

MARINE OIL POLLUTION RESPONSE : NEW ZEALAND 1990

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This paper presents a snapshot of New Zealand's state of preparedness to respond to oil pollution of the sea, describes the forward planning currently under way, and outlines some of the current issues affecting oil spill response.

The State of the Nation?

Perhaps the best recent picture of NZ's oil pollution response capability was that of Gordon P. Lindblom, who visited this country for one week in August 1989, at the invitation and expense of BP, Caltex, Mobil and Shell. Neither the oil industry nor the Ministry of Transport accepted or agreed with everything that Mr Lindblom reported. His time in the country was short, and his audit of contingency planning and response capability was necessarily brief. Nevertheless, a reasonably convincing preliminary analysis emerged, with much that we can support and acknowledge.

Mr Lindblom is a consultant of Houston, Texas, with many years experience in the oil spill response business, including some involvement - at the request of Exxon - in the "Exxon Valdez" incident in Alaska's Prince William Sound.

Lindblom's summary is blunt and to the point:

- other than small harbour incidents, spill response capability is currently inadequate. It could perhaps handle 250 tonnes of oil at sea;

- there is an immediate need for a full-time response team of three to five persons, located close to the main equipment stockpile, to become fully trained operators of the gear, and trainers of other response personnel;
- we should provide soon far better preparation and operations guidance for all dispersant use; for at least 200m of boom and a skimmer at each port, with associated training;
- the current plan is not sufficiently specific or detailed (Lindblom appeared not to have viewed all the available documents, which go some way to meeting this criticism);
- a continuing central response committee should be established, to decide on activation of a response;
- training is critical, including simulated spills (1 to 3 days), equipment exercises, and seminars on specific parts of the plan (e.g. shoreline clean-up, communications).

Lindblom proposed extending capability to respond to a 1500 tonne spill (six times the present theoretical volume). This amount of oil is capable of spreading on water to cover 13 to 18 km² (5 to 7 square miles).

His analysis of the risk of spill on the NZ coast was unsophisticated, but of some interest. He pointed out that Whangarei (the Northern site of the country's sole refinery) and

New Plymouth (the West Coast, North Island centre of New Zealand's oil and gas fields) together accounted for 48 percent of tanker port calls, and 81 percent of transported oil volumes. With Wellington and Lyttelton the figures increase to 64.5 percent of port calls and 88.3 percent of the oil. Clearly, priority attention to these four ports would be cost-effective.

In Lindblom's view, the most dangerous sea route is the New Plymouth to Whangarei coastal trade around North Cape, which sees full coastal tankers facing prevailing onshore winds with little opportunity for refuge from stress of weather. The chance of collision on most parts of the New Zealand open coast is small, with relatively low levels of shipping.

His terms of reference sought comment on lessons that might be learnt from overseas experience. In his view, "small" things can cause the greatest problems, e.g., wrong phone numbers in contingency documents; lack of definite arrangements with contractors; capabilities stated wrongly in documentation. His other points included:

- a well-trained response team is the most important requirement;
- a single point for all decisions is not recommended;
- an aerial surveillance programme - at least three times a day
 - is essential;

- communications are extremely important, and need to be well organised, not simply throwing mobile phones at everybody on the scene;
- records are important. Note all activities, and keep transcription up-to-date;
- include government agency people in training programmes, to avoid conflicts in the field;
- utilise experience available in other parts of the world.

One of Lindblom's more telling comments, made almost in passing, is a comparison of clean-up costs:

- dispersal at sea : US\$25 to \$80 per barrel;
- containment and removal at sea (booms, skimmers, pumps, vessels, etc.) : US\$400 to \$500 per barrel;
- shoreline clean-up : US\$1000 to \$4000 per barrel.

