

NDA response to DSG member Tor Justad questions

1	What is the latest information about the amounts of spent fuel and waste remaining at Dounreay and which categories do these fall into?	There are 3 groups of exotic fuels currently stored at Dounreay. They are unirradiated plutonium bearing fuels (approx.. 13 tonnes containing plutonium), unirradiated high enriched uranium fuel (approx. 1 tonne) and irradiated fuels (approx. 12 tonnes). Further descriptions of the 3 groups of fuels are at Appendix 1 of the NDA's Preferred Option paper. An overview of the materials held at Dounreay is available at http://www.dounreay.com/UserFiles/File/Transports/DSRL%20PR%20Transport%20of%20Radioactive%20Material%20V3.pdf
2	Under current plans how will each of these categories be moved (rail or sea) and what are the timetables for completion of these movements?	For security reasons we do not disclose the times and method of transport of individual moves, however the Dounreay fuels removal programme began in 2012 and is expected to conclude between 2019 and 2021. If the trial of the marine option is successful we will have two viable long distance options, i.e. rail and sea.
3	Can you clarify the press report in the Press & Journal 20/8/14 regarding the increased amount of radioactive material found in the reactor core at Dounreay and whether this is an increase which will lead to a higher number of movements?	<p>The report you refer to was predicated on an erroneous article which first appeared in the Scotsman. DSRL MD Mark Rouse has since written to the editor of the Scotsman to point out the error.</p> <p>A camera survey of DFR carried out in 2014 provided the first view of the interior of the reactor for nearly 50 years. What the photography revealed was that more of the elements were stuck in the reactor than had previously been suspected. Using state of the art technology DSRL were able to visually examine the reactor's interior. DSRL did not find any additional nuclear material in the reactor vessel.</p>

4	<p>Assuming that the amounts to be taken by sea are not yet confirmed, how will the trial shipment inform the decision, given that we have been informed many times that shipments have been transported safely for many years ?</p>	<p>The transport of radioactive materials is carefully regulated to protect people, property and the environment. The IAEA Regulations for the Safe Transport of Radioactive Material were first published in 1961 and have been revised regularly to keep pace with scientific and technological developments. Today, more than 60 Member States and the UN Model Regulations for the Transport of Dangerous Goods along with modal agencies such the International Maritime Organization (IMO) have adopted safety requirements and standards based on the IAEA Regulations. As a result, the IAEA Regulations apply to the transport of radioactive materials almost anywhere in the world. For more information on WNTI</p> <p>http://www.wnti.co.uk/media/21689/FS1_EN_MAR13_V2.pdf</p> <p>The trial is to assess each element of the nuclear move to ensure that all eventualities have been fully assessed and the standards can be met.</p>
5	<p>Given the concerns about the seaworthiness of some of the vessels used in the past for this transport, how will the NDA be assured that the ships are safe? I am sure you are aware of the fire on a nuclear ship “Atlantic Carrier” in Hamburg in May 2013 – does this accident not disprove the idea that this transport is safe? What are the implications for Scrabster-Barrow shipments? As there is no dedicated Coastguard tug in the Minch (as previously) to what extent will this fact be taken into account in relation to the preparedness of an accident on the Scrabster-Barrow route?</p>	<p>The Oceanic Pintail is an INF3-class vessel – the highest level of the International Maritime Organisation’s INF Code which regulates shipments by sea of packaged irradiated nuclear fuel, plutonium and high level radioactive wastes – with a wide range of safety features, including a double hull around cargo spaces, twin engines and a comprehensive suite of built-in redundancy to all critical operating systems. There is always a back-up system ready to be brought into operation. In addition, the Pintail is equipped with a comprehensive fire safety system which has recently been augmented.</p> <p>This safety-in-depth approach extends to its crew, who are the most experienced nuclear cargo personnel in the world. All of the senior navigating and engineering officers hold certificates of competence for a higher rank than the one they serve.</p>

		<p>The vessel referred to in the question was not a nuclear ship, it was a bulk container carrier called the Atlantic Cartier. It had no specialist classification to carry nuclear cargo, and is not remotely comparable to any ship operated by INS. The INS vessels are purpose built specialist nuclear cargo vessels with a specification that meets the highest nuclear cargo classification of the International Maritime Organisation. See fact sheet on Oceanic Pintail for additional info. http://www.innuserv.com/wp-content/uploads/2012/07/INS_Oceanic_data.pdf</p> <p>For security reasons, the route to be used in any future shipments is not disclosed. However, INS maintains a global round the clock emergency response capability, including access to emergency tugs that can be called upon if required. See factsheet on emergency response (attached).</p>
6	<p>Given the widespread concern about this issue, including representations from Comhairle nan Eilean Siar (Western Isles Islands Council) and KIMO : Local Authorities International Environmental Organisation, what alternatives will be considered if the objections move to legal action and the shipments are stopped?</p>	<p>We fully understand how some parties have concerns about the movement of this and in some cases any nuclear materials. Within the restrictions placed on us, we seek to explain why we believe the methods of transport being considered are safe; fit for purpose and for which there is a long history of successful operations. However, even though we fully respect the concerns some parties have, our obligation is to ensure that any movements comply with existing legislation. It is worth noting that while there are restrictions on what we can publically disclose, our regulators have the right to access and review all information about these moves which they diligently do in their capacity in representing the interests of the public.</p>
7	<p>Sellafield derived caesium 137 and 134 has been reported as saturating the island of North Uist in by a study by Dr.Macleod et al and any potential</p>	<p>The safety of the transport will meet international requirements. Any transports will only take place after the regulator is satisfied that the safety and security arrangements meet the international standards set</p>

	additional radiation in the sea arising from a nuclear ship accident naturally raises additional concerns.	by the IAEA.
8	Is the NDA aware of the report produced by pollution consultant Tim Deere-Jones which has examined the risks, emergency planning procedures and recommendations related to local consