

**HEALTH AND SAFETY EXECUTIVE  
HM NUCLEAR INSTALLATIONS INSPECTORATE**

[\(Click here for guidance on the new SIR format\)](#)

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- 1. VISITING OFFICERS**
- |                |             |
|----------------|-------------|
| <i>Name(s)</i> | <i>ITEM</i> |
| I Bramwell     | All         |
| S Lewis        | 8.1.1       |
| P Stephen      | 8.1.1       |
| M Moore        | 8.1.1       |
| A Mackie       | 8.1.1       |
- 2. DATE (S) OF VISIT** 22 & 23 June 2010
- 3. SITE AND LOCATION OF VISIT** Vulcan Naval Reactor Test Establishment

4.	PURPOSE OF VISIT -				
SIR Para graph	Inspection details (including operating unit / building)	<a href="#">Plan Name.</a>	<a href="#">Div 3 IIS Code</a>	LC / Topic	Outcome Rating
8.1	<a href="#">Planned Inspection</a>				
8.1.1	Emergency Exercise Lonestar 2010	Vulcan	S9	REPPIR	3
8.2	<a href="#">Reactive inspections</a>				
8.3	<a href="#">Licensees project work</a>				
8.4	<a href="#">Other Site Related Work</a>				
8.4.1	Level 4 Regulatory Interface Forum	Vulcan	V1	REPPIR	INF
8.4.2	Safety Walk with Safety Representatives	Vulcan	S9		
8.4.3	Introductory Discussions with NSV	Vulcan	S9		INF
9.0	<a href="#">Recommendations and actions</a>				

**5. PRINCIPAL STAFF SEEN:**

Topic	Names of staff seen for each topic	
8.1.1	Cdr Mick Moreland Lt Cdr Mark Cleminson Lt Richard Jones Lt David Chisholm Pat Gallagher Paul O'Rourke John Owens Cdr Neil Moffatt Lt Cdr Stuart Currie David Fuller	Naval Superintendent Vulcan Deputy Naval Superintendent Assistant Naval Superintendent 1 Assistant Naval Superintendent 2 RR General Manager Team Leader Emergency Arrangements & Security Assurance Manager DNSR Principal Inspector Operational Reactors DNSR Inspector Operational Reactors DSTL
8.4.1	Cdr Mick Moreland Lt Cdr Mark Cleminson Lt Cdr Stuart Currie	Naval Superintendent Vulcan Deputy Naval Superintendent DNSR Inspector Operational Reactors
8.4.2	Robin Young	Chair of Safety Representatives

8.4.3	Cdr Mick Moreland	Naval Superintendent Vulcan
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## **6. POINTS OF INTEREST TO OTHER SITES/SITE INSPECTORS**

See Summary

## **7. SUMMARY**

A joint NII-DNSR team assessed the Grade B emergency exercise Lonestar 2010 which was the site's triennial demonstration under REPPIR. I also attended a Level 4 RIF to receive an update on site operations and future intentions under REPPIR. Mr Lewis held introductory discussions with NSV.

## 8. REPORT

### 8.1 Planned Inspection

#### 8.1.1 Emergency Exercise Lonestar 2010

A joint NII-DNSR team assessed the Grade B emergency exercise Lonestar 2010 which was the site's triennial demonstration under REPPIR. The site gave a strong performance and it was clear that lessons had been learned from previous exercises. Mr Lewis commented that the performance was among the best he had seen across the industry.

The exercise was a strong demonstration of the site's capabilities to respond to a nuclear emergency at Vulcan NRTE. There was good command and control demonstrated at all levels during the response, clear MoD control and strong evidence of lessons being learned from previous demonstration exercises. The scenario was suitably challenging and benefitted from being played in closer to real time than has been the case in the past. This allowed responders time to become properly organised, to plan, prepare and then deliver interventions. The deviation from the storyboard when the reported doserates were higher than anticipated allowed demonstration of strong, and correct, decision-making processes in not allowing an intervention to proceed.

The DECC showed strong tactical control and good integration of the MoD(V) and DSRL support staff. The DECC coped well with pressures applied by both the developing scenario and the demands of the simulated Strategic Co-ordinating Centre. In the VECC, there was good command and control, good separation of the Site Controller team and Technical Cell and clear evidence that it was implementing the intentions of the MoD Incident Commander in the DECC. The preparation and briefing of intervention teams was much better than previously demonstrated.

Observations and comments on each of the areas is provided below:

#### Dounreay Emergency Control Centre

- There was quick and effective close-up of the DECC.
- There was a clear and effective handover from the initial DSRL staff to the MoD(V) Incident Commander on his arrival in the DECC.
- A regular briefing routine was established. These briefings were effective for much of the time but towards the end of the exercise the effect of new information (especially Testimony Category 3) on the IC's intentions was not clear.
- There was a clear controlling mind evident throughout the exercise.
- There was effective communication between the DECC and VECC.
- It was a good decision not to authorise an intervention when the reported doses and doserates were higher than intended by the storyboard.
- There were no Vulcan-specific maps in use in the DECC. It is understood that such maps are available so they should be used.
- There was good use of the boards such that it was possible to arrive at any point during the exercise and understand the prevailing situation. However, the intentions board could have been clearer (there is no need to add after each briefing that the intentions remain the same). Also, the link between the intentions and methods could have been improved by numbering the methods to

link them to the intentions (e.g. intention 1 is delivered by method 1.1, 1.2 etc. This numbering technique was used in the VECC and aided clarity).

