

Intervention Record			
Unique Document ID and Revision No.:	ONR-SDFW-IR-21-193 Revision No.: 1	Record Ref.:	2022/24462 [4.5.10390.]
Location and purpose of Intervention:	Springfields Fuels Ltd. LC32 Intervention Accumulation of radioactive waste and LC33 Disposal of radioactive waste LC34 Leakage and escape of radioactive material and radioactive waste		
Inspector(s) taking part in Intervention:	[REDACTED] - Nuclear Liabilities Regulation		
Date(s) of Intervention:	23 March 2022		

Principal Staff Seen

The roles of principal staff seen, including those from licensees or other government departments (for example, the Environment Agency) seen during the visit

Record Section	Organisation	Role	Name
All	Environment Agency	[REDACTED]	[REDACTED]
2.1	Springfields Fuels Limited	[REDACTED]	[REDACTED] [REDACTED]
2.2	Springfields Fuels Limited		
2.3	Springfields Fuels Limited	[REDACTED]	[REDACTED] [REDACTED]
In addition, at the Closing Meeting	Springfields Fuels Limited	[REDACTED]	[REDACTED]

(A) System / Structures Based Inspection Ratings					
Complete this section only where a System / Structures Based Inspection takes place. If Licence Condition not applicable, enter "n/a"					
Record Section	System / Structures Based Inspection Details	Plan Name	Licence Condition (LC)	Rating	P/ RUP*
	NA				
Overall judgement that the System / Structure adequately fulfils the requirements of the safety case. Please delete "Yes" or "No" in the box provided as applicable.				Yes / No	

* P = planned, RUP = reactive unplanned

(B) Intervention Ratings

Complete this section only where applicable, e.g., for a compliance inspection or assessment where the duty holder's arrangements are being rated. If not applicable, enter "n/a". Complete Part A in respect of System / Structures Based Inspection

Record Section	Intervention Details	Plan Name	LC / Series Code	Rating	P / RUP*
2.1	LC 32 Accumulation of Radioactive Waste Planned Inspection	Springfields IIS	32	Green	P
	LC 33 Disposal of radioactive waste	Springfields IIS	33	Green	P
2.2	LC 34 Leak and escape of radioactive material and radioactive waste	Springfields IIS	34	Green	P
2.1 & 2.2	Joint Inspection with OGD	Springfields IIS	101	N/A	P

* P = planned, RUP = reactive unplanned

(C)- Intervention Ratings Note: For use only by CNS and cross-ONR programmes

Complete this section only where applicable for a Security/ Transport/ Safeguards/ Conventional Safety/Fire Inspection. If not applicable, enter "n/a". Complete Part A in respect of System / Structures Based Inspection, if applicable.

Record Section	Intervention Details	Plan Name	Series Code	Rating	P / RUP*
	NA				

* P = planned, RUP = reactive unplanned

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1. Executive Summary

1.1. Purpose of Intervention

1. This inspection was carried out at Springfields Fuels Ltd (SFL) jointly with the Environment Agency focusing on the management of radioactive waste on the Magnox island demolition project and on site storage arrangements. It was a planned inspection identified on the 2021/22 inspection schedule. The inspection focused on the requirements of Licence Condition (LC) 32 (Accumulation of Radioactive Waste), LC33 (Disposal of radioactive waste) and LC34 (Leakage and escape of radioactive material and radioactive waste).

1.2. Interventions Carried Out by ONR

2. This inspection focused on compliance against LC32, LC33 and LC34. It comprised of discussions with staff, review of documents plus an inspection of the facilities. The inspection was carried out in line with ONR's Technical Inspection Guides (TIG), ([Office for Nuclear Regulation \(ONR\) Compliance inspection - Technical inspection guides](#)).

1.3. Explanation of Judgement if Safety System Not Judged to be Adequate

3. Not applicable as this was not a System Based Inspection.

1.4. Key Findings, Inspector's Opinions and Reasons for Judgements Made

4. Regarding LC32, based on the evidence sampled as part of this inspection, I judged that the required standard is met and an inspection rating of Green.

