



EDF Energy Nuclear Generation Limited Emergency Arrangements

Approval of Revised Emergency Plans for all EDF Energy Nuclear Generation Limited Nuclear  
Licensed Sites

Project Assessment Report ONR-OFD-PAR-18-024  
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## EXECUTIVE SUMMARY

### Approval of Revised Emergency Plans for all EDF Energy Nuclear Generation Limited Nuclear Licensed Sites

#### Permission Requested

For each of its nuclear licensed sites, the Licensee requested ONR's approval under Licence Condition 11(3) to replace the current approved emergency plans with revised plans to reflect changes in the organisations, practices and scope of the emergency plans.

#### ONR assessment and conclusions

The approach that EDF Energy Nuclear Generation Limited (EDF-NGL) used was to prepare a Generic Emergency Plan, which could then be used to derive consistent emergency plans for all of the sites.

ONR specialist inspectors in nuclear safety and nuclear security engaged with the licensee whilst it developed the Generic Emergency Plan and then assessed a sample of the site specific emergency plans. They judged that the site-specific plans reflected the necessary changes and were suitable for approval.

#### Recommendation

I have recommended that the Deputy Chief Inspector and Director for Operating Facilities Division should sign approvals to replace the emergency plans with the revised versions at each site.

## LIST OF ABBREVIATIONS

EDF-NGL	EDF Energy Nuclear Generation Limited
EPCC	Emergency Planning Consultative Committee
EPCG	the Emergency Planning Coordination Group
LC	Licence condition
LI	Licence instrument
NISR	Nuclear Industries Security Regulations 2003 as amended in 2006
REPPIR	Radiation Emergency Preparedness and Public Information Regulations 2001

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## 1 PERMISSION REQUESTED

1. For each of its nuclear licensed sites, the Licensee requested ONR's approval under Licence Condition 11(3) to replace the current approved emergency plans with revised plans.

## 2 BACKGROUND

2. EDF Energy Nuclear Generation Limited (EDF-NGL) operates fifteen nuclear reactors at the following seven nuclear licensed sites:

- Dungeness B
- Hartlepool
- Heysham
- Hinkley Point B
- Hunterston B
- Sizewell B
- Torness

3. For each site, Licence Condition (LC) 11(1) requires the licensee to “make and implement adequate arrangements for dealing with any accident or emergency arising on the site and their effects”. Each site has an emergency plan which is a standalone document containing the principles for the emergency preparedness. The more detailed arrangements are described in the licensee’s emergency handbook for each site, which is based on the principles in the emergency plan. As well as meeting the requirements for the site licence, the plan and associated handbook also form the arrangements for compliance with:

- Radiation Emergency Preparedness and Public Information Regulations 2001 (REPPiR)
- Nuclear Industries Security Regulations 2003 as amended in 2006 (NISR)

ONR is the regulator for these regulations for the EDF-NGL sites.

4. The emergency plans were approved by ONR or its predecessor organisations by issue of licence instruments (LI) as follows:

- Dungeness B Emergency Plan DNB/EMPREP/001, Revision 012 dated April 2008 (Ref 1) approved by LI No 520 (Ref 2) dated 11 June 2008
- Hartlepool Power Station Emergency Plan HAR/TE/R/026/129 Issue 5 dated April 2007 (Ref 6) approved by LI No 516 (Ref 7) dated 30 April 2007
- Heysham Power Stations Emergency Plan HEY/EMGY/1 Issue 17 dated March 2007 (Ref 11) approved by LI No. 531; HB/REPS/RH016 Issue 9 (Ref 12) dated 5 April 2007
- Hinkley Point B Power Station Emergency Plan HINB/EHB/SEC/01 Revision 005 dated April 2007 (Ref 16) approved by LI No 517 (Ref 17) dated 30 April 2007
- Hunterston B Power Station Emergency Plan HPS/EP Rev 19 dated August 2010 (Ref 21) approved by LI No. 530 (Ref 22) dated 23 February 2011
- Sizewell B Emergency Plan SZB EM HBK SEC 1 Issue 010 dated December 2014 (Ref 26) approved by LI No. 546 (Ref 27) dated 22 December 2014
- Torness Power Station – Emergency Plan TSP/EP/1.1 Revision 009 dated November 2006 (Ref 31) approved by LI No. 507 (Ref 32) dated 24 April 2007

5. EDF-NGL wants to revise the emergency plan for each site to reflect:

- Integration of the response to security incidents
- Changes in organisations involved in the plans

- Evolution of practices in emergency response
  - Availability of additional emergency response equipment stored at central locations away from the sites
6. Under LC 11(3), EDF-NGL can only implement a new plan after receiving a new approval from ONR for the revised plans. This means that the plans cannot be changed without ONR's approval of the changes. EDF-NGL has therefore prepared revised plans and submitted requests for approvals as follows:
- EDF-NGL letter NSLDNB50967R dated 7 August 2018 (Ref 3) requesting approval of Dungeness B Nuclear Power Station Emergency Plan DNB/EMPREP/001 Revision 014 dated September 2017 (Ref 4)
  - EDF-NGL letter NSL-HRA-51170R dated 23 August 2018 (Ref 8) requesting approval of Hartlepool Nuclear Power Station Emergency Plan HAR-EMER-PLAN/001 Revision 006 dated September 2017 (Ref 9)
  - EDF-NGL letter NSL/HYB51090R dated 31 July 2018 (Ref 13) requesting approval of Heysham 1 and 2 Nuclear Power Stations Emergency Plan HEY/EMGY/1 Revision 018 dated September 2017 (Ref 14)
  - EDF-NGL letter NSL HPB 51413 N dated 4 December 2018 (Ref 18) requesting approval of Hinkley Point B Power Station Emergency Plan HINB/EHB/SEC/01 Revision 012 dated September 2017 (Ref 19)
  - EDF-NGL letter NSL HNB50546N dated 1 August 2018 (Ref 23) requesting approval of Hunterston B Nuclear Power Station Emergency Plan HPS/EP Revision 020 dated September 2017 (Ref 24)
  - EDF-NGL letter NSL SZB 50861R dated 24 September 2018 (Ref 28) requesting approval of Sizewell B Nuclear Power Station Emergency Plan SZB EM HBK SEC 1 Revision 014 dated March 2018 (Ref 29)
  - EDF-NGL letter NSL/TOR/50624R dated 01 August 2018 (Ref 33) requesting approval of Torness Nuclear Power Station Emergency Plan TSP/EP/1.1 Revision 010 dated September 2017 (Ref 34)

### **3 ASSESSMENT AND INSPECTION WORK CARRIED OUT BY ONR IN CONSIDERATION OF THIS REQUEST**

7. The approach that EDF-NGL used was to prepare a Generic Emergency Plan (within Ref 36), which could then be used to derive consistent emergency plans for all of the sites.
8. ONR therefore engaged with the licensee during development of the Generic Emergency Plan with a series of comments and meetings to ensure that it provided a suitable framework for the individual plans. An emergency preparedness specialist was consulted at an early stage. I took into account his comments and reviewed later drafts with a security specialist inspector. The key comments in the final set of comments sent to EDF-NGL (Ref 37) were:
- Minimum manning levels on the site should be included – this is an important element of the emergency plan which ensures that there are sufficient staff on site to deal with the early phases of an emergency and was not in the original plans.
  - The map of the Detailed Emergency Planning Zone (DEPZ) should be left out. Under REPPiR, ONR determines the DEPZ and hence controls this. Leaving it in would mean that the licensee would have to make unnecessary changes to the plan when ONR re-determines the DEPZ.
  - The Security Manager's emergency role needed to be described as this had been left out in integrating security events into the plan.

