



ONR GUIDE			
Off-Site Emergency Arrangements			
Document Type:	Nuclear Safety Technical Inspection Guide		
Unique Document ID and Revision No:	NS-INSP-GD-067 Revision 0		
Date Issued:	01/05/2018	Review Date:	01/05/2021
Approved by:	Kulvinder McDonald	Superintending Inspector	
Record Reference:	1.1.3.775. (2016/485710)		
Revision commentary:	N/A - New TIG		

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1. INTRODUCTION

- 1.1 ONR is the enforcing authority for The Radiation (Emergency Preparedness and Public Information) Regulations (REPPIR) 2001 in so far as they are related to the operation of a nuclear site designated under REPPIR. ONR's regulatory function is fundamental to the UK Government's confidence and ability to afford protection and reassurance to members of the public on all nuclear safety matters.
- 1.2 The central aims of REPPIR are to:
- establish a framework for the protection of the public through emergency preparedness for radiation accidents with the potential to affect members of the public, from premises and specified transport operations;
 - ensure the provision of information to the public in advance, in situations where a (REPPIR) radiation emergency might arise, and in the event of any kind of radiation emergency (however it may arise).
- 1.3 This TIG provides guidance to ONR inspectors in their duty to enforce the relevant sections of REPPIR that relate to the off-site emergency arrangements. Guidance on inspecting the operator's (licensees) emergency arrangements under LC 11 and link to REPPIR regulation 7 is given in TIG NS-INSP-GD-011.

2. PURPOSE AND SCOPE

- 2.1. The purpose of this guidance document is to promote a consistent approach for compliance inspections of off-site emergency preparedness arrangements and tests of those arrangements (emergency exercises, Regulation 10(1)), under REPPIR.
- 2.2. This TIG focuses on the compliance of relevant duty holders in relation to the off-site plan; the principal duty holder being the local authority (as defined under Regulation 2(1)) for the area in which each nuclear site is situated¹ although regulatory interaction with other organisations and agencies with a supporting role may also be necessary.
- 2.3. To discharge ONR's duties under REPPIR, inspectors determine the adequacy of off-site emergency arrangements by:
- carrying out inspections of local authorities' compliance arrangements, the main duty holder responsible for the off-site plan,
 - assessing emergency plans and arrangements, and/or,
 - assessing emergency exercises that demonstrate the implementation of the off-site plan.

3. RELATIONSHIP TO RELEVANT LEGISLATION, SAPS, TAGS, AND OTHER STANDARDS & GUIDANCE

- 3.1. The Radiation (Emergency Preparedness and Public Information) Regulations (REPPIR) 2001 is a relevant statutory provision (SI 2001 No 2975) made under The Health and Safety at Work Act (HSWA 1974).
- 3.2. The Civil Contingencies Act 2004 (Contingency Planning) Regulations 2005 (CCA) and the Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Regulations 2005 place a responsibility on Local Authorities to produce plans for responding to any emergency. As CCA was introduced after REPPIR, CCA states that where REPPIR

¹ REPPIR also applies to non-nuclear sites, which are regulated by HSE but ONR has no vires for these sites, nor are any of them (so far) required to produce REPPIR off-site emergency plans.

applies, CCA does not.² ONR is a Category 2 responder under CCA. CCA does not provide ONR with any powers of enforcement. Nevertheless, as CCA describes generic response arrangements, inspectors should consider CCA as Relevant Good Practice (RGP) for the purposes of enforcing REPPiR.

- 3.3. There is a wide range of relevant UK and International guidance, with the most important references provided below:

UK Guidance

- HSE - [A Guide to the Radiation \(Emergency Preparedness and Public Information\) Regulations 2001](#) (2002)
- UK and Scottish Government - [National Nuclear Emergency Planning and Response Guidance](#) - (October 2015) – A suite of Nuclear emergency planning guidance documents produced to help local planners, Whitehall departments, devolved administrations and agencies write effective plans.
- Cabinet Office Guidance – [Emergency Response and Recovery](#) (CCA ER&R). Guidance for staff of responder agencies, particularly senior officers or managers involved in emergency response and recovery preparations.
- Scottish Government - [Preparing Scotland: Scottish Guidance on Resilience](#) (March 2012) – suite of guidance to assist Scotland plan, respond and recover from emergencies.
- JESIP - [Joint Doctrine: the interoperability framework](#) - guidance for commanders and staff for multiagency response
- ONR [Technical Inspection Guide On-site emergency arrangements](#) (LC11)
- ONR [Nuclear Security Technical Inspection Guide CNS-INSP-GD-001](#).
- Cabinet Office – [STAC Guidance](#) (April 2007) – note for local responders on establishment of a Scientific & Technical Advisory Cell.
- Scottish Government - [Preparing Scotland Scientific and Technical Advice Cell \(STAC\) Guidance](#) (February 2013) – guidance for Scottish responders on establishment of a STAC.

International Standards and Guidance

- IAEA - [Preparedness and Response for a Nuclear or Radiological Emergency General Safety Requirements No. GSR Part 7](#) (Nov 2015) – an IAEA safety standard
- IAEA - [Arrangements for Preparedness for a Nuclear or Radiological Emergency GS-G-2.1](#). (May 2007) – an IAEA safety guide

4. PLANNING AN INTERVENTION STRATEGY

- 4.1. The extent of interaction with local authorities should be decided according to a number of factors including:
- the magnitude of the hazard; this information is available in the Report of Assessment (RoA) which summarises the Hazard Identification and Risk Evaluation (HIRE).
 - changes to the magnitude of hazard (and therefore the RoA) or the start of a new activity.

² CCA Regulations Reg 12(e) states that Cat 1 responders have no duty under CCA in relation to an emergency classed as a “radiation emergency” (under REPPiR) as they are already covered by REPPiR. CCA requires local authorities, as Cat 1 responders to risk assess emergencies but not necessarily plan for them.

- the potential impact of an off-site release on the public; for example, the population density within the Emergency Planning Area (EPA), the complexity of the off-site plan, or the number of vulnerable persons in the EPA³,
 - the maturity of the Duty Holder and/or their record of compliance,
 - the amount of recent ONR interaction with the duty holder/knowledge of duty holder's compliance, and
 - whether there have been significant changes to the off-site plan e.g. a new SCC, a redetermination of, or changes within the EPA etc.
- 4.2. Under REPIIR, duty holders (Local authorities) are required to review and where necessary revise and test their plans at least every three years. ONR may choose to review off-site plans or observe off-site (level 2) exercises although there is no legal requirement to do so. Some local authorities could require more regulatory attention simply because they have more than one nuclear site in their area and each site area must have its own off-site plan.
- 4.3. Where inspections of local authorities' arrangements are carried out, sufficient time should have elapsed for lessons learnt to be analysed and implemented before further inspections are undertaken.

5. UNDERTAKING AN ASSESSMENT OR INSPECTION OF THE ADEQUACY OF OFF-SITE PLANS

- 5.1. REPIIR requires that off-site emergency plans are *adequate* and therefore it is appropriate that ONR undertake compliance inspections to assess the adequacy of the local authorities' arrangements, targeted at those regulations upon which the plan is based - regulations 9 to 11, 13, 16 & 17 which are aligned to Schedules 7, 8, 9 & 10. The following section highlights, and where necessary interprets, the regulations and relevant good practice for the purpose of carrying out inspections. Annex A tabulates the statutory requirements and areas of RGP and may be used as an aide memoire for the planning of inspections. A sampling approach should be used.
- 5.2. The scope of ONR's inspection or assessment should cover, as a minimum, the local authority's arrangements as the principal duty holder for producing, maintaining, reviewing and testing the plan. Delivery of the plan relies heavily upon the interface with, and arrangements of, other organisations. ONR inspectors may choose to call in representatives from other organisations (eg one or more of the emergency services or public health services) to understand multiagency working arrangements, integration of information, and compliance with individual agencies' duties specified within the off-site plan. Evidence of processes, arrangements or decisions in the form of documents should be requested in advance of, or during an inspection to ensure there is an audit trail to underpin findings.
- 5.3. The findings from an inspection should be recorded on an [Intervention Record](#) and the executive summary published on ONR's website. An ONR inspection rating should be determined in accordance with the [ONR Inspection Rating Guidance](#) and any regulatory issues should be raised if required.
- 5.4. The following areas are recommended for inspection:

³ The Emergency Planning Area (EPA) is the area which, in the opinion of *the Executive* (ONR), any member of the public is likely to be affected by a radiation emergency. The EPA is sometimes referred to as the Detailed Emergency Planning Zone (DEPZ).

