strategies relevant to the provision of Places of Refuge for INF 2 and INF 3 vessels and cargos.*

- 7:2 The MCA replied to this request as follows:

"As we have noted previously a case by case assessment is made as to the suitability of the location for a place of refuge to accommodate a ship in need of assistance. There are some 800 ports and harbours in the UK Pollution Control Zone. All of these may be suitable to provide a place of refuge. This is in addition to bays and anchorages.

It is considered unwise to pre-emptively rule anywhere in, or out, as a potential place of refuge. The choice of a location as a place of refuge is driven by the circumstances of the incident, including such event-specific data as the weather, the geographical whereabouts of the incident and the type of threat posed by the vessel and its cargo. In the event of an incident involving a potentially hazardous cargo (such as an INF2 or 3 cargo) the specific nature of the cargo will form an integral part of the assessment."

- 7.3 Having studied this answer, the NFLA have asked the MCA if:
- a: a UK-wide evaluation of the generic or specific risks of provision of places of refuge to vessels in distress and carrying radioactive cargo?
 - b: any attempt has been made to construct risk assessment matrices for use in scenarios when place of refuge might be required for vessels in distress and carrying radioactive cargo?
 - c: any attempt has been made to identify, designate and provide any facilities, restrictions and management strategies relevant to the provision of Places of Refuge for INF 2 and INF 3 vessels and cargos?

The NFLA will inform NFLA members of the MCA response and contact the new UK Government and the Republic of Ireland Government to seek its views on this perceived emergency planning gap.