9. The security specialist inspector has reviewed the revised emergency plans (Ref 38) and concluded that whilst they could be improved, they are adequate to allow approval.
10. I have reviewed the safety elements of the revised emergency plans by reviewing the Generic Plan and then sampling a number of the site specific plans. For the Generic Emergency Plan, I have found that the comments in para 8 had been adequately addressed. I also find that the site specific plans reflected the Generic Emergency Plan. I therefore judged that the ONR comments had been adequately addressed and that the revised emergency plans are suitable for approval.
11. An important part of the licensee's arrangements is that the Emergency Planning Consultative Committee (EPCC) for English sites and the Emergency Planning Coordination Group (EPCG) for Scottish sites are consulted for changes to emergency plans. I requested that EDF-NGL should provide evidence that these two bodies had been consulted in preparing the plans for approval. It has provided a series of emails within Ref 36 and I judge that these show an adequate level of consultation.

#### **4 MATTERS ARISING FROM ONR'S WORK**

12. The nuclear security specialist and I have both judged that the revised emergency plans are suitable for approval. On that basis I have prepared the following licence instruments:
  - Dungeness B – Approval no 558 (Ref 5)
  - Hartlepool – Approval no 567 (Ref 10)
  - Heysham – Approval no 621 (Ref 15)
  - Hinkley Point B – Approval no 558 (Ref 20)
  - Hunterston B – Approval no 560 (Ref 25)
  - Sizewell B – Approval no 554 (Ref 30)
  - Torness – Approval no 555 (Ref 35)

These have been written according to ONR guidance and are of routine type, for which the text and format have been agreed with the Government legal department. Further legal checking of these licence instruments is therefore unnecessary.

13. For Hartlepool, request letter (Ref 8) refers to the extant emergency plan (Ref 6) as having the reference HAR/EMER-PLAM/001 Revision 006, whereas the document referred to in the extant LI, Approval no 516 (Ref 7) has the reference HAR/TE/R/026/129. I note that the emergency plan itself has both references on it and hence it is clear that both the request letter and the LI refer to the same document. I have therefore accepted the request letter as valid and used the referencing from Approval no 516 on the new Approval no 567 (Ref 10).
14. For the approvals, the licensee needs time to implement the revised plans and hence I have consulted EDF-NGL on the date when it wants the approval to come into force. On the basis of the approvals being issued by 15 December, it has advised that they should come into force on 31 January 2019 (Ref 36).
15. The revised emergency plans relate to matters of nuclear safety and security. I therefore do not consider that consultation with other Government departments or agencies is warranted. Nor do I judge it necessary to consult with ONR communications staff regarding media aspects.
16. The licensee's arrangements require it to review the emergency plans by September 2020. To provide additional confidence that this review will be undertaken, I have asked EDF-NGL to confirm that it will and it has provided this in Ref 39.



## 5 CONCLUSIONS

17. This report presents the findings of the assessment of the revised emergency plans for the seven EDF-NGL nuclear licensed sites in response to the licensee's request for ONR to allow them to replace the currently approved plans.
18. The revised plans cover the response to events challenging both nuclear safety and security. Both the nuclear security specialist and I have assessed the plans and judged that they are suitable for approval.
19. I conclude that ONR should approve the revised emergency plans for all sites.

## 6 RECOMMENDATIONS

20. I recommend that the Deputy Chief Inspector and Director for Operating Facilities Division signs the approvals to replace the emergency plans with the revised versions.

## 7 REFERENCES

### Dungeness B

1. Dungeness B Emergency Plan DNB/EMPREP/001, Revision 012 dated April 2008  
Trim ref 2018/257954
2. Dungeness B Licence Instrument Approval No 520 dated 11 June 2008  
Trim Ref 2018/317860
3. EDF-NGL letter NSLDNB50967R dated 7 August 2018  
Trim ref 2018/312867
4. Dungeness B Nuclear Power Station Emergency Plan DNB/EMREP/001 Revision 014 dated September 2017  
Trim ref 2018/328773
5. Dungeness B Licence Instrument Approval No 558 dated December 2018  
Trim ref 2018/248595

### Hartlepool

6. Hartlepool Power Station Emergency Plan HAR/TE/R/026/129 Issue 5 dated April 2007  
Trim ref 2018/257901
7. Hartlepool Power Station Licence Instrument Approval No 516 dated 30 April 2007  
Trim ref 2018/258158
8. EDF-NGL letter NSL-HRA-51170R dated 23 August 2018  
Trim ref 2018/312867
9. Hartlepool Nuclear Power Station Emergency Plan HAR-EMER-PLAN/001 Revision 6 dated September 2017  
Trim ref 2018/328747