Governance and Management Arrangements

- 5.5. The REPPiR regulations impose duties upon the local authority to prepare the off-site plan, consult with other organisations and test the off-site plan. When inspecting local authority arrangements, the local authority should be able to identify formal governance arrangements, clear lines of responsibility and oversight within the local authority and provide clarity about the assumptions and interactions with other agencies and organisations. Arrangements may involve local working groups (eg a Resilience Forum) to enable collaborative planning.
- 5.6. The process of producing off-site plans should be embedded within the local authority's management systems. There should be arrangements for the review, consultation, amendment and formal approval of the off-site plan with clear governance arrangements and oversight. Arrangements to test the plan and implement lessons learned following exercises, events, and other learning opportunities (e.g. other local authority's exercises) should be evidenced including root cause analysis and prioritisation where appropriate.
- 5.7. The plan should include consideration of a 'baseline' for an adequate response, for example, minimum staffing levels during and outside normal working hours, critical responders, facilities, communication systems etc.

Maintaining Emergency Plans

- 5.8. Inspectors should confirm that off-site emergency plans have been reviewed and updated, as necessary, at intervals not exceeding three years, as required by REPPiR (regulation 10(1)).⁴

Testing Arrangements

- 5.9. REPPiR regulation 10(1) requires that the plan is tested at intervals not exceeding three years. Inspectors should confirm that there are arrangements in place that state how frequently and in which circumstances the plan is tested, and for each test, the scope of that test. Tests should normally include all the organisations involved in the response. See section 6 on assessing exercises for more details.

Response Role Training

- 5.10. Inspectors should confirm that all those expected to participate in the implementation of an off-site plan, are provided with suitable and sufficient information, instruction and training (regulation 9 (14)), including refresher training. Inspectors should identify how regular training that is specific to emergency response roles is aligned to relevant good practice. For example, REPPiR guidance recommends site familiarisation visits for off-site organisations with an on-site role to play in the emergency (para 279a). The ONR inspector should confirm by examination of records that such training has been undertaken.
- 5.11. Level 2 (off-site) and level 3 (off-site, including national response) emergency exercises carried out under REPPiR should not be used as training but can be used to refresh skills and validate training. All participants in an exercise should arrive at the exercise with a good understanding of their role, the roles of other organisations both inside and outside the SCC, and a good understanding of the off-site emergency plan commensurate with their roles and responsibilities.

⁴ REPPiR also specifies a number of arrangements for new off-site plans.

Suitably Qualified and Experienced Persons (SQEP)

- 5.12. Those involved in the response to an emergency should be suitably qualified and experienced. Descriptions of each response role should be in evidence and clearly define the key responsibilities of the roles as well as the required experience, training and skills to fulfil the role. Associated Relevant Good Practice (RGP) for the SCG and STAC Chairs and members is tabulated in Chapter 6 of [The Nuclear Emergency Planning & Response Guidance Part 2 – Response](#).

Facilities & Equipment

- 5.13. In accordance with REPIR Guidance (paras 7 to 10), the plan should identify which facilities and equipment are required for the response. Information should be available that explains how facilities and equipment are to be used and maintained both during an emergency or exercise and between use including:
- provision for all relevant organisations to be co-located at Strategic and Tactical Co-ordinating Centres,
 - provision for sufficient access to online platforms /email systems to allow sharing of information with all the relevant organisations in real time eg Resilience Direct,
 - a plan for maintaining facilities and equipment,
 - arrangements for the provision of GIS mapping, and
 - a system to ensure that contact information for all organisations is kept up-to-date.
- 5.14. Any failure by the equipment or with the facility could potentially impact on the ability to respond without delay and inspectors should identify whether there is back up capability in case of failure of essential equipment, whether this is sufficient and whether it is maintained.

Off-Site Plan Scope

- 5.15. It should be confirmed that the off-site plan makes provision for responding to and limiting the consequences of all reasonably foreseeable radiation emergencies (as required under REPIR Schedule 7 Part 2, b). Any assumptions or external technical advice used to inform the plan should be stated or referenced.
- 5.16. In the majority of cases, response activities will be the same regardless of whether the emergency is initiated by a safety (e.g. fault or external hazard) or a security-related (adversarial act) event. It should be noted that there may be some differences to the response with security-initiated events, for example, the police will have a role in pursuing perpetrators and gathering evidence.
- 5.17. The plan should identify the expectations for the response structure. It should also highlight any interdependencies such within the associated command and control arrangements, the critical lines of communication throughout the emergency as well as the responsibilities of all the key people, roles, committees and organisations involved in the response.
- 5.18. It is good practice to consider issues that might reasonably be faced in a real emergency that would not necessarily be seen in a test of the arrangements, for example, traffic issues caused by the incident itself blocking routes to the SCC, or

severe weather as the initiating event, and measures to mitigate these should be clearly articulated.

Consultation and Collaboration

- 5.19. REPIIR (Regulation 9(12)) requires the local authority to consult all organisations that have a role in the emergency response in the drafting or updating of the off-site plan.
- 5.20. In accordance with this requirement, inspectors should confirm that there is a systematic process in place to ensure that interdependencies between the duty holder's arrangements, those of other relevant organisation's and the off-site plan are maintained. There should be records to show how consultation is carried out (e.g. through briefings, committees etc.) and the outcomes. Consultation methods should allow reasonable opportunity to allow a considered response. Inspectors should focus most attention on organisations with the more significant roles, but also ascertain that all statutory and relevant non-statutory organisations are engaged.

Warning and Informing

- 5.21. Under REPIIR, the off-site plan must contain arrangements for providing the public with specific information in the event of a radiation emergency and the detailed information on any actions that they need to take. The plan should describe how organisations will work together during an emergency to ensure that there is one clear consistent message, and how they will work with conventional and social media.
- 5.22. The plan should specify the means by which the dissemination of key information will be achieved, including when normal routine channels of communication may not be available and identify how vulnerable groups will be reached in an emergency. Pre-prepared, automated messages and templates to inform the public of statutory (Schedule 10) and other key messages can facilitate a speedy response and may form part of the off-site plan.

Consideration of Dose for Emergency Responders

- 5.23. Under REPIIR (Regulation 14), the off-site plan must include arrangements for all potential emergency exposures. Any potential radiation doses, specific to any roles that may be required in an emergency either on or off the operating site, should be pre-assessed and clearly stated. The outcome of these assessments should be agreed between the operator, the emergency services and any other relevant party.
- 5.24. When reviewing plans, ONR inspectors should take particular note of REPIIR Schedule 8 Part 1 which requires the justification of any interventions that may be required to respond to the emergency to prevent or decrease the exposure of individuals to radiation. Equipment, actions and training should at all times be predicated on restricting and managing exposures.
- 5.25. All mitigatory activity should be appropriate to the risk. The details of how each intervention is triggered, which actions are carried out, and by which person or role should be considered. Examples of interventions may include on-site fire-fighting, drivers who are evacuating the public, or the distribution of Potassium Iodate Tablets (PITs). The [NNEPRG guidance](#) (section 2 para 5.1.2) describes a way of assessing the appropriateness of countermeasures using the principles of justification, optimisation and avoiding deterministic effects.

6. ASSESSING EMERGENCY EXERCISES

- 6.1. ONR's assessment of an emergency exercise provides evidence towards determining the adequacy of a plan but cannot provide conclusive evidence of compliance with the requirements of REPPIR. This should be sought through inspection and by reviewing detailed of the plans themselves (covered in section 5).

Exercise Planning – early engagement

- 6.2. Early engagement by ONR in exercise preparation should ensure that an exercise provides a sufficient level of challenge and that the scope adequately tests particular functions or facilities. It is often difficult to change the scope of an exercise at a later date due to the logistics associated with the large number of organisations involved. Overarching exercise objectives should be agreed early in the planning stages and each participating organisation should similarly identify its own exercise objectives.
- 6.3. The local authority, as the principal duty holder, should be fully engaged in exercise planning, and preferably lead the planning or act as an 'intelligent customer'. As required under REPPIR Regulation 11(3) all organisations that have a role in delivering the plan should contribute to the exercise planning process.
- 6.4. In line with [NNEPRG Annex J](#), the test of the plan requires *all* significant parts of the plan to be tested; i.e. notification, facilities, key responders involved, strategic, tactical, warning & informing, media, technical, countermeasures, communications and information sharing systems.
- 6.5. During early engagement, inspectors should ensure that exercise planners understand their legal duties and what ONR's expectations are. Duty holders should understand ONR's regulatory role and powers as well as how ONR responds in an emergency.
- 6.6. At the early planning stages, inspectors should check that sufficient ONR resource will be available to ensure that both the on and off-site responses can be assessed, in addition to any response functions that ONR is taking part in (see ONR's [Nuclear Emergency Handbook](#)). The ONR inspector should also coordinate with other regulatory bodies as required, eg DNSR, for exercises relating to MoD facilities, or HSE, when COMAH sites are involved (ie under a modular exercising programme).
- 6.7. In line with REPPIR guidance (para 266) the response to a real emergency is not a substitute for a test of the plan. However, ONR may allow limited credit to be taken if the response is similar to that required for a nuclear emergency eg fast-moving situation and decision-making, consideration of scientific advice by the STAC and the same organisations involved. In this case sufficient evidence must have been captured during the response, for example, decision records, action logs, meeting minutes or reports containing lessons learned.

