Office for Nuclear Regulation

INTERVENTION RECORD			
Unique Document ID and Revision No:	ONR-SDFW-IR-21-154 Revision 0	**CM9 Ref:**	2022/5900
Location and purpose of Intervention:	Westinghouse Springfields Fuels Ltd, Station Rd, Lea Town, Preston PR4 0XJ Compliance Inspection Transport of Radioactive Materials (Class 7 dangerous goods)		
Inspector(s) taking part in Intervention:	[redacted]		
Date(s) of Intervention:	12 Jan 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	Westinghouse SFL	[redacted]	[redacted]
Intro and wash up	Westinghouse SFL	[redacted]	[redacted]
Emergency Control Centre	Westinghouse SFL	[redacted]	
Wash up	Westinghouse SFL	[redacted]	[redacted]
Radiation Risk Assessment Review	Westinghouse SFL	[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*

N/A	N/A	N/A	N/A	N/A	N/A
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.				**N/A**	**N/A**

* P = planned, RUP = reactive unplanned

(B) INTERVENTION RATINGS

Complete this section only where applicable, eg for a compliance inspection or assessment where the dutyholder'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*
N/A	N/A	N/A	N/A	N/A	N/A

* P = planned, RUP = reactive unplanned

(C) INTERVENTION RATINGS - (FOR USE ONLY BY CNS & 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*
All	Compliance Inspection of Westinghouse Springfields Fuels Ltd of RAM against CDG 2009 (as amended) and IRR 2017	SDFW	400/401	**Amber**	P

* P = planned, RUP = reactive unplanned

TABLE OF CONTENTS

1 EXECUTIVE SUMMARY

1. ONR regulates the civil transport of radioactive material by road, rail and inland waterway in Great Britain (GB). The ONR Transport Competent Authority (TCA) is responsible for delivering transport inspection and enforcement activities. This inspection forms part of that function with reference to Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG), the Ionising Radiations Regulations 2017 (IRR17) and the Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPIR19).

1.1 Purpose of Intervention

2. The purpose of the inspection was to review Springfields Fuels Ltd's (SFL) arrangements associated with the safe road transport of radioactive material.

1.2 Interventions Carried Out by ONR

3. The inspection sample examined:

- a suitable and sufficient radiation risk assessment (RRA) – IRR17 Regulation 8;
- suitable and sufficient Contingency Planning and/or Emergency Arrangements – IRR17 Regulation 13 and CDG 2009 Regulation 24 & Schedule 2.

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

4. The inspector examined the arrangements deployed by SFL for the safe transport of radioactive materials, including the associated arrangements for protecting workers against the effects of ionising radiations.

5. The inspector compared relevant statutory requirements with both prescribed arrangements and actual practice. The inspector identified a number of examples of the duty-holder meeting relevant good practice, including their emergency incident management process. The inspector identified one non-compliance related to their Radiation Risk Assessment.

6. During the inspection, the inspector also suggested certain improvements to transport practices that would be prudent for SFL to consider.

1.4 Conclusion of Intervention

7. SFL demonstrated overall that for those aspects examined it met the requirements of CDG, ADR, IRR17 and REPPIR19. One non-compliance with relevant legislation was identified and SFL undertook to address this issue.

ONR will monitor progress with the non-compliance through routine regulatory business.

2 RECORD

2.1 Inspection Overview

8. During this inspection, I met with those persons listed at the front of this report.

9. The dutyholder is a Nuclear licenced site regulated by ONR, this inspection was focused on the transport aspects of the operations. The initial scope included the following aspects:

- Management arrangements
- Radiation Risk Assessment – IRR17 for transport
- Emergency Plans
- Training

10. Due to a number of factors the final inspection scope was limited to:

- Radiation Risk assessment – IRR17 for transport
- Emergency response arrangements – not including details of the plan.

11. The inspection was carried out in conjunction with an ONR Civil Nuclear Security and Safeguards Inspector, the security aspects of the inspection have been reported separately in ONR-CNSS-IR-21-178

2.1.1 Intro and overview

12. The dutyholder provided ONR with an overview of their management structure, identified key staff and their interactions. I was content that the organisation has defined roles and responsibilities for the key staff involved in the day to day transport activities.

13. I queried the approach taken with regards to training and the dutyholder provided me with a suitable description of the processes in place to ensure staff are trained. Due to time constraints this was the limit of my inspection with regards to training.

14. The dutyholder provided me with a forward plan of transport activities and package approvals required.

2.1.2 Emergency Response Arrangements – Emergency Control Centre

15. The dutyholder provided me with a walk-through of the emergency response arrangements at the emergency control centre. The site response to a transport incident follows the same approach as an on site incident with the same initial actions and call out procedure. I consider that the use of a single command and control approach for all incidents is good practice and demonstrates that the dutyholder is treating transport incidents as the same as on site incidents.

2.1.3 Radiation Risk Assessment

16. I reviewed the radiation risk assessment for the Traveller package in advance of the inspection and followed this up with additional discussions during the inspection.

17. The radiation risk assessment is documented across two documents:

- Precursory assessment – [redacted]
- Skeleton Map of the Radiation Risk Assessment for Transport Packages – [redacted]

18. The precursory assessment concentrates on the determination of incident scenarios and whether the package would require an emergency plan under schedule 2 of the transport regulations. When it does not, as in the case of the Traveller package, the skeleton map is used as the baseline radiation risk assessment.

