

**SUFFOLK LOCAL AUTHORITIES
OFFSITE EMERGENCY PLAN FOR SIZEWELL NUCLEAR POWER STATIONS
COMPLIANCE WITH THE *RADIATION (PUBLIC INFORMATION & EMERGENCY PREPAREDNESS) REGULATIONS (REPPIR)***

This is one of the first REPPIR plans to be published which, in itself, might give reason for its uncertainty, lack of detail and, in sections, failure to satisfy the Regulations.

Essentially, the Local Authority (here Suffolk County Council) seems to consider its REPPIR duties to be mainly that of coordinating existing resources and facilities to act in the event of a radiation emergency. This approach assumes that the emergency services and the local authority itself each already have in place adequately prepared actions and countermeasures to cover all possible radiation emergencies. Indeed, there seems to be little in the Plan that is uniquely set against a radiation based emergency as distinct from any other emergency and, other than their on-site response plans, the Fire Brigades and Police do not seem to have proven plans to implement in the public off-site domain.

With the Police taking the leading role it is surprising that no pre-prepared radiological management scheme seems to be in place for the police force and individual officers. Similarly, specific radiation exposure limits are not defined for the other two emergency services and employees of the Local Authority who might be expected to be practicably involved in the immediate aftermath of a radiation emergency have not been nominated (named), trained or equipped with radiation dosimetry and protective equipment. With no cognisance of different limits for the emergency services and local authority personnel, there are no pre-arrangements for how cover is to be maintained if one group of workers has to withdraw upon reaching its exposure limit.

Also, there are no levels of radiation dose exposure specified at which countermeasures would be triggered to protect

members of the public (the ERLs) and even once these have been established by (it is assumed) the NRPB, there are no procedural arrangements of how the countermeasures are to be practicably and efficiently implemented.

Perhaps not surprisingly, the nature and development of the radioactive release is considered to be relatively minor and leisurely. A severe incident, say provoked by terrorist act, which releases significant amounts of radioactivity in the immediate aftermath of the initiating event is not at all considered, with the Plan assuming that Government assistance will be available by the time (several hours at least) that it is necessary to implement countermeasures in the public domain. The Plan is not at all prepared to act in the phase immediately following the initiating event (which is acknowledged to be critical if public consequences are to be minimised) – the Plan assumes that there will be sufficient time to prepare in detail, that every contingency action will run like clockwork, and that resources (both equipment and human) will be more than sufficient.

The assumption underlying virtually all aspects of the Plan is that specialist resources and advice will be immediately available to those operating the Off-Site Plan. For example, it is assumed that knowledgeable personnel and advice will be immediately available from Sizewell power station; that the Police will have sufficient resources to implement evacuation of unspecified numbers of people; and that government advisors will be almost immediately available and fully attuned to the situation.

If, on the other hand, there are shortfalls in these expectations then the Plan contains no contingency or reserves to make up the shortfalls and/or inadequacy.

Example of the ill-prepared state of the local resource is given by the state of preparedness of the local health services who are to provide monitoring, reassurance and advice (including decontamination) to the public – enquiries with these clinics and health centres are met with, first, astonishment and, second, usually admittance that nothing has been prepared in advance (some respondents had no knowledge of the Plan or their involvement in it).

There is nothing in the Plan to account for terrorist actions against the nuclear plant nor, indeed, that such action may include for the intentional disabling or hindering implementation of the off-site emergency plan.

So far as keeping the public informed during the emergency, a key requirement of these *'Public Information'* regulations, the Plans sets aside three meagre and very general paragraphs that leaves much of the information dissemination to the discretion of the Police. Within this role, the Police are also to be responsible for advising the public on sheltering and evacuation but acting alone, as may be the case in the first few hours of any radiation emergency, it is doubtful that the Police have the knowledge, competence and experience to make and implement such crucial decisions.

In the event of a major radiation emergency the Suffolk plan is likely fail to a greater or lesser extent, particularly in the emergency phase immediately following the initiating event, and its lack of detailed preparation and prepared allocation of resources may result in greater rather than lesser consequences in the public domain.

REPPIR REG	REGULATION TOPIC	RELEVANT SECTION OF	SIZEWELL PLAN CONTENT/ARRANGEMENT	COMMENTS
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		PLAN		
THE FOLLOWING APPLIES PARTICULARLY TO THE INITIAL ORGANISATION AND SETTING UP OF THE OFF-SITE PLAN IN THE IMMEDIATE AFTERMATH OF THE INCIDENT, SAY THE FIRST FEW HOURS FOLLOWING THE COMMENCEMENT OF THE RADIATION EMERGENCY				
1	Citation	-	-	
2	Interpretation	-	-	
3	Application	-	-	
4	Hazard Identification and Risk Evaluation	-	Responsibility of the Operator or Carrier	
5	Review of Hazards and Risks	-	Responsibility of the Operator or Carrier	
6	Report of Assessment	-	Responsibility of the Operator or Carrier	
7	Operator's Emergency Plan	-	Responsibility of the Operator	
8	Carrier's Emergency Plan	-	Responsibility of the Carrier	
9	Off-Site Emergency Plan	Overall	The Regulations require the Local authority to ' <i>prepare an adequate off-site emergency plan</i> ' (the Plan)	
9.1	Extent of DEPZ and definition of foreseeable radiation emergencies	Section 1.2	HSE has set this at 2.4km and the Plan states that it should be ' <i>sufficient to cater for the worst accident considered to be a practical possibility.</i> ', although the Regulations require that the Plan cover ' <i>reasonably foreseeable emergencies</i> ' which extends beyond the narrow definition of ' <i>accidents</i> ' and should include all incidents, including terrorist acts. However, the onus for defining the ' <i>reasonably foreseeable emergencies</i> ' is placed with the Operator and not the local authority.	There seems to be no sound or logical basis for the 2.4km DEPZ which seems to have been historically set by the Magnox station. By excluding terrorism the Plan only has to respond to 'manageable' accidents because of the overriding requirement of the Nuclear Installations Act 1965 that no health harm may be caused to any member of the public (ie outside the power station fence) – ie the Operator is most unlikely to admit to an accident severity that would not be compliant with the licensing Act.
9.2	Schedule 7, Part III information on arrangements	Part 4	<p>a) <i>Names/positions of persons in charge:</i> Available in the Plan, although not in a readily referenced section.</p> <p>b) <i>Early warning arrangements:</i> The power station operator initiates the emergency with a 999 telephone call to the Police who, in turn, inform the local authority (the Emergency Plans Team).</p> <p>c) <i>Arrangements for co-ordinating resources:</i> As soon as practicable a 'Local Emergency Centre' would be established (at Suffolk Constabulary HQ) and all involved agencies would send officers to take part in discussions there, reporting back to their own organisations – other than it being implied that the</p>	c) The Plan seems to pass the responsibility over to the Police which may not be with the spirit that it is not just to provide the Plan but also to implement it. The arrangements for separate bodies to convene at the LEC seems not to recognise the urgency of action in the immediate aftermath of the radioactive release – there are no immediate arrangements for dealing with the first few hours, that is there is no LA supremo vested with powers to act immediately.

			<p>Police would co-ordinate resources, there is nothing in the Plan that specifically charges any party with this duty.</p> <p>d) <i>Arrangements for assistance in on-site mitigation actions:</i> Nothing is specified, although is likely to be included within the separate plans of the Police and Fire Brigades (Contingency Plan N° 11 and the Fire Brigades Predetermined Action card N° 10 and the Major Incident Plans for each power station at Sizewell).</p> <p>e) <i>Arrangements for off-site mitigation actions:</i> Only the most generalised countermeasures are given in the Plan (Section 1.4/5) and there are no (radiation dose) actions levels such as Emergency Reference Levels (ERLs) specified, other than that these would be based on the principles set out by the NRPB.</p> <p>f) <i>Providing public information:</i> Sections 3.2 and 3.3 deal with public information before and during an emergency respectively.</p> <p>g) <i>Arrangements for radiation exposure limits and trigger levels:</i> Section 4.10 states that the NRPB is to specify the emergency reference levels (ERLs) at which countermeasures are to be implemented, although there are no interim arrangements for actioning ERLs prior to the arrival of the NRPB representative.</p>	<p>e) The Plan seems to be totally dependent upon monitoring data being provided by the Operator and there is no contingency for the LA to undertake monitoring should the Operator be incapacitated or fully occupied on site – the sister station at Bradwell (who is to provide assistance) may be delayed in arriving in the area if self-evacuation levels are high (as expected).</p> <p>f) The arrangements for providing the public with information during an emergency are very sparse, just 3 paragraphs – the general expectation is that the Police will issue advice and guidance directly or through the LEC. Interestingly, it is assumed that the Police may have some discretionary power in whether to inform the public or not, although members of the public in the 2.4km DEPZ will be informed/advised by the Site Emergency Controller or Local Emergency Centre, although it is not clear which of these two groups have to undertake this responsibility (ie in the confusion it could be neither).</p> <p>g) Surprisingly, the ERLs or countermeasure trigger levels are not cited in the Plan – the Plan assumes that there would be no need to take any countermeasures until the arrival of the NRPB representative, which may be several hours into the emergency. There is no reference whatsoever to any liaison with the three emergency services to reach agreement on the emergency radiation dose level and. indeed, with individual employees of the local authority and transport company bus drivers who may be involved in evacuation countermeasures.</p>
9.3	Range and extremes of emergency	Section 1.2	The range and extremes of the incidents leading to a Radiation Emergency are taken from the Report of Assessment of the Operator.	Limited to <i>Manageable Accidents</i> as previously discussed under Reg 9.1. Outcome of an accident explained in the most general of terms and that accidents are “ <i>reduced to a very low level of chance of an accident which might lead to the emission of even (sic) small amounts of radioactivity to the atmosphere</i> ”
9.4	Administrational			
9.5	Information from the Operator	Section 1.5	The requirement that the Operator provide additional information as requested by the Local Authority in order to prepare the Plan.	In the most general terms.
9.6	Review of ditto			Not covered.

9.7	Administration of ditto			Not covered.
9.8	Administration of ditto			Not covered.
9.9	Administration of ditto			Not covered.
9.10	Pt I Schedule 8		Applies the <i>Benefit v Detriment</i> and ALARP principles to the dose exposure	Principles are not incorporated into the Plan – ie completely overlooked.
9.11	Pt II Schedule 8	Section 4	Requires the Plan to provide for reducing or stopping the direct radiation source and reducing the transfer of radioactive substances to people from the environment	Generally, these are longer term issues to do with foodstuff controls and decontamination controls. However, the Plan acknowledges that (Section 4) many people may self-evacuate but it makes no specific provision for the movement controls and decontamination of vehicles and people self-evacuating – larger vehicles may be decontaminated and contaminated persons are to be referred to Ipswich Hospital.
9.12	Consultation		Local Authority should consult with operator and other persons etc., it considers appropriate – there seems to have been no direct consultation with members of the public or local interest groups, other than via the Local Community Liaison Council which meets twice a year at the power station	There is a high involvement local group (Stop Sizewell) active in the area but this group has not been consulted. The consultation with the local fire brigade and ambulance services seems to have been limited to the detailed procedural plans that centre about the power station and not in the areas of the wider public community (Section 4.3)
9.13	Confirmation that the Plan is in Place		Notification to the Operator	
9.14	Instruction and Training to employees		The employer of any employee who may be required to participate in the implementation of the Plan shall ensure that employees are provided with sufficient information and training and the equipment necessary to minimise the radiation dose exposure.	There is nothing in the Plan that refers to pre-emergency training and instruction for employees, etc., who would be required to work in the potentially contaminated and radiologically active zones, there is no listing of radioactive protective and monitoring equipment (film badges and dosimeters), and no radiation dose limitation system prescribed. Other than reference to HS(G)63 1991 which outlines arrangements for employers to protect their employees the Plan provides very little information on the detailed arrangements necessary for radiation protection of those involved in managing the emergency. However, specific groups of individual employees, etc., are identified to be in engaged in activities that

				<p>could result radiation exposure, these are:</p> <p>Police will man Check Points or CPs to control the movement of people and traffic, both of which may be contaminated and radiologically active – there are no published dose limits or information on the dosimetry equipment for police officers manning the CPs.</p> <p>The Evacuation Centre at Saxmundham is likely to receive contaminated individuals so those manning the Centre would be at risk of radiation dose exposure – there are no published dose limits or information on dosimetry and contamination detection equipment and training for individuals manning the Centre, although Suffolk Coastal Primary Care Trust will establish personal monitoring posts at the Centre, although equipment levels and training are not given in the Plan.</p> <p>Potassium Iodate Tablet distribution is to be overseen by Suffolk Coastal Primary Care Trust, although no limits and personal protective equipment (respiratory) is listed in the Plan.</p> <p>Casualties and contaminated individuals will be moved to Ipswich Hospital but there are no procedures or equipment listings for the hospital personnel and transportation drivers given in the Plan.</p> <p>Evacuation transport will involve personnel from the County Council Educational Directorate although the Plan does not list dosimetry, equipment and training requirements for these personnel. The Plan states that the Police are to monitor (radiologically ?) and record details of drivers entering radiologically contaminated areas, although how this is to be done and for what purpose of control (ie personal dose limit) is not given in the Plan.</p> <p>The elderly and those in hospitals at risk will be the responsibility of the Social Care Services Directorate,</p>
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				although the Plan provides no information on dosimetry and equipment.
10	Review and Testing		Requires the Plan to be periodically reviewed and tested, with the first review and testing to take place within three years of the first version of the Plan being completed	No dates for first testing of the Plan given.
11	Consultation and Co-operation		Requires co-operation between the Operator (Carrier) and the Local Authority	The Plan does not lay out any formal exchanges between the LA and Operator that might improved the effectiveness of the Plan, ie regular meetings, etc..
12	Charges		The Local Authority may charge the operator a fee for preparing and maintaining the Plan	
13.2	Implementation of the Plan		Relates how the Local Authority Plan is to be initiated in the event of a Radiation Emergency	The arrangement is that the Police would inform the Local Authority.
14	Emergency Exposure		This relates to the exposure of employees who are involved in the response to a radiation Emergency (not to other employees who are not directly involved)	<p>In effect, Reg 14 states that if the Plan acknowledges arrangements for exposure of employees – which it does because it nominates employees to attend evacuation from radiologically active areas, etc., - then adequate facilities should be in place to minimise such exposures. This would include the appointment of Radiation Protection Advisors (RPAs) and the following:</p> <ol style="list-style-type: none"> 1) in place prior to any Radiation Emergency: identification of personnel who can receive emergency exposures, ensuring that these are trained and prepared, providing medical surveillance and dosimetry, and specifying the dose limit; 2) at implementation of the Plan in a Radiation Emergency – checking that those who will receive emergency exposures are fit to be exposed, properly equipped and instructed, and assessing the dose received in the emergency exposure; 3) maintaining records of the dose exposures by an Approved Dosimetry Service and reporting thereon. <p>None of these provisions and arrangements are in the Plan. Particularly, those employees likely to be exposed in their response to a radiation Emergency have only been identified in the most general way. Also, the Plan does not identify and authorised any person who is to sanction and permit employees</p>

				to be subject to emergency exposure. The Regulations also prohibit persons under 18 years of age and female employees who are pregnant or breastfeeding from being subject to emergency exposure – there is nothing in the Plan that isolates these individuals from emergency exposure (in response to a Radiation Emergency).
15	Disapplication of Dose Limits		This enables the existing (normal) dose limits of the 1999 Ionising Radiations Regulations to be disapplied.	There is no guidance in the Plan on this.
16	Prior Information to the Public		Requires the Operator (or Carrier) to provide prior information to the public and that the Local Authority shall be consulted on this.	The Plan refers to the distribution of an annual calendar, together with NRPB leaflets.
17	Duty of Local Authority to supply information to Members of Public		The Local Authority must have arrangements in place to supply information to the public in the event of a Radiation Emergency, including facts about the emergency, what steps are to be taken and the appropriate health protection measures.	Comprises just 3 paragraphs in the Plan with the Police acting as the lead authority, other than in the longer term where the LA will be responsible for information. There is nothing on exactly what the 'arrangements' are, how these are to be kept up to date and no reference is made to the specific requirements of Schedule 10.
18	MoD Exemptions			
19	Enforcement and Offences			
20	Transitional Provisions			
21	Amendment			
22	Revocation and Saving			