Exercise Planning – the scenario

- 6.8. To provide an adequate test of the off-site plan, the scenario should cause an Off Site Nuclear Emergency (OSNE) and provide a sufficient level of challenge so that all necessary organisations and individual participants can test their capability. The challenges posed over a series of exercises should cover a range of initiating events identified in the RoA that would cause an OSNE.
- 6.9. The scenario should require the implementation of automatic off-site countermeasures (or simulation thereof), and ensure that changes to countermeasures are *at least considered*. Examples of changes to countermeasures may include the need to

shelter, extend sheltering, restricting access to certain roads or evacuation. The exercise should therefore require participants to at least discuss and decide trigger points for further measures even if they are not deployed.⁵

- 6.10. Sufficient time should be allowed for the exercise so that all stages of the response can be tested. Typically, level 2 exercises need sufficient time in which the STAC can consider monitoring data and any consequent advice can be acted upon at the tactical level, and for consideration of a handover to the recovery group (as a minimum).

Joint Level Exercises (with either level 1 and/or level 3 exercises)

- 6.11. The linking of off-site (level 2) exercises to on-site (level 1) demonstrations can be useful to test the interactions between the on and off site response, add realism, and generally encourage collaborative planning between operators, Local Authorities and other responding organisations (REPPiR guidance para 263).
- 6.12. Level 3 exercises involve one or more central Government departments and the Scottish Government Resilience Room (SGoRR) if Scottish sites are involved.⁶ From the annual programme of level 2 off-site exercises, one civil site and one defence site are selected, and BEIS or MOD and/or Scottish Government will activate their facilities and arrangements to carry out the level 3 exercise. Level 3 exercises are not statutory. Joint level 2 and level 3 exercises add greater realism to an exercise as demands from Government add further gravity and pressure for the SCC participants and a more complex media strategy is needed. In accordance with Cabinet office Guidance, all local level participants should understand the needs of national level organisations.

Modular Exercises

- 6.13. A modular exercise tests one or more specific functions or facilities of the response. A modular exercise programme allows all parts of the response to be tested over a number of exercises and within a three year period. Any local authority that wishes to carry out modular testing should demonstrate how the modular components will test the totality of the plan and seek agreement from ONR before commencing a modular exercise programme.
- 6.14. Modular exercising may be acceptable in a number of situations including:
- if the local authority has the duty to prepare and test a plan for another nuclear site,
 - if some aspects of the response are tested routinely under another regulatory regime (eg test of a COMAH off-site emergency plan),
 - if there is a need to reduce the burden on a particular organisation from exercising, for example, if exercising would divert resource from hospitals,
 - if there is a need to re-test a particular function if issues are identified in capability, or
 - if there is a change to the plan or the facilities (assuming other components have been exercised in the last couple of years)
- 6.15. Where modular testing of the arrangements is undertaken, it is good practice to carry out a single test of the entire plan at least every six years to ensure that all the parts of

⁵ For joint level 1 & 2 exercises, it may be necessary to liaise with the nominated site inspector beforehand to change or adapt the initiating event so that the off-site consequences allow for consideration of non-automatic countermeasures.

⁶ The Central Government response is described in [Responding to Emergencies, the UK Central Government Response Concept of Operations \(April 2013\)](#) and Scottish Government response in [Preparing Scotland: Scottish Guidance on Resilience \(March 2012\)](#).

the plan can be delivered concurrently and cohesively. There may be exceptions to this, for example, if full-scale testing under COMAH has recently taken place⁷.

- 6.16. Modular exercising may not be a desirable approach for immature duty holders where comprehensive assurance of compliance is required. Conversely, where there is confidence in a duty holder, a sampling approach may be taken to assessing the modular exercises.
- 6.17. ONR inspectors should bear in mind that modular exercising can introduce more artificiality into the exercise than would be the case for a full exercise. ONR inspectors should assure themselves that any emergency functions that are not being tested in any particular exercise, but would have the potential to impact on the functions that are being tested, are adequately replicated by a SIMCELL and planned for in the exercise script.
- 6.18. Table top exercises can be a useful way to test particular aspects of an emergency plan. When well run, they can be a good test of strategic decision making and information interpretation. It is however more difficult to use table top exercises to demonstrate the adequacy of interfaces and information exchange and also to drive the pace of the exercise that might be required from a real incident (for example from the demand for information from central government). Similarly, it can be difficult to test the adequacy of facilities from a table top exercise. Table top exercises should therefore only be used as part of an exercise programme that still plans for full off-site demonstration exercises.

Inspector's Role in Assessing an Off-site Exercise

- 6.19. Prior to attending an exercise, ONR Inspectors should familiarise themselves with:
 - the local support plans (which may be made by the relevant Local Resilience Forum)
 - the roles of the participating organisations⁸
 - the exercise plans and objectives, and
 - the local off-site emergency plan.
- 6.20. Inspectors should observe the exercise from a distance and not interrupt those participating or be tempted to participate as part of ONR's response or otherwise. Inspectors should refer to the exercise director if they identify a significant issue, for example, if it is necessary to draw the exercise back on track.
- 6.21. For joint level 1 and level 2 exercises, inspectors may wish to liaise with ONR inspectors situated on-site and within the Redgrave Court Incident Suite (RCIS) to check timings and that the response is on track. For example, the NNEPRG Guidance – Response section (para 3.2.1) states that *the site operator should aim to make a declaration within 15 minutes of symptoms being detected and assessed*.
- 6.22. For exercises in relation to defence sites, the Lead ONR inspector should liaise with the Defence Nuclear Safety Regulator (DNSR) in line with the ONR/DNSR Letter of Understanding.

⁷ A COMAH response requires a similar set-up to that required for REPPiR including the formulation of scientific advice.

⁸ A full description of roles and responsibilities can be found in the [National Nuclear Emergency Planning and Response Guidance](#).

Notification

- 6.23. A formal test of the notification arrangements is often done on a different day to the exercise. This is because no notice exercises can considerably reduce the amount of time to play out the scenario due to the time required to complete the alert cascade and for participants to travel to the SCC. It is also inappropriate to divert local emergency and health services for exercises at short notice. However the notification test should involve all relevant organisations as specified in the plan in order to form part of the REPPiR test.
- 6.24. ONR inspectors should confirm that all participants were alerted within a reasonable time period as specified, and in the sequence specified within the plan.

Set up of Tactical Co-ordinating Centre (TCC)

- 6.25. The Tactical Co-ordinating Centre has responsibility for co-ordinating the implementation of countermeasures (through operational teams), planning, prioritising and co-ordinating resource, including the acquisition of required additional resource, as required, to implement countermeasures, and any other roles specified within the off-site plan. The TCC would normally become operational before the SCC and would therefore initiate and progress actions within the early stages of the response, such as ensuring the implementation of any 'automatic' countermeasures, as specified within the off-site plan. The TCC should be clear on its role, and not delve into strategic decision making.
- 6.26. Clear and frequent lines of communication between tiers of command (i.e. between tactical and strategic and between tactical and operational) are essential to ensure that strategic command provides clear direction on the countermeasure implementation strategy and tracks the progress of its delivery so it can alter the strategy as necessary.

Set up of Strategic Co-ordinating Centre (SCC)

- 6.27. The SCC should become functional within a reasonable time frame (maximum of 2 hours) of an OSNE being declared. Arrangements for receiving participants to the facilities such as access (for security), parking and briefing on arrival are important for successful set-up.
- 6.28. ONR Inspectors should assure themselves that the SCC is set up at the start of the exercise as it would be in a real emergency e.g. computers are not logged on and emergency plans are not out and ready for use prior to the exercise commencing.

Coordinating and Advisory Groups

- 6.29. In order to form a judgement as to the adequacy of the exercise demonstration, ONR inspectors should observe a sample of meetings including; the Strategic Coordinating Group (SCG), the Scientific and Technical Advice Cell (STAC), the Tactical Coordinating Group (TCG) and/or Strategic Media Advisory Cell (SMAC).⁹ The following provides a checklist that ONR inspectors can use when judging adequacy:
- matters should be dealt with in order of urgency and importance so that consequent actions can be pursued in parallel to the meeting,
 - strategic objectives should be agreed at the start of the first meeting and adapted as necessary as the scenario progresses,

⁹ The role and functions of the SCG, STAC, TCG and SMAC are described in the [NNEPRG – Concept of Operations](#)

- business should be restricted to relevant matters within the scope of the group. For example, tactical matters should only be dealt with at the TCG,
- all relevant organisations should be present and given the opportunity to raise issues (At the beginning of the exercise, responders may be able to dial into meetings whilst travelling),
- meetings should not overrun or be held too frequently to allow time for actions to be completed outside the meetings,
- meetings should be forward looking; matters discussed should include potential for foreseeable changes to the scenario and impacts on people over time. Examples to consider in scenarios include the adequacy of countermeasures, changes in weather/wind direction, vulnerable persons' needs (the elderly, sick, school children etc.), food and water restrictions, business continuity and emergency response continuity, escalation of the event etc.,
- any decisions made at meetings must be informed by the appropriate persons or groups (eg advice on countermeasures is given by or informed by the STAC, except in the very early stages where the operator may advise that pre-agreed statements referring to countermeasures are issued), and
- actions arising at meetings should be tracked and taken forward and any decisions recorded.