Capability Increase

This report largely confirmed the feelings of the MOT's own oil pollution team; and motivated the oil industry to prompt the Government to accelerate the rate of change in this activity. A number of important steps have been taken to date:

- a review of the existing contingency plan was already scheduled for this year. Lindblom's report served to focus these efforts, and a representative working party was formed to develop national response capability and planning based on the 1500 tonne spill proposal. The group was originally to report by 31 July 1990;
- the Government agreed to capital expenditure of \$2.97 million for oil spill equipment in its 1990 Budget;
- the Maritime Transport Division has advertised for two additional staff to be based in Auckland as oil pollution officers;
- following the party's initial efforts and subsequent recommendation, an expert consultant to advise on responses and the national plan has been retained. The revision of the plan will now await his input;
- the Division's Captain Gerry Wright has attended an intensive oil spill clearance course in the UK during September.

The capital injection represents an approximate doubling of the value of equipment held by the Ministry. It goes some way to meeting the more urgent suggestions of Lindblom regarding additional equipment. We regard it as the beginning of a programme of several years duration to build up, at a much higher rate than any earlier years, the physical capacity to handle the target spill

size. Some convincing of the Minister of Finance will be required to maintain the newly established level of investment, but the source of funds already exists from shipping industry levies, and the "greening" of major political parties, plus the strong support of the oil industry, present a strong case.

The additional two specialist staff, probably with seafaring experience, will form the nucleus of a genuine response team, and will allow the critical training and simulation programmes to be developed and executed. Resource cut-backs in recent years had reduced manpower availability, and the capacity to train others, to a very unsatisfactory level.

The Maritime Transport Division has been very fortunate to obtain the services of Captain Mike Garnett as our consultant adviser on the contingency plan review. Captain Garnett was the on-scene co-ordinator at the Torrey Canyon incident, the world's first supertanker oil spill. He subsequently led many response teams around the world as a member of the International Tanker Owners Pollution Federation Limited team. He has already commenced a review of the extensive draft documentation for the revised plan, and will visit New Zealand probably early in 1991.

Issues

A period of flux in NZ Government Departments has left us in a position of picking up, re-shaping, and consolidating our oil spill responsibilities. Weaknesses and uncertainty have contributed to unease both in the Maritime Transport Division, and oil industry,

which is only gradually being dispelled by the current phase of positive action. There have been changes at many levels:

- as part of a review of resource management responsibilities and statutes, the Ministry for the Environment has become the principal adviser to the Government on national standards and future development of pollution control. The precise nature of the relationship between MfE and MoT has yet to be explored. MOT retains its operational responsibilities, and the co-ordination role with IMO;
- the provisions of the Marine Pollution Act 1974 were to be incorporated into a new Resource Management statute. This Bill did not proceed prior to the House rising on 6 September, and its future is uncertain;
- the marine pollution provisions of the 1974 Act were to be amended to allow ratification of MARPOL;
- the port reform programme which saw the dissolution of local harbour boards has placed oil spill responsibility inside harbours with Regional Councils, which are only now beginning to acknowledge their statutory roles. Co-ordination with the national contingency plan requires much effort;
- the Public Finance Act 1989 left doubt for many months over the precise status of the Oil Pollution Fund (\$10M approx.); its control, accessibility, and ability to earn interest.

Confidence is now restored, but questions concerning the basic nature of the fund and its treatment under legislation still merit consideration;

- oil companies and shipping lines have begun to question the two-tier system for pollution control, which sees them being charged to sustain individual port and national level responses through separate port charges and national levies;
- the nature of the understanding between Australia and NZ regarding mutual assistance is due for re-visiting.

The Future

The Maritime Transport Division is now confident that oil pollution response in NZ is on a positive path towards greater capability, better co-ordination, and more certainty. The future is, however, most strongly characterised by the considerable challenges faced by the small oil pollution team. The sheer volume of work is daunting, but the quality of the preparation and support is higher than at any time in the past. In partnership with the oil and shipping industries, regional government, central government departments, international organisations and the Australian Government, we look forward to improvement and refinement on almost a month-by-month basis. It is an exciting time of development and expansion, which none-the-less could well do with an element of good fortune to ensure that the excitement level does not extend to a truly major spill.