

UK RESPONSE PLAN AND RADIOACTIVE INCIDENT MONITORING NETWORK (RIMNET) 3: BRIEFING NOTE

1. What is the UK Response Plan?

The UK Response Plan is the UK Government's national contingency plan for dealing with the effects on the UK of overseas nuclear accidents. It is a composite plan, designed to co-ordinate the actions of the various Government departments and expert agencies that would be involved in the response to such an accident. Operation of the Radioactive Incident Monitoring Network (RIMNET) system is one element of the Plan.

2. What is RIMNET?

RIMNET is the UK Government's national radiation monitoring and nuclear emergency response system set up following the Chernobyl accident as part of its arrangements for dealing with the effects on the UK of overseas nuclear accidents.

3. What is DECC's role as the lead Government department?

DECC's role as the lead Government department for overseas nuclear accidents is to:

- co-ordinate the Government's response;
- keep Minister's and Parliament informed of that response;
- provide information to the public and the media at the national level;
- operate the RIMNET system.

4. What is the Technical Coordination Centre (TCC)?

The TCC is the centre from which the Government's response to an overseas nuclear accident will be coordinated. It will be attended by representatives of the Government departments, agencies and other bodies engaged in the response.

5. What are Assessment Centres?

Assessment Centres are places where Government departments and other bodies carry out assessments of radiological monitoring data in their particular areas of responsibility. The results of these assessments will be passed to the TCC to guide the Government response to the accident.

6. What is the role of other Government departments?

Other Government departments will continue to discharge their normal statutory responsibilities throughout the response to the accident. They will provide assessments and advice in those areas to the TCC to guide the Government response.

7. What is the role of Health Protection Agency?

HPA (formerly NRPB) advise Government departments on the interpretation of radiological monitoring data, in particular dose assessments. It will make measurements of its own and enter the results onto the RIMNET database. It will also be represented at the TCC.

8. What is the role of the Met Office?

Met Office will provide predictions of the movement of the radioactive cloud from an overseas nuclear accident, using meteorological data and advanced computer models run at its Exeter headquarters. It will also supply weather radar data to help identify areas of possible radioactivity washout. Met Office will also be represented at the TCC.

9. What role will the UK nuclear industry play?

The UK Nuclear Industry could supply radiation monitoring data to the RIMNET database in the event of an overseas nuclear accident. DECC also have access to the UK nuclear industry emergency response information system.

10. Planning of RIMNET

DECC is advised on the planning and operation of RIMNET by a national committee known as the Radioactive Incident Monitoring Coordinating Committee, or RIMCC. This committee consists of representatives from Government Departments, Devolved Administrations, the Health Protection Agency, the Met Office, local authority associations and the nuclear industry.

11. Notification of overseas nuclear accidents

DECC would expect to learn of an overseas nuclear accident via one of the official international early notification arrangements set up following Chernobyl. These arrangements are maintained by the International Atomic Energy Agency (IAEA) and the European Union (EU). The UK Government also has a number of bilateral early notification arrangements, including France, Belgium, Netherlands, Norway, Russia and Ireland. In practice information and an unofficial notification may also come via the media.

12. Will RIMNET provide early warning of an overseas nuclear accident?

No. RIMNET is not an early warning system; the fixed monitors record what is happening at the site at the time. Any formal warning will come via the International Atomic Energy Agency, European Commission or through bilateral notification arrangements. RIMNET is an independent monitoring system which provides an alert mechanism. It also provides access to forecasts of the areas of the UK likely to be affected by any overseas nuclear accident based upon Met Office data and models.

13. Are there enough fixed monitors?

Yes. There are enough fixed monitors to detect a dispersed radioactive cloud of the kind that is likely to stem from an overseas nuclear accident by the time it reaches the UK. In practice monitoring by the UK nuclear industry and other approved suppliers would supplement the RIMNET fixed monitor data.

14. What is the RIMNET Approved Data Supplier Scheme?

The RIMNET Approved Data Supplier Scheme enables non-Government bodies to supply monitoring data to the RIMNET database. In return Approved Data Suppliers will receive, via electronic mail, Government alert messages, information and advice bulletins, and summaries of other data held on the RIMNET servers relevant to their local areas and fields of interest. Only organisations which can demonstrate ability to make radiological measurements to the necessary RIMNET standards will be approved. Standard national protocols will apply to the collection and supply of data.

15. How will local authorities be kept informed?

Arrangements have been negotiated with the local authority associations to provide regular information and advice bulletins to about 70 host local authorities via electronic mail. These local authorities are normally at the county level, and they will cascade the bulletins to other local authorities in their area.

16. Will RIMNET be able to detect "hot spots"?

RIMNET provides access to weather data which indicates where rain has or is or is likely to occur. This in turn indicates whether there could be high levels of radioactivity washout ie possible "hot spots". Mobile monitoring teams will be directed to areas of particular concern.

17. Does the UK Response Plan allow for evacuation, shelter and distribution of iodate tablets to the UK population?

No. The conclusions of a review following Chernobyl suggested that such measures will not be needed for overseas nuclear accidents.