5. Regarding LC33, SFL provided documentation prior to the intervention which was reviewed. This was deemed adequate in response to the requirements of this LC and an inspection rating of Green was deemed appropriate.

6. Regarding LC34, based on the evidence sampled as part of this inspection, I looked at the controls in place to ensure there were suitable systems in place covering the raft where radioactive material and waste is stored. I judged that the required standard was met and the inspection rating was Green, though I raised one Level 4 Regulatory Issue. This issue covered the requirements for SFL to justify that the current packages used to store radioactive material and waste meet the safety case requirements and ONR LC34 TIG.

1.5. Conclusion of Intervention

7. Based on the evidence sampled I consider that an inspection rating of Green was appropriate. One Level 4 (lowest level) Regulatory Issue (RI10753) has been raised to ensure that SFL has evidence that the packages used to store radioactive material and waste on the raft met the safety case and ONR LC34 TIG requirements.

8. It was noted that the ongoing embargo of very low level waste consignments to Suez Clifton Marsh landfill was starting to have an effect of accumulation of radioactive waste on site. SFL had implemented mitigations using another landfill site, but this might have financial implications to the ongoing decommissioning projects in the long run if Clifton Marsh does not become available again.

2. Record

9. This inspection focused on LC32, LC33 and LC34 arrangements covering Waste Management operations of the Magnox island demolition project located on the Springfields site and the raft used to store radioactive material and wastes pending disposal.
10. The inspection covered the generation, management and disposal of solid radioactive waste. The inspection briefly touched upon how radioactive waste effluent would be detected as part of the inspection.
11. The waste forms generated from the operations is a mixture of solid low level, very low level waste and out of scope waste via the site waste collection processes.
12. To inform the inspection, I sampled site wide and local arrangements covering the management and disposal of solid radioactive waste and local supporting documentation.
13. The inspection was formed of face to face meetings along with visit to the Magnox Island decommission project and entry on the raft used to store the waste prior to disposal.
14. This was a joint inspection with the site Environment Agency Inspector

2.1. Site Licence Condition 32 Accumulation of Radioactive waste - ONR Inspection Rating Green

15. The site gave a high level presentation of the facility and its operations covering its management arrangement included the Integrated Waste Strategy.
16. The site is currently holding about 1800 drums of 'residue'. The site was working its way through this holdings and carrying out assay work to ascertain the best disposal route. Some of this waste is expected to be disposed of at LLWR. Some Uranic residues will be transferred to Capenhurst for long term storage. The project is expected to be complete mid-2023.
17. It was noted that the site has started to accumulate very low level waste due to the unavailability of Suez Clifton Marsh due to 3rd party liabilities insurance requirement. There is another landfill site available but there is an additional costs associated with using this option. SFL are having ongoing discussions with Suez, NDA, EA and BIES directly to discuss this issue.
18. Though the site is slowly accumulating waste, it currently believes it has room and the capability to store waste for some time yet and has also started limited disposals to the other landfill site to aid mitigation, though the site recognises this is not ideal

19. SFL uses a mixture of ISO containers and 'jazz' type boxes to hold the waste prior to disposal. The 'jazz' boxes are currently being assessed to confirm they are adequate to store radioactive waste outside.

20. The inspection included a tour of the Magnox island which is currently being demolished. This included a description of how the operations were being undertaken. I noted there appears to be a lot of monitoring stages the generated wastes and I challenged SFL on whether this could be reduced due to the associated manual handling and potential dose update this could have on the staff, especially since the waste was for the most part going to be consigned as radioactive waste rather than out of scope material. SFL stated it would consider its operations to see if improvements could be made. I also noted the final monitoring was carried out outside and challenged SFL on whether this was good practice. SFL noted that the final monitoring and sentencing operations were only carried out in dry conditions but were exploring the use of a tented area to protect against the weather.