Information Sharing

- 6.30. Effective implementation of the plan relies on all exercise participants having a shared understanding of the current situation throughout the exercise. There should be effective means of sharing information as it emerges and computer-based platforms and/or display boards throughout the facility may be used for this purpose.
- 6.31. All persons arriving at the TCC or SCC should be provided with a briefing (verbal or written) that familiarises exercise participants with the current situation and the facility.
- 6.32. Participants should proactively identify and share any information that responders may require to understand the current situation.
- 6.33. Inspectors should ensure that there is effective situational awareness throughout the SCC and TCC and that information, decisions and actions are recorded.

Supply of information to TCC and SCC

- 6.34. The supply of information to the TCC and SCC is essential for informed decision making. Inspectors should ensure that SCC participants proactively identify and requisition any information that they require to understand the situation.

Scientific & Technical Advice Cell

- 6.35. Inspectors should observe the STAC to ensure that it meets at regular intervals and that it is effective in providing timely and co-ordinated advice on scientific and technical issues to, and as requested by, the SCG. Initial tasks will be to determine if the implemented countermeasures are adequate, require extending or should be reduced in scope and content.

Interpretation of Information at the TCC and SCC

- 6.36. Technical and radiological data should be analysed and communicated in a timely way to inform response decisions and to protect the public and emergency responders. Advice given by the SCC should be based on realistic and projected scenarios, and should be related to specific countermeasures. Any advice provided to non-technical

audiences should be in lay terms. Any technical information shared between technical experts should be specific and make use of defined units and agreed naming conventions.

Strategic Decision Making

- 6.37. Strategic decision making relies upon good leadership that focuses on the key issues in a timely way, drawing on the information and advice available. Pre-prepared roles and responsibilities for groups, and standard meeting agendas facilitate effective decision making. Chairs of decision making groups should understand where relevant advice should be sought from eg public health advice should be sought from STAC.

Countermeasure Advice to the Public

- 6.38. Consistent, clear and timely advice to the public is essential throughout the incident to minimise the impact and reduce anxiety (see [NNEPRG - Response](#) Section 4 *Public Communications – Warning and Informing*). Inspectors should observe that initial advice to the public is provided as soon as possible following the declaration of an Off Site Nuclear Emergency (OSNE) and in accordance with the off-site plan. Any further messages to the public regarding countermeasures should be informed by advice from the STAC and authorised by the SCG or SCG Chair.
- 6.39. Inspectors should observe that messages fulfil the requirements of REPIR Schedule 10 in providing information about the type of emergency, its origin, extent and probable development in addition to advice on health protection measures to be taken and where to get further/future information. Messages should be specific about *who is affected* and *who needs to take action*. For example, if action is only required in certain sectors of the EPA, this should be clear in the message. Inspectors should ensure that consideration is given to how messages reach vulnerable groups.
- 6.40. If the hazard requires implementing countermeasures beyond the local authority boundary, consistent messaging should be provided by the neighbouring authority.

Media Briefing

- 6.41. A Strategic Media Advisory Cell (SMAC) is usually set up to devise and deliver an effective media strategy. ONR Inspectors should ensure that the press are briefed proactively and key messages are widely promulgated as this should reduce the number of queries and potentially harmful speculation.
- 6.42. An initial media holding statement should be provided within one hour of the OSNE being declared¹⁰. Subsequent messages must be cognisant of all previous messages (no matter which organisation sent them out) and be factually accurate. Messages should be issued throughout the exercise and updated soon after any decisions are made at the SCG (or elsewhere) that concern public protection. Simulated press briefings are often carried out to test senior roles across response organisations. ONR inspectors should observe briefings and check messages to ensure that simple, clear, factually accurate and consistent messages are being given via conventional and social media channels.
- 6.43. Relevant good practice about how to work with the media is described in Part 2 of the [Nuclear Emergency Planning and Response Guidance](#).

¹⁰ NNEPRG (Part 2 – Response) lists the information that should be provided to the public and the media immediately after an emergency is declared, *and during the first hour*.

Facilities & Equipment

- 6.44. TCC and SCC facilities and equipment should be fit for purpose with adequate space and a layout that allows information-sharing for an effective response. Restricted access is important for security (eg to stop members of the press entering the SCC) but should not obstruct communication between organisations, particularly if a malicious initiator has been ruled out.
- 6.45. Equipment (including smart white boards, videoconferencing, teleconferencing, tannoy, wifi, external network workstations etc.) should be fully functioning and have clear instructions at hand. It is good practice to have dedicated individuals who are responsible for the running of the SCC and are on hand to help exercise participants.

Participants

- 6.46. All exercise participants should be familiar with the off-site emergency plan and the SCC facility. Those attending should have the relevant authority to inform or make strategic decisions in addition to being suitably qualified, experienced and trained. (see SQEP and response role training, Section 5). Fundamentally it is important to consider how well the participants would have coped in a real emergency.

Exercise Close

- 6.47. Exercise organisers should seek confirmation from the assessing ONR lead inspector that they have witnessed the exercise to a stage that has sufficiently tested the plan and the exercise objectives before declaring ENDEX and closing the exercise.

Exercise Feedback – Hot Debrief

- 6.48. It is usual for the ONR Lead Assessor to Chair a hot debrief on the same day and after ENDEX is declared, allowing sufficient time for the ONR assessment team to agree consolidated findings and for participant teams to consolidate their own learning points in advance of the debrief.
- 6.49. A sample script to Chair the brief is provided in Annex C. It is good practice for all participant organisations to participate by offering positive feedback and learning points and to judge themselves against agency and overarching exercise objectives. REPPiR guidance recommends that the debrief should be carried out in an open and blame-free atmosphere to promote collaborative improvement (para 269). ONR Assessors should provide feedback on what they witnessed with specific examples together with recommendations. At the end of the meeting, ONR Assessors should provide an initial view on whether the exercise proved to be an effective test of the plan. The Lead Inspector should also write to the local authority following the exercise to confirm whether the exercises constituted an effective test of the plan.

Exercise Feedback – Cold Debrief

- 6.50. REPPiR guidance highlights that it is important that lessons learned from testing are fed back to all the relevant operators, emergency services and organisations (para 282). The local authority should actively seek and compile all feedback from an exercise, arrange a cold debrief approximately four weeks after the exercise and collate all the feedback into an exercise report. All participating organisations should attend the cold debrief which is usually chaired by the local authority. ONR Assessors should reiterate whether the exercise proved to be a demonstration of the off-site plan. The local authority should take a lead on putting in place any rectifying or improvement actions, or retests of functions that were not demonstrated in the exercise.

7. SIGNIFICANT SHORTFALLS IN EMERGENCY ARRANGEMENTS OR CONTINUED NON COMPLIANCE

- 7.1. If, during the course of inspections or observations of exercises, *significant* shortfalls are identified in the adequacy of arrangements, these should be communicated to the duty holder *as soon as they are identified* (in the hot and cold debriefs described above, or in an inspection debrief). [Regulatory issues](#) should be raised in accordance with ONR procedures.
- 7.2. Inspectors may wish to recommend that certain aspects are rewritten, retested or that specific training or other actions are carried.
- 7.3. If there is little or no progress after a reasonable period of time following the identification of required improvements, *and* ONR inspectors have engaged fully with the process and follow up, inspectors may wish to consider taking formal enforcement action ([Enforcement Management Model \(EMM\) guidance](#)). Inspectors should however initially seek ways to tackle any underlying factors that are not within the local authority's control but that are affecting progress. For example, reliance on operator's assessment or communication of the hazard, or reliance on the local responder's (emergency services, NHS, PHE etc.) contribution to the response (eg from resource diversion to respond to a real emergency) could impact on the Local Authorities ability to rectify issues with its arrangements. It is generally considered that influencing underlying factors can often be more effective to reach desired outcomes, although enforcement action cannot be ruled out when regulating Local Authorities under REPPiR.



ANNEX A: INSPECTION OF REPIR OFF-SITE ARRANGEMENTS - AIDE MEMOIRE

The following tables should be used as an aide memoire during inspection of an off-site plan. The annex is not intended to be a checklist; a sampling strategy should be developed for the inspection as described in the main sections of the TIG.