18. How will the public be kept informed?

Information will be issued to the media and the public by the News Coordination Centre maintained by the Cabinet Office and supported by DECC Press Office. Once a notification has been received RIMNET can be used to brief the Press Office on the nature of the accident, the likely direction of movement of the radiation cloud and its potential impact on the UK. Thereafter, the UK environment will continue to be monitored using the UK Response Plan and RIMNET arrangements, and appropriate advice to the public compiled. Information will be made available in regular press releases and briefings, in electronic mail bulletins to official bodies, both within and outside Government so that it can be passed on to the public in their homes and workplaces.

19. Why is RIMNET equipped with gamma rather than alpha detectors?

The most significant effects of overseas nuclear accidents on the UK will be through gaseous or vaporised gamma emitters. Alpha particles are associated with heavy metals which, under accident conditions are released as particulates. Unless extremely fine, these will be deposited close to the scene of the accident and not reach the UK.

20. How reliable is the RIMNET system ?

The RIMNET system has been designed to have no single point of failure. The main computers are duplicated, and allow for switchover in the event of failure. The system has its own protected power supplies. Extremely tight performance and response time criteria are written into the system maintenance contract.

21. How safe are overseas nuclear reactors?

Operation of nuclear reactors in Western Europe is subject to strict design, operational and regulatory standards laid down by the European Union and the International Atomic Energy Agency. The operation of nuclear installations in Eastern Europe is also subject to such standards since Chernobyl. A lot of western expertise in these areas has been passed on through aid arrangements. This means that the chances of accidents should be diminishing all the time. Nevertheless the UK Government remains alert to the possibilities of such occurrences, hence the UK Response Plan and RIMNET provisions.

22. How will UK Response Plan and RIMNET arrangements be tested?

RIMNET participates in regular exercises and tests of nuclear emergency response arrangements. On average, 4-5 civil and 4-5 military exercises per year, of which at least 1 is a national-level fully integrated exercise involving all bodies. International exercises tend to be held on an 18 month cycle to replicate summer and winter conditions because meteorological effects on deposition vary.

23. Will the RIMNET system be used for routine radiological monitoring data?

Yes. A database of routine monitoring data supplied by Approved Data Suppliers is maintained to enable comparison of normal results with data collected during an incident situation. In addition, radiological monitoring data is routinely exchanged with Europe under EURDEP: the European Union Radiological Data Exchange Platform.

24. Incidents close to or within the UK

RIMNET was designed to support the response to accidents within the UK for which there are separate and well-tested site-specific arrangements. The use of RIMNET, modelling and communications facilities in domestic civil, military and CBRN emergency planning has become a regular feature of exercises. The UK should receive early notification of any accidents within Western Europe through the EU and IAEA early notification arrangements, and would track and monitor any effects on the UK using RIMNET.

25. Local information

The RIMNET data, both from fixed monitor and supplementary data, input will provide the basis for issuing local information.

26. Staffing

DECC maintains, through the Met. Office, a RIMNET operations team consisting of five staff. They are trained in overseas nuclear accident response procedures and use of the RIMNET system. An on-call rota ensures that staff are contactable at any time, 24hours/365 days a year. The RIMNET staff have access to the additional radiological expertise of other agencies. There are well-rehearsed procedures for calling in other DECC and other agency staff as necessary to deal with the response to an overseas, or indeed any, nuclear accident.

27. Quality Assurance of RIMNET data

The RIMNET fixed gamma dose rate monitors are subject to annual calibration, and interim checks. Approval of supplementary data suppliers will be based on appropriate quality assurance schemes coupled thereafter with data supply performance. These assurance schemes include NAMAS accreditation by the National Physical Laboratory, accreditation under the local authorities LARRMACC scheme and registration as HSE Approved Dosimetry Services.

Note: NAMAS stands for National Measurement Accreditation Service. LARRMACC stands for Local Authorities Radiation and Radioactivity Monitoring, Advice and Collection Centre.

28. Why is DECC the lead department for UK nuclear accidents?

Lead Department responsibilities are allocated on the basis of the nature of the accident and the normal day-to-day business of individual Government departments. In the case of a UK nuclear accident, the primary activity is to bring the accident under control and thus DECC as sponsor department for the nuclear industry, assumes lead responsibility.

29. Use of RIMNET for response to UK nuclear accidents

While the UK Response Plan provides the response framework for a nuclear accident abroad there are separate and well-tested plans for dealing with nuclear accidents within the UK. The RIMNET design makes provision for other lead departments to use the system to assist with the response to UK nuclear emergencies.

30. Will RIMNET detect accidents in the UK?

The RIMNET monitors will detect increases in gamma dose radiation levels at the fixed sites irrespective of their cause. However, we would expect any increases due to accidents at UK nuclear sites to be notified by the site operator and detected first by site perimeter monitoring systems. RIMNET monitor sites were

deliberately positioned away from nuclear sites to avoid false alarms arising from authorised discharges, and duplication of monitoring resources.

31. Would RIMNET be able to deal with the effects of a nuclear strike on the UK?

It may, depending on location and severity of the strike, but RIMNET has not been designed for this purpose. RIMNET would however, be used to assist the MoD response to such an occurrence.

32. Will RIMNET be used to deal with other types of national emergencies?

The RIMNET system has been designed specifically to deal with overseas and other nuclear incidents. However, its use for response to other types of emergency, eg, widespread flooding or storm damage, whilst not being ruled out, will be contemplated only where it clearly does not compromise this primary system function, ie, nuclear emergency response.