19. I specifically noted that the use of a precursory assessment for each package with a skeleton map which covers multiple packages was confusing and in my opinion led to the gaps that I identified (Section 2.2.1 below). I recommended that the dutyholder produce a single radiation risk assessment using the format of the IRR17 ACOP and following the guidance provided by ONR for each package:

20. Ionising Radiations Regulations 2017 (IRR17), Regulation 8 – Radiation Risk Assessment: Guidance in relation to the civil transport of radioactive material by road and rail

21. The dutyholder agreed to provide me with an updated radiation risk assessment of a single package (likely to be the Traveller) with all details contained in a single document, taking account of the guidance.

22. Despite the points noted above, the dutyholder was able to provide me verbally with answers to all the points I raised, the issue is with the suitability of the recording within the radiation risk assessment.

2.2 Actions Required by the Dutyholder

23. There were aspects of the transport operations inspected that, in my opinion, were not in full compliance with either IRR17 or CDG regulations. During the inspection, I explained these non-compliances and discussed the necessary measures needed to bring the operations into compliance with the law (recorded above in section 2.1). The details of actions identified during the inspection are identified below:

2.2.1 Radiation Risk Assessment – IRR17 - ONR Inspection Rating AMBER

24. The radiation risk assessment is documented across two documents:

- Precursory assessment [redacted]
- Skeleton Map of the Radiation Risk Assessment for Transport Packages – [redacted]

25. On review of these documents I noted the following specific points:

- [redacted]
  - Only addresses incident conditions and is not carried out in conjunction with other aspects of the IRR17 risk assessment requirements.
  - Does not fully address all possible incident modes, but relies on the package withstand and as such bases the dose received by an individual on the normal and normal + 20% dose rates.
  - Aspects such as failure of control measures (maintenance, locking devices, systems of work etc) are not considered.
- [redacted]
  - Follows the IRR17 ACOP paragraph numbers which provides a suitable format for the document.
  - Refers out to other documents as appropriate – but in a number of cases the referred document does not provide the relevant information. E.g. Para 70(a) refers to [redacted] to identify the nature of the sources covered by the risk assessment. This document does not provide this information in suitable detail.
  - In a number of cases it refers out to the precursory assessment [redacted] to provide information, but this only addresses the incident scenarios and does not provide details for normal activity. E.g. Para 70(c) likelihood of contamination being spread.
  - Provides statements of "fact" with no supporting evidence, or reference to general processes without specific document details. E.g. Para 70(d) – personal dosimetry refers to "records held by approved dosimetry service" with no reference.
  - States that procedures provide mitigation without describing the procedure and/or demonstrating how the procedure is mitigation. E.g. Para 70(e) states that "Category 12 'product & service quality' & Category 10 'procurement' apply" without suitable explanation as to how and why.
  - There was no assessment of the dose rates around the packages whilst being transported to determine where areas need to be controlled or supervised during normal conditions (Para 71(j).

26. Some of the points noted above were discussed in depth during the inspection, I have includes a few additional examples at the request of the dutyholder as the time constraints limited the available discussion time. The list above is not a conclusive list of all aspects of the RRA which need to be addressed.

27. I also note that similar comments were made as a result of a previous review of radiation risk assessments (23rd Oct 2020) and provided to the dutyholder in an email (CM9 2020/323813).

28. The dutyholder is to provide me with an updated Radiation Risk Assessment for the Traveller package (or an equivalent) in a single document that meets the expectations of the IRR17 ACOP and ONR guidance.

2.3 Conclusion and Inspection Rating

29. Giving due consideration to the one non-compliances identified in Section 2.2, I have assigned an Amber inspection rating overall. This is because I identified:

- Specific legal requirements not met, but without prejudice to overall nuclear safety or security objectives.

30. This is in accordance with the ONR Inspection Rating Guide (Appendix 9 of www.onr.org.uk/operational/tech_insp_guides/onr-insp-gd-064.pdf).

2.4 Timescales to Address ONR Findings

31. At the end of the inspection, I summarised the inspection findings with Westinghouse Springfields Fuels Ltd. I stated that I require evidence that the non-compliances had been resolved as detailed in Section 2.1 above. I require this evidence or a plan of when it will be provided by 31 March 2022.

32. The dates will be entered into ONR's Issue Management system and used to track completion.

3 ISSUES

3.1 Issues Raised

No	Issue Title	Category	Issue Level	Licensee/Dutyholder Role	Owner (Inspector)	Completion / Review Date
RI-10568	Update of transport radiation risk assessment.	Transport Compliance	3	Westinghouse Springfields Fuels Ltd	[redacted]	31 March 2022

3.2 Issues Closed

No	Issue Title	Category	Issue Level	Licensee/Dutyholder Role	Owner (Inspector)	Completion / Review Date
	No issues required closure.					

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]		25/01/2022
0	[redacted]	[redacted]		26/01/2022

VERSION CONTROL

Revision	Date	Description of Change
0A	25/01/2022	First draft
0	26/01/2022	First 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
Westinghouse, Springfields Fuels Limited	[redacted]	25/01/2022
Westinghouse, Springfields Fuels Limited	[redacted]	25/01/2022
Westinghouse, Springfields Fuels Limited	[redacted]	25/01/2022
Office for Nuclear Regulation	[redacted]	25/01/2022
Office for Nuclear Regulation	[redacted]	25/01/2022
Office for Nuclear Regulation	[redacted]	25/01/2022
Office for Nuclear Regulation	[redacted]	25/01/2022
Office for Nuclear Regulation	[redacted]	25/01/2022
Office for Nuclear Regulation	[redacted]	25/01/2022