Function	Individual Element	Reference
Plan Foundations		
Plan Preparation	The plan must be prepared within 6 months (or longer if agreed by ONR) after whichever is later: <ul style="list-style-type: none"> o determination of emergency planning area by ONR o issue of Report of Assessment (RoA) by operator 	REPIR Reg 9(8)
	When the plan is prepared, the LA must confirm this in writing to the operator	REPIR Reg 9(13)
Governance Arrangements	The plan must contain the names or positions of persons authorised to set emergency procedures in motion and of persons authorised to take charge of and co-ordinate the off-site mitigatory action	REPIR Schedule 7 Part 3(a)
	There should be clear governance arrangements within the lead duty holder (usually the County Council) which identify those responsible for developing, approving and overseeing the process of developing and maintaining the off-site plan and associated arrangements under the plan.	RGP
	There should be arrangements in place for independent validation (eg audit) of the processes that support the development and maintenance of the off-site plan, and associated arrangements under the plan.	RGP
Plan Consultation	The following organisations have been consulted in the preparation of the plan: <ul style="list-style-type: none"> o the operator o ONR o the EA, NRW or SEPA o the Emergency services o the Health Authority o any other persons or organisations identified by the local authority as appropriate. 	REPIR Regs 11(3) & 9(12)
	All the persons and organisations that need to be consulted in the preparation of the plan have been identified. In addition to those listed above, these may include: <ul style="list-style-type: none"> o the public, through elected Councillors, or through established groups – eg Site Stakeholder Groups. o DEFRA, the Scottish Government Environment Directorate or other government departments o FSA or FSS o the water company o harbour or airport authorities, and o neighbouring Local Authorities 	REPIR regulatory guidance paras 235 to 243
	Consultation on developing the off site plan should have taken place; eg: by means of; <ul style="list-style-type: none"> o steering Group o emergency planning working group o meetings of selected organisations o discussion or focus groups and/or o briefing or review meetings 	REPIR regulatory guidance – para 140
Plan Review	The plan must be reviewed and where necessary revised at suitable	REPIR Reg

Function	Individual Element	Reference
	intervals not exceeding 3 years. Each review shall take into account: <ul style="list-style-type: none"> o changes occurring in the work with ionising radiation to which the plan relates, o changes within the emergency services that are relevant to the plans, o new technical knowledge (eg more effective means of mitigation), o knowledge concerning the response to radiation emergencies (eg changes to staffing resources including contractors), o any material change to the assessment on which the plan was based since it was last reviewed or revised. 	10(1)
	The plan review should also take into account: <ul style="list-style-type: none"> o knowledge gained as a result of radiation emergencies occurring, either on-site or elsewhere; and o lessons learned during the testing of emergency plans. 	REPPIR regulatory guidance – para 140
	All changes to the plan which may affect the emergency response should be communicated to all agencies that have a role in the response as part of the consultation process.	REPPIR regulatory guidance – para 253
	Similarly, agencies that have a role in the plan should communicate any changes to their arrangements that have an impact on the plan to the other parties.	REPPIR regulatory guidance – para 253
Basis of Plan	The plan must address all the reasonable foreseeable emergencies that have been identified by the Operator.	REPPIR Reg 9(3)
Extendibility	The emergency plan should be extendible to provide rapid and effective mitigation for radiation emergencies which could occur, but the likelihood of which is so remote that detailed emergency planning against their consequences is not justified.	REPPIR regulatory guidance – para 138
	Emergency planning needs to be capable of responding to radiation emergencies which, although extremely unlikely, could have consequences beyond the boundaries of the detailed emergency planning zone.	REPPIR regulatory guidance – para 209b
	The extendibility should show which protection measures are reasonably practicable, how the emergency protection measures would be implemented, linking to existing arrangements (either under REPPIR or CCA); and the time frame required for implementing the emergency protection measures.	NNEPRG Part1, para 3.6.8
	The extendibility should consider the site-specific risk, practicality, worth and cost benefit of extending countermeasures for public protection beyond the EPA. The assessment should be made considering advice from the operator on the worth of extending countermeasures based on the detailed assessment in the HIRE, PHE CRCE Emergency Reference Level guidance ¹¹ , the justification principles ¹² , local capability and the HSE guidance on what constitutes “reasonably practicable”. ¹³	NNEPRG Part 1 para 3.6.9
Command, Control and	Arrangements for a radiation emergency should be coordinated and integrated with national and local level for response arrangements for	IAEA GSR Part 7 – para 5.6

¹¹ Board Statement on Emergency Reference Levels, NRPB, Vol. 1 No. 4 (1990)

¹² Justification is one of the key principles of radiological protection established by the International Commission on Radiological Protection on which the radiological framework of the UK is based.

¹³ [Reducing Risks, Protecting People](#), HSE (2001) ISBN 0 7176 2151 0.

Function	Individual Element	Reference
Coordination	conventional emergencies and nuclear security events.	
	There must be one Command, Control and Coordination structure for responding to any emergency which all Cat 1 and 2 responders, industry and voluntary agencies use.	CCA Emergency Preparedness – Chap 19 – para 19.21
	The structure should follow national guidance: <ul style="list-style-type: none"> o SCG o TCG o STAC o ResCG¹⁴ 	NNEPRG- Chap 2 and CCA ER&R – Chap 4
SCC Facility	<p>The SCC should provide the means whereby:</p> <ul style="list-style-type: none"> o relevant multi-agency groups and advisory cells, (eg SCG, STAC, SMAC etc.) and their constituent local and national agencies members can receive full and authoritative information about the emergency; o advice can be provided to those charged with local executive actions to protect the public; o information about the emergency can be formulated for the media and the public; and o co-ordinated action can be taken to protect the public. <p>The features of (and arrangements for) the SCC should include:</p> <ul style="list-style-type: none"> o suitable designated accommodation for the SCG, STAC etc. equipped in advance of any emergency and capable of being activated quickly; o media briefing facilities, or premises nearby which can be used to house the media briefing cell; o adequate equipment to enable representatives of participating agencies, services and organisations to communicate effectively with their local and national headquarters and with the BEIS Emergency Operations Centre in London, or the Scottish Government Resilience Room in Edinburgh or the Welsh Government Emergency Coordination Centre in Cardiff; and o capability for continuous operation over a period of several days, o back up capability for the failure of essential equipment that could interrupt the continuity of the response, and o defined routes for the transmission of information and decisions between the SCC and the other emergency centres involved in the response. 	NNEPRG – Chap 2, para 2.3.1 – 2.3.4
	There should be consideration of resilience so that if the primary SCC is unavailable, an adequate response is achievable.	RGP
Initial Response		
Alerting and Activation	The plan must show arrangements for receiving early warning of incidents, and alert and call-out procedures.	REPIIR Schedule 7, Part 3(b)
	The plan should show how the warning will be received by the off-site emergency services and how it will be cascaded to other off-site agencies	REPIIR Schedule 7 para 484 a & b
	The plan must show the names or positions of persons authorised to set emergency procedures in motion and of persons authorised to take	REPIIR Schedule 7,

¹⁴ When regional coordination is required over multiple SCC's a Response Coordinating Group (ResCG) may be activated -see [Part 2, NNEPRG](#), para 2.5.2.

Function	Individual Element	Reference
	charge of and co-ordinate the off-site mitigatory action	Part 3(a)
	The plan should show the emergency management structure for the off-site response	Schedule 7, para 483
	The plan should show the off-site rendezvous points used by responder agencies if appropriate	Schedule 7, para 485(e)
	The plan should show how responding agencies will gain access to: <ul style="list-style-type: none"> o the site o to any specialist equipment 	Schedule 7, para 485(f)
Warning and Informing	The plan should show how information will be provided to any member of the public affected by a radiation emergency to ensure that information can be provided without delay.	REPPiR Reg 17
	Public information must cover information that is relevant to the emergency and may include: <ul style="list-style-type: none"> o information on type of emergency and, where possible, its characteristics. o instructions or advice on health protection measures o information on how to access information where no release has occurred yet, together with any preparatory advice or precautionary action for vulnerable groups. o where time permits, basic information about radioactivity and effects on people and the environment. o how people will be told that any danger has passed and they may return to their normal activities. 	REPPiR Reg 17 (4) REPPiR Schedule 10 & para 488
	The above arrangements for alerting the public should cover procedures for alerting the public in: <ul style="list-style-type: none"> o permanent residences o commercial properties o hotels, caravan and camping parks and other such holiday areas o beaches, parks, golf courses, walking routes and similar areas where there may reasonably be expected to be members of the public o Schools, universities, nursing homes etc. o Neighbouring nuclear sites 	RGP
	The plan should refer to, and be consistent with the prior information provided to the public (Operator Duty REPPiR Reg 16).	Schedule 7, Part 3(f) – para 488
	The plan must detail the system to be used for managing information in the event of an emergency to, and between the emergency services and to other responder agencies.	REPPiR Reg 9(2)- para 217 and para 485d
Media Co-ordination	<ul style="list-style-type: none"> • Arrangements should be in place to ensure a consistent and co-ordinated strategy for engaging with the media and the public by all responding organisations. • The emergency plan should build strategic media planning into the SCC. • While organisations may still brief the press on their own areas of interest, they are expected to co-ordinate with the SMAC to ensure consistent messages are received by the media and the public 	NNEPRG – Response – para. 2.3.13 – 2.3.22