10. Hartlepool Power Station Licence Instrument Approval No 567 dated December 2018  
Trim ref 2018/249191

#### Heysham

11. Heysham Power Stations Emergency Plan HEY/EMGY/1 Issue 17; HPB/RESP/RH016 Issue 9 dated March 2017  
Trim ref 2007/68988
12. Heysham Licence Instrument Approval No. 531 dated 5 April 2007  
Trim ref 2018/258111
13. EDF-NGL letter NSL/HYB51090R dated 31 July 2018  
Trim ref 2018/312867
14. Heysham 1 and 2 Nuclear Power Stations Emergency Plan HEY/EMGY/1 Revision 018 dated September 2017  
Trim ref 2018/328764
15. Heysham Licence Instrument Approval No. 621 dated December 2018  
Trim ref 2018/248604

#### Hinkley Point B

16. Hinkley Point B Power Station Emergency Plan HINB/EHB/SEC/01 Revision 5 dated April 2007  
Trim ref 2018/257927
17. Hinkley Point B Licence Instrument Approval No. 517 dated 30 April 2007  
Trim ref 2018/258240
18. EDF-NGL letter NSL HPB 51413N dated 4 December 2018  
Trim ref 2018/399842
19. Hinkley Point B Nuclear Power Station Emergency Plan HINB/EHB/SEC/01 Revision 012 dated September 2017  
Trim ref 2018/328735
20. Hinkley Point B Licence Instrument Approval No. 558 dated December 2018  
Trim ref 2018/249184

#### Hunterston B

21. Hunterston B Power Station Emergency Plan HPS/EP Rev 19 dated August 2010  
Trim ref 2018/257920
22. Hunterston B Licence Instrument Approval No. 530 dated 23 February 2011  
Trim ref 2018/317868
23. EDF-NGL letter NSL HNB50546N dated 1 August 2018  
Trim ref 2018/312867
24. Hunterston B Nuclear Power Station Emergency Plan HPS/EP Revision 020 dated September 2017  
Trim ref 2018/328769
25. Hunterston B Licence Instrument Approval No. 560 dated December 2018  
Trim ref 2018/249185

### Sizewell B

26. Sizewell B Emergency Plan SZB EM HBK SEC 1 Issue 010 dated November 2014  
Trim ref 2018/257973
27. Sizewell B Licence Instrument Approval No. 546 dated 22 December 2014  
Trim ref 2018/317845
28. EDF-NGL letter NSL SZB 50861R dated 24 September 2018  
Trim ref 2018/317616
29. Sizewell B Nuclear Power Station Emergency Plan SZB EM HBK Sec 1 Revision 014  
dated March 2018  
Trim ref 2018/317815
30. Sizewell B Licence Instrument Approval No. 554 dated December 2018  
Trim ref 2018/248610

### Torness

31. Torness Power Station Emergency Plan TSP/EP.1.1 Revision 009 dated November  
2006  
Trim ref 2018/267747
32. Torness Licence Instrument Approval No. 507 dated 24 April 2007  
Trim ref 2018/258103
33. EDF-NGL letter NSL/TOR/50624R dated 1 August 2018  
Trim ref 2018/312867
34. Torness Nuclear Power Station Emergency Plan TSP/EP/101 Revision 010 dated  
September 2017  
Trim ref 2018/328758
35. Torness Licence Instrument Approval No. 555 dated December 2018  
Trim ref 2018/248589

### Non-site specific

36. Email, EDF-NGL to, ONR dated 26 November 2018  
Trim ref 2018/382745
37. Email ONR to , EDF-NGL dated 26 June 2017  
Trim ref 2018/371907
38. Email, ONR to, ONR dated 28 February 2018  
Trim ref 2018/371958
39. EDF-NGL letter NSL GEN 32674N dated 22 November 2018  
Trim ref 2018/382745