21. From the discussions, it appeared that certain radioactive waste (ie mild steel), it was cheaper to dispose of via the landfill option rather than trying to treat it such as grit blasting to release the material as out of scope. It was noted due to the radioisotopes of the contamination, monitoring the waste to confirm it was out of scope was as an issue. The EA inspector seemed to be in agreement with SFL approach.

2.2. Site Licence Condition 33 Disposal of radioactive waste - ONR Inspection Rating Green

22. SFL discussed its arrangements covering LC33. 'Overview of Site Arrangements for Waste Disposal' SSI 253 Rev 1 and 'Compliance with the Site Licence Conditions that do not require the production of formal arrangements' SSI 203 Rev 4. This was briefly discussed with the EA site inspector to ensure that the two regulators would be aligned if ONR has to issue a direction under this LC.

2.3. Site Licence Condition 34 - ONR Inspection Rating Green

23. As part of the inspection we took a tour of the [REDACTED] raft used to store various packages and also redundant hex cylinders. I noted that the condition of some of the ISO containers was in a poor state of repair and SFL had tried to cover the containers with tarpaulins. SFL stated that these were inspected every month and where it was deemed that the container was not fit for purpose, it would be emptied and disposed of via the radioactive waste route process.

24. The raft is connected to the trade wastewater system and monitoring of any water runoff was carried out on a regular basis. Any indication of activity in the water would be investigated accordingly.

25. The Criticality Clearance certificate was reviewed (CCC/264) which defined the inspection period for the various type of packages allowed to be stored. It appeared that the and supporting documentation did not adequate cover the current types of packages being stores and I raised a Lv4 regulatory issue for SFL to update its processes.

3. Summary

3.1. Regulatory Advice

26. No regulatory advice was given

3.2. Regulatory Issues

27. I raised one Regulatory Level 4 Issue (on the ONR Regulatory Issues Database for Springfield Fuels Limited to action:

- Springfields Fuels Limited Shortfall in justifications that packages containing RA waste on the [REDACTED] raft are fit for purpose.

4. Issues

4.1. Issues Raised

Where the intervention identifies a shortfall in regulatory compliance one or more issues should be raised to address the gap and brought to the attention of the duty holder/licensee. The candidate issues should be given a provisional Issue Level in line with the Regulatory Issues Management Process and take account of the expectations in the ONR Inspection Rating Guide (CM9 Ref.: 2016/118606) Issues should be recorded on the ONR Issues Database after the intervention and subsequently tracked and managed.

No	Issue Title	Category	Issue Level	Licensee/Duty Holder Role	Owner (Inspector)	Completion / Review Date
1	RI10753 Springfields Fuels Limited Shortfall in justifications that packages containing RA waste on the [REDACTED] raft are fit for purpose	Nuclear Safety	4	Springfield Fuels Ltd	[REDACTED]	Review dates 1st Sept 2022

4.2. Issues Closed

No	Issue Title	Category	Issue Level	Licensee/Duty Holder Role	Owner (Inspector)	Completion / Review Date
	NA					

Record Approval, Sign-off and Issue

Record Approval and Sign-off

Note: Documents must be finalised on CM9 when signed-off/ approved for issue.

Revision	Name	Responsibility	Executive Summary Approved	Date
0A	[REDACTED]	[REDACTED]		15/04/2022
0	[REDACTED]	[REDACTED]	[REDACTED]	28/4/2022

Version Control

Revision	Date	Description of Change
0A	15/04/2022	1 st draft
0	28/04/2022	1 st issue

Circulation List

Electronic copy unless stated otherwise, e.g., if enforcement action is being considered hard copy records may be needed.

Organisation	Name / Responsibility	Date
Office for Nuclear Regulation	[REDACTED]	28/04/2022
Springfield Fuels Ltd	[REDACTED]	28/04/2022
Environment Agency	[REDACTED]	28/04/2022