Function	Individual Element	Reference
	<ul style="list-style-type: none"> The plan should include arrangements for issuing prompt and regular media statements. This should include pre-prepared initial media statements which can be issued without delay after the declaration of an emergency. Such statements are likely to be outline templates in which specific details can be filled in. These templates can be filled in with whatever details are known at the time and issued quickly to act as media 'holding statements' 	RPG
	Media arrangements should include digital communications, such as placing information on websites and monitoring and making use of social media platforms.	NNEPRG – Response – para 4.6.4
	The plan should include arrangements for operation of a Media Briefing Centre (MBC). The MBC should be staffed by spokespersons from all the principal responding organisations. The MBC also provides the media with a base to work from and office facilities.	NNEPRG – Response – para 2.3.17 – 2.3.20
	The plan may identify an appropriate location or locations for a Forward Media Briefing Point. Its use will depend on health and safety issues, and also how close the MBC is located to the incident scene. The location should offer easy access from public areas and be close to the incident scene. If possible it will include a media vantage point for photographs and filming at the scene.	NNEPRG – Response – para 2.3.21 – 2.3.22
Dovetail with Operator Emergency Plan	The plan should dovetail with the operator's emergency plan.	REPIIR regulatory guidance – para 234
	The plan must show arrangements for providing assistance with on-site migratory action.	REPIIR Schedule 7, Part 3(d)
	<p>The plan should:</p> <ul style="list-style-type: none"> identify events with the potential to cause a radiation emergency explain the strategy for dealing with identified events detail the responsibilities of people and organisations with roles to play in the onsite response describe the arrangements for briefing off site intervention personnel arriving at the site, and detail the availability and function of firefighting equipment, damage control and repair items. 	REPIIR Schedule 7, para 486
Dovetail with security arrangements	<p>The plan should include, or take into consideration any additional elements required for a counter terrorism response including:</p> <ul style="list-style-type: none"> notification of a security incident police CT network, including elements added to SCC, additional national arrangements, including amended Government Liaison changes to SCG arrangements – overt response, consequence management, additional attendees, and additional agency responsibilities. 	NNEPLG - Terrorism Incidents
	The planning process should identify and consider any potential conflicting requirements, for example security arrangements that might have a detrimental effect on the response, or contribute to public or worker exposure.	RGP
COMAH sites	Arrangements should consider the impact of a nuclear emergency on any nearby COMAH sites or other potentially hazardous installations.	RGP

Function	Individual Element	Reference
	This would be similar to a 'domino plan' under COMAH regulations.	
Responding Agencies	Employers of persons whose participation is reasonably required in the plan have cooperated to the extent to ensure regulatory compliance.	REPIIR Reg 11(3)
	The plan must include the arrangements for emergency exposures including the dose levels which have been determined as appropriate for the purposes of putting into effect the emergency plan.	REPIIR Schedule 7, Part 3(g)
	Plans must detail or refer to arrangements for emergency exposures including the dose levels which have been determined as appropriate for the purposes of putting into effect the emergency plan.	REPIIR Schedule 7, Part 1 (g)
	There should be liaison arrangements between employers, for example between the emergency services and the operator to reach agreement on the dose levels for the purposes of both on-site and off-site mitigatory action.	REPIIR Guidance para 478
	Each responding employer must identify all employees that might be subject to an emergency exposure.	REPIIR Reg 14(1) (a) & para 346
	Arrangements should be in place for periodic refresher training and training for new staff who may be subjected to emergency exposures.	REPIIR Guidance para 354
	The response structure should be based upon nationally agreed multi-agency coordination arrangements: <ul style="list-style-type: none"> o SCG o TCG o Forward Command Post (FCP) 	JESIP Part 2, 3.5
	The plan should consider possible reductions in staffing levels for responder agencies during weekends/public holidays.	REPIIR regulatory guidance – para 215
Public Protection	The plan should show how urgent health protection measures (evacuation, shelter and KI) will be implemented within the first 24 hours.	REPIIR regulatory guidance – para 218 and para 487. NEP&RG – Preparedness – para 2.14.1
	The plan should address intervention levels specified for foods, drinking water and animal feeds (CFILs).	REPIIR Schedule 8, Part 2(b) – para 492
Short and Medium Term Countermeasures		
Public Protection	The plan should show how off-site effects of a radiation emergency would be mitigated through: <ul style="list-style-type: none"> o shelter o evacuation o stable Iodine o traffic Control, including maintaining emergency services routes, and o the control of people entering affected area. 	REPIIR Schedule 7, Part 3(e), para 487
	<ul style="list-style-type: none"> • The above off-site mitigatory measures should be considered for both residences and commercial properties 	NNEP&RG – Response –

Function	Individual Element	Reference
	<ul style="list-style-type: none"> • Application of countermeasures to any vulnerable groups should be considered, for example: <ul style="list-style-type: none"> ○ schools & nurseries ○ hospitals and GP offices ○ nursing homes ○ caravan & camping sites ○ beaches, walking routes and other areas where there may be members of the public without ready access to countermeasures • There should be consideration of local rail routes and whether the trains would need to be halted or diverted • The requirement for airspace and / or maritime traffic restrictions around the site will need to be considered 	para 5.3.9 and RGP
Training		
Training	There must be arrangements in place to show how employees of responder agencies are provided with suitable and sufficient information, instruction and training.	REPPiR Reg 9(14) and paras 246 & 247
	<p>Arrangements should demonstrate that:</p> <ul style="list-style-type: none"> • There is an adequate and sufficient training programme in place for all key roles including SCG Chair & strategic commander, RCG Chair, STAC Chair, Media Chair, loggists etc. including refresher training. • Training is designed to fulfil pre-determined competency criteria for each role. • All those involved in tests have been previously trained for their role. • Training records are up-to-date. • Adequate numbers of staff are trained in each role. 	REPPiR guidance paras 270- 271 and RGP.
	Category 1 and Category 2 responders should be familiar with, and have fully rehearsed, specific local on-site arrangements.	NNEPRG – Response para 2.2.3
Test of the Plan		
Planning	There must be arrangements in place that show how the local authority will test the plan at least every three years.	REPPiR Reg 10(1) & para 250. NNEP&RG – Preparedness – para 4.2.1
	In the planning for tests of REPPiR arrangements the elements in Annex E of national guidance should be considered.	NNEPRG - Annexes dated October 2015
	The Exercise Order should consider following the template at Annex H in the national guidance	NNEPRG - Annexes dated October 2015
Debrief	A hot debrief should be held immediately after the close of the exercise to capture areas for improvement at the time from all the participating organisations.	NNEPRG – Preparedness and Annexes dated October 2015 and JESIP Part 2, 3.6
	A cold debrief should be held approximately four weeks after the exercise. Longer may be taken if there are mitigating circumstances).	NNEPRG – Preparedness

Function	Individual Element	Reference
		para 4.7.2
Lessons learnt	<p>An exercise report should be issued by the local authority in a timely manner following the cold debrief. The report should include:</p> <ul style="list-style-type: none"> ○ an overview of the exercise, and ○ lessons identified against elements listed at Annex J to national guidance. 	NNEPRG – Preparedness and Annexes
	<p>Lessons identified from previous exercises are managed appropriately so there is a record of how actions are taken forward, for example in the updating of the off-site plan, for updates to organisation's arrangements, in training or for consideration in planning for future exercises.</p>	NNEPRG – Preparedness and Annexes, RGP

ANNEX B - INSPECTION OF REPPIR OFF-SITE EXERCISE- AIDE MEMOIRE

The following tables should be used as an aide memoire during the observation of an off-site test of emergency arrangements under REPPIR Reg 10(1)b. The annex is not intended to be a checklist but shows the key requirements in the response to easily identify any shortfalls or areas of good practice.

Function	Individual Element	Reference
Initial Response Actions		
Declaration / Alerting	<ul style="list-style-type: none"> The operator should initiate the notification and alerting arrangements without delay and within 15 minutes following declaration of an off-site emergency (or an event which could be reasonably believed to lead to an off-site emergency). the operator should follow up with a confirmation fax or email following initial notification The operator should promptly complete all notifications as required by the off-site plan 	REPPIR Reg 13 NNEPRG – Response – paras 3.2.1 & 3.2.2
Alerting	<p>The notification cascade should be initiated and completed in a timely manner following initial notification from the operator. This would include:</p> <ul style="list-style-type: none"> Notification of all local responding organisations within 20 minutes of the operator’s initial notification Notification of appropriate national responding organisations within 30 minutes of the operator’s initial notification Information passed down the chain should be clear and consistent and should result in all responding organisations having a common understanding of the situation 	NNEPRG Response – para 3.2.2 and RGP
Initial Public Protection Advice	<ul style="list-style-type: none"> Actions to initiate urgent / automatic countermeasures detailed within the off-site plan should begin without delay after initial declaration. The operator should provide up-to-date information about the current situation, which may include advice to supplement the automatic public countermeasures detailed in the off-site plan. This advice should be continually reviewed by the operator until the STAC forms¹⁵. 	REPPIR Reg 17, & NNEPRG Response – para 5.2.2
SCC Set-Up	<ul style="list-style-type: none"> The SCC should be activated without delay following initial notification. This should be operational and staffed by trained persons within 2 hours of initial declaration of an off-site emergency. This may require assessment of major routes to the SCC for key staff and whether these are likely to be blocked in an off-site nuclear emergency, and/or communication means for key staff whilst they are en-route. A Strategic Co-ordinating Group capability should be fully in place within 2 hours Organisations that are geographically remote should be capable of providing an initial response once IT and communications linkages have been established or until such times as their personnel can arrive physically at the SCC location. 	NNEPRG – Response – para 2.3.1 and further RGP
TCC Set-Up	The TCC should be activated without delay to initiate the co-ordination of resources and any automatic countermeasures as specified in the	ER&R – para 4.2.11 and

¹⁵ It is unlikely that operator advice which varies significantly from the pre-planned automatic countermeasures would be implemented prior to formation of the STAC. Any advice to reduce countermeasures should not be enacted without ratification by the STAC.

Function	Individual Element	Reference
	off-site plan.	JESIP para 10.3
Strategic Coordination	<p>A Strategic Co-ordinating Group (SCG), usually chaired by a senior police officer, should be formed and take overall responsibility for the multi-agency management of the emergency and establish the policy and strategic framework within which tactical and operational tiers will operate. The SCG should:</p> <ul style="list-style-type: none"> • Determine and promulgate a clear, strategic aims and objectives and review them regularly; • Establish a policy framework for the overall management of the event or situation; • Prioritise the requirements of the tactical tier and allocate personnel and resources accordingly; • Formulate and implement media-handling and warning and informing plans; and • Direct planning and operations beyond the immediate response in order to facilitate the recovery process. <p>The SCG should ensure that initial response action is being taken as follows:</p> <ul style="list-style-type: none"> • major Incident is declared • emergency responder alerting and activation, • public warning and initial information, • initial public protection countermeasures are in place, • STAC and Media coordination functions are in place, • initial radiation monitoring actions have started, • security actions are taking place, if appropriate, and • the link with national emergency management structures has been established. 	NNEPRG – Response – para 2.3.5 and further RGP
STAC formation	A Scientific and Technical Advice Cell (STAC) should be established at the SCC to take responsibility for providing public protection advice to the SCG	NNEPRG – Response – para 5.2.4
Media Management and Recovery	<p>Other working groups and facilities should be established as soon as practicable and as necessary. This is likely to include, but may not be limited to:</p> <ul style="list-style-type: none"> • a Strategic Media Advice Cell (SMAC) and / or Media Communications Cell (MCC) • standing up of a Media Briefing Centre (MBC) at or near the SCC • a Forward Media Briefing Point, usually near the site • a Recovery Working Group (RWG) 	NNEPRG – Response – paras 2.3.12 to 2.3.22
Warning and Informing		
Warning & informing	The public must be informed of any radiation incident soon after any declaration of an off-site emergency has been made.	REPPiR Reg 17
	<ul style="list-style-type: none"> • Members of the public within the areas for which automatic countermeasures have been pre-planned should be informed without delay what actions to take. • This should be completed within one hour of the declaration of the off-site emergency.¹⁶ • This alerting procedure should include all members of the public in the relevant areas, including (but not limited to) those in private residences, commercial properties, in schools, hospitals and 	REPPiR guidance paras 430, 436 NNEPRG – Response – paras 4.3.1 to 4.3.5 & 4.4.2

¹⁶ In many cases this is fulfilled by the operator of the site but it remains the duty of the local authority, via their off-site plan, to ensure that adequate arrangements are in place to inform the public in the event of an off-site nuclear emergency.

Function	Individual Element	Reference
	<p>nursing homes, transient populations such as those on beaches or public paths, those on camping or caravan sites and persons on any neighbouring nuclear sites</p> <ul style="list-style-type: none"> The alerting procedure should include notifying those who may be expected to implement air or maritime restrictions around the site (if applicable) 	
	<p>Further informing of the public should begin within one hour of the off-site declaration. This would include:</p> <ul style="list-style-type: none"> Issuing of pre-prepared media 'holding' statements from the off-site plan Initial holding statements placed on appropriate websites Initial monitoring and engagement (if appropriate) with social media platforms Notification to media representatives for the arrangements for a MBC and Forward Media Briefing Point. 	NNEPRG – Response – para 4.4.2
Response Coordination		
Tactical Co-ordinating Group	<p>The TCG should:</p> <ul style="list-style-type: none"> Plan, prioritise and co-ordinate multi-agency resource Co-ordinate the implementation of tasks allocated to the TCG as specified within the off-site plan or as directed by the SCG. 	CCA ER&R para 4.2.11 and JESIP para 11.3
Strategic Co-ordinating Group	The SCG must consider whether response actions aimed at controlling or limiting any radiation exposure are justified against the potential risk to responders and cost.	REPIR Schedule 8, Part 1(a)
Response Strategy	The response strategy must keep exposure of the public to radiation as low as is reasonably practicable.	REPIR Schedule 8, Part 1(b)
Strategic Coordination Group	<p>The SCG should demonstrate effective command and control of the emergency response.</p> <p>The SCG Chair, usually a senior police officer, should direct the SCG and ensure that it is fulfilling its role.</p>	NNEPRG – Response – table 6
Situational awareness	The operator should ensure that key groups in the SCC including the SCG and STAC are kept fully updated concerning significant events on site.	NNEPRG – Response para 2.2.2
	There should be a system for managing information in the event of a radiation emergency that ensures that necessary information can be identified and communicated to people off-site, the emergency services and other responding agencies.	REPIR Reg 9(2) – para 217
	<ul style="list-style-type: none"> The system to manage information in the SCC should include status boards or computer systems that all responders can access so there is a shared situational awareness. There should be an effective system to allow responders arriving at the SCC to quickly understand the current situation. Good practice would be the use of dedicated briefing officers and situation boards. The SCG Chair should ensure that decisions within the SCG are appropriately placed as actions and that actions placed are being completed. The STAC and SMAC should be used effectively by the SCG, by clear and concise action allocation, completion and reporting back. To facilitate this there should be an effective system for the allocation and tracking of actions, to ensure that decisions taken by the SCG are being carried out in an effective and timely 	RGP, JESIP guidance.

Function	Individual Element	Reference
	<p>manner.</p> <ul style="list-style-type: none"> • Common terminology is used across responding agencies. 	
Media Coordination	<p>SCG should produce a SITREP (situation report) to COBR and maintain a commonly recognised picture of events.</p> <ul style="list-style-type: none"> • A SMAC (or MCC) should be established at the SCC to act as the press office for the emergency. • The primary purpose of the SMAC is to advise the SCG on media strategy and to ensure consistent communication with the media. It is not media facing but is designed to formulate strategy and propose key avenues of delivery. • Press officers from all agencies will contribute up to date information at SMAC meetings to enable the production of up to date and regular press releases/briefings. Press releases should be sanctioned at SCG meetings or with the SCG Chair. • The first pre-prepared holding statements should be issued within one hour of declaration. • This cell should: <ul style="list-style-type: none"> ○ Manage media activities at the Forward Media Briefing Point. ○ Coordinate media visits, including transportation through outer cordons if needed. ○ Manage the Media Briefing Centre ○ Monitor social media ○ Coordinate updates to web presence of responder agencies to ensure consistency of information ○ Produce multi-agency press releases ○ Liaise with central government communications (NCC, BEIS/MoD communications) ○ Host press officers from responder agencies ○ Coordinate media briefings at the Forward Media Briefing Point or at the Media Briefing Centre • Agencies may choose to brief separately on matters, which they feel are relevant but are not included in the police press releases. In this instance, agency press officers should advise the SMAC of their intentions before issuing anything and take advice where necessary. 	CCA ER&R – para 4.4.17 NNEPRG – Response para 2.3.13, 4.4.2 and CCA ER&R – Para 8.5 and RGP
STAC	<ul style="list-style-type: none"> • The STAC should be activated in accordance with local plans as part of the generation of the SCC functions after declaration. • The STAC should support the SCG through the provision of timely and co-ordinated advice on scientific and technical issues. • During a radiation emergency the immediate concern of the STAC will be to determine if the implemented countermeasures are adequate, require extending or should be reduced in scope and content. <p>The STAC should comprise of representatives from the following organisations:</p> <ul style="list-style-type: none"> ○ STAC Chair (PHE or Director of Public Health) ○ PHE CRCE ○ Clinical Commissioning Group ○ Emergency services technical advisors ○ ONR ○ EA / NRW / SEPA as appropriate ○ FSA ○ LA – Environmental Health ○ Operator ○ Met Office ○ GDS 	NNEPRG Response – paras 5.5.1 - 5.5.2 & 5.5.5 NNEPRG – Response – para 5.5.8

Function	Individual Element	Reference
	<ul style="list-style-type: none"> ○ Recovery Group liaison ○ Other invited organisations/agencies to discuss specific issues <p>The STAC Chair should attend SCG meetings, to provide the consolidated advice and report on the technical discussions on behalf of STAC members, receive actions from the SCG Chair for the direction of STAC and report back to STAC members on the outcomes of the SCG meetings. The STAC Chair should invite other members of STAC to attend SCG meetings where their specialist knowledge would be of benefit.</p>	
Tactical Coordination	The emergency services must confirm that personnel earmarked for deployment to the site or any radiation contaminated area have been suitably trained and equipped to manage their exposure to radiation.	REPPIR Reg 9(14)
Radiation Protection	The emergency services must identify employees who may be subject to emergency exposures. Arrangements should be in place to monitor and record exposure, and for the longer term treatment of personnel who have been subject to exposure to radiation.	REPPIR Reg 14(1) a, c, d, e, f & g, Reg 14(8), 14(9), and relevant REPPIR guidance paragraphs.
SAGE	During a radiation emergency, in addition to liaising with the SCG, STAC will be expected to engage with the national level SAGE, to help ensure consistency in the provision of scientific advice.	NNEPRG Response – para 5.5.8
Public Countermeasures		
Countermeasure Advice	<ul style="list-style-type: none"> • Advice on the use of shelter, stable iodine and evacuation as public protection measures following a declaration should confirm any pre-agreed measures. • The advice may come from the operator in the first instance but subsequently come through STAC. • Subsequent information should be in a consistent format. 	NNEPRG – Response – para 5.2 NNEPRG – Annex O (countermeasure advice template)
	Countermeasures advice should be considered against the principles of: <ul style="list-style-type: none"> ○ Justification – the measure should be used if it is expected to achieve more good than harm; ○ Optimisation – the quantities criteria used for introducing and withdrawing countermeasures optimizes public protection; and ○ Avoiding Deterministic Effects – use countermeasures to keep doses to levels below thresholds for deterministic effects. 	NNEPRG – Response – para 5.1.2
	Emergency Reference Levels should be used to justify use of shelter, stable iodine and evacuation as public protection measures	NNEPRG – Response – para 5.2.1
	The FSA should issue precautionary food advice within a few hours of notification. Explanation should be provided to explain the potential impact on wide areas.	NNEPRG – Response – paras 5.3.14 & 5.4.1- 5.4.9
	Public protection measures of shelter, stable iodine and evacuation should be implemented promptly.	NNEPRG – Response – paras 5.3.1 to 5.3.13

Function	Individual Element	Reference
Radiation Monitoring	PHE CRCE should provide overall coordination for radiation monitoring of the public to: <ul style="list-style-type: none"> ○ ensure the immediate safety of people, ○ determine and confirm immediate countermeasures ○ provide public reassurance monitoring ○ Support environmental impact assessment ○ determine food countermeasures 	NNEPRG – Response – paras 5.6.2 & 5.6.4
	Responsibilities on specific agencies/organisations: <ul style="list-style-type: none"> ○ The operator should provide timely and accurate data from the affected site and undertake monitoring out to 15 or 40 km (or 10km for a decommissioning site). ○ NHS England/Clinical Commissioning Groups/NHS Scotland activates local monitoring facilities to support reassurance monitoring ○ EA/SEPA carry out environmental monitoring ○ FSA/FSS and LA – Environmental Health/Trading Standards monitor and sample food ○ Water companies/LAs ensure portability of public drinking water ○ RIMNET provide readings from fixed and mobile monitoring sites ○ MoD be prepared to provide additional equipment and trained manpower under MACA 	NNEPRG – Response – paras 5.6.5, 5.6.6 & 5.6.9
Decontamination	Decontamination arrangements should be provided as follows: <ul style="list-style-type: none"> ○ Casualties – Ambulance service provided casualty decontamination prior to taking to hospital ○ Mass Decontamination – Fire & rescue service provided mass decontamination to assist ambulance service ○ Vehicles – control of contaminated vehicles ○ Longer term decontamination should be informed by GDS. 	NNEPRG – Response – para 5.6.26 & Chapter 6
Recovery		
Recovery Planning during Response Phase	A Recovery Working Group should be established during the response phase that is chaired by the local authority and provides advice to SCG on longer term recovery issues.	NNEPRG – Response – para 2.3.12

ANNEX C: POST-EXERCISE FEEDBACK SCRIPT

The following script may be used to chair the hot debrief, in which feedback from others is heard and feedback is provided by ONR to the participants immediately following an emergency exercise – see paras 6.41-6.42. It is usual to allow sufficient time for participants to gather and agree information within their own teams prior to the hot debrief. This gives the ONR team to collate and agree consolidated feedback (agree who will lead).

1. Introduce yourself and explain you are an inspector from the Office for Nuclear Regulation, the enforcing authority for REPPiR at the XXX site / XXX Operational Berth and/or for XXX off-site emergency preparedness and response.
2. State that ONR observes these exercises to ensure that
 - they are done every three years as required by the regulations,
 - that all of the relevant participants take part, and
 - that lessons are learned and the plan and multi-agency arrangements are improved as a result.
3. Thank the organisers and all participants for their hard work/commitment/realism/professionalism that they brought to the exercise which was evident throughout.
4. Ask those attending the debrief to provide feedback in turn, one spokesperson per organisation, highlighting only the key findings, i.e. a maximum of three things that went well and three areas for improvement.
5. Thank the participants for their observations. You may wish to comment whether they agree with your observations.
6. Provide your consolidated feedback; up to three areas of good practice, and three areas for improvement.
7. Explain that during the feedback session that ONR does not provide a rating for the exercise but that you can confirm that the exercise constituted a test of the plan prepared under Reg 9(1) of the REPPiR regulations and demonstrated in accordance with Regulation 10(1)(b).
8. Confirm that you will communicate this outcome in writing to the Emergency Planning Manager at the local authority.

ANNEX D: DEFINITIONS / ACRONYMS

ALARP	As low as is reasonably practicable
BEIS	department for Business, Energy & Innovation Strategy
CCA	Civil Contingencies Act (2004)
COBR	Cabinet Office's Briefing Room
COMAH	Control of Major Accidents Hazards (COMAH) Regulations (2015)
DEFRA	Department for Food and Rural Affairs
DEPZ	Detailed Emergency Planning Zone, another term, and referred to in this guide as the Emergency Planning Area (EPA)
EA	Environment Agency
ENDEX	End of Exercise play (commonly used code-word)
EPA	Emergency Planning Area (as described in REPPIR regulation 9)
EPCC	Emergency Planning Consultative Committee(s)
ER&R	Emergency Response & Recovery (as in Cabinet Office's Guidance: Emergency Response and Recovery, 2013)
FCP	Forward Command Post
FSA	Food Standards Agency
FSS	Food Standards Scotland
GDS	Government Decontamination Service
GIS	Geographical Information System
HSE	Health & Safety Executive
HSWA	The Health and Safety at Work etc. Act (1974)
HIRE	Hazard Identification and Risk Evaluation
IRR99	Ionising Radiation Regulations (1999)
JESIP	Joint Emergency Services Interoperability Programme
LA	local authority

Level 1 Demonstration Emergency Exercise: An exercise selected from an operator's emergency arrangements training programme that aims to convince ONR that the operator's arrangements produce teams that can manage emergencies on the site.

Level 2 Demonstration Emergency Exercise: An exercise that tests the REPPIR off-site emergency response with the aim to convince ONR that the arrangements are adequate.

Level 3 Demonstration Emergency Exercise: An exercise that tests the national response arrangements for a nuclear emergency. A comprehensive lexicon of civil protection terminology can be found [here](#).

LRF	Local Resilience Forum
MACA	Military Aide to Civil Authorities
MBC	Media Briefing Centre
MCC	Media Coordination Cell
MoD	Ministry of Defence

NNEPRG	National Nuclear Emergency Planning and Response Guidance
NRW	Natural Resources Wales
ONR	Office for Nuclear Regulation
OSNE	Off-Site Nuclear Emergency
PHE	Public Health England
PHE- CRCE	Public Health England - Centre for Radiation, Chemical & Environmental Hazards
PITs	Potassium Iodate Tablets
REPIR	Radiation (Emergency Preparedness and Public Information) Regulations 2001
RCIS	Redgrave Court Incident Suite (ONR's emergency response centre)
ResCG	Response Coordinating Group – may be activated when multiple SCCs are involved
RGP	Relevant Good Practice
RIMNET	Radiation Incident Monitoring Network
RoA	Report of Assessment: a report produced by the operator that describes the bounding consequences of an emergency for planning purposes, based on the HIRE
SAGE	Scientific Advisory Group for Emergencies: A group of experts convened to coordinate and peer review scientific and technical advice, reporting to COBR
SCC	Strategic Co-ordinating Centre
SCG	Strategic Coordination Group
SEPA	Scottish Environmental Protection Agency
SFAIRP	So far as is reasonably practicable
SGoRR	Scottish Government Resilience Room
SIMCELL	Driving cell who send injects to participants in real time during the exercise
SITREP	Situation Report: an agency report describing the current situation and any actions taken so far in the response.
SMAC	Strategic Media Advisory Cell
SQEP	Suitable qualified and experienced person(s)
STAC	Scientific Technical Advisory Cell
TCC	Technical Coordinating Centre
TCG	Tactical Coordinating Group