**Vulcan Emergency Control Centre (VECC)**

- There was good set-up of the VECC and fast-tracking of those persons needed for the Site Controller's cell.
- There was good separation between the site controller's and technical cells and a good auditable trail of communications.
- It was obvious who was in charge throughout the exercise and the clarity that the Site Controller was carrying out the Incident Commander's intentions was a welcome improvement from 2009.
- Playing the exercise in (closer to) real time worked well and allowed those in the VECC to prepare and brief intervention teams early, which helped to speed up the intervention when a decision was taken to deploy the team. The quality of briefing was extremely good, as was the decision to give the generic briefings early, which only left the task-specific briefing to be given once the task and the nature of the hazard was known.
- The decision not to proceed with the planned intervention when the (simulated) doses were too high was sound and this deviation from the storyboard actually helped to improve confidence in the site's arrangements. Once DISTAFF reduced the doserates, the approval process for the REPPIR lifesaving intervention was rapidly carried out.

**Emergency Radiological Incident Centre (ERIC)**

- ERIC works well and has disciplined arrangements. It was set-up and deployed quickly. A shift handover was incorporated into the exercise.
- Elevated doserates at Category 2 were flagged-up quickly.
- The automated production of worst case radiological consequence information needs to be reconsidered. It would be better to consider issuing a more realistic, but still conservative, estimate of radiological release based on the reference accident approach now adopted by much of the naval propulsion programme.
- For future exercises, DISTAFF need to provide radiological information to ERIC in the format that they would generate it, to avoid the need for ERIC to have to interpret the information into different units for analysis.

**Nuclear Accident Response Information Management System (NARIMS)**

- Lots of information was put onto NARIMS and it was used well.

**Strategic Co-ordinating Centre (SCC) SIMCELL**

- The SCC SIMCELL worked well in putting pressure on DECC. There was, however, a lack of information flow from DECC/ERIC to SCC to enable them to take decisions in relation to implementation of the off-site plan.

**8.2 Reactive Inspection**

None this visit

**8.3 Licensees Project Work**

None this visit

## 8.4 Other Site Related Work

### 8.4.1 Level 4 Regulatory Interface Forum

I attended the Level 4 RIF with NSV, DNS and DNSR. Discussions included an update on site operations, and intentions with regard to REPPiR.

### 8.4.2 Safety Walk with Safety Representatives

I completed a short safety walk of changeroom facilities in ATB, STF and DSMP1 with two of the site's safety representatives.

### 8.4.3 Introductory Discussions with NSV

Mr Lewis held introductory discussions with the Naval Superintendent, who has been appointed to the position since Mr Lewis's last visit to site.

## 9. FINDINGS, OBSERVATIONS AND ACTIONS IN HAND

**Note:** Issues are denoted 'I' in column 1: Actions are denoted 'A'.

Against issues - Category: C = Compliance, S = Strategy, R =Reputation

- Priority: H = High, M = Medium, L = Low

Review and completion dates are set against Issues but only completion dates against actions.

### 9.1 Issues/Actions this Visit

None – recommendations from IRRs inspection will be followed-up as part of routine business and not recorded as Actions.

### 9.2 Issues/Actions from previous visits

Type	No.	Action	Who	Status	Completion/ Review date
I Cat= C Pr=L	FINDING VULC004/2009/ 1	Vulcan NRTE should clearly define the process for procuring radiography sources.	Vulcan	Time did not allow the completed process to be reviewed on the current visit. Held over to next site visit.	R – Mar 2010 R – Dec 2010
I Cat= C Pr=L	FINDING VULC004/2009/ 2	The roles and responsibilities of personnel involved in procurement of radiography sources should be clearly defined.	Vulcan	Time did not allow the completed process to be reviewed on the current visit. Held over to next site visit.	R – Mar 2010 R – Dec 2010
A	ACTION VULC004/2009/ 4	Site Inspector to find out the arrangements for offshore radiological	Ian Bramwell		R – Mar 2010

**Site Inspection Report No: VULC 002 / 2010**

Type	No.	Action	Who	Status	Completion/ Review date
		monitoring at Hinkley Point and Sizewell.			

**Signed**.....  
I Bramwell

**Date: 24 June 2010**

**Distribution:**

TRIM File                    4.5.157  
Electronic copy            Unit 3 A  
                                  Lt Cdr S Currie, DNSR  
                                  Lt Cdr M Cleminson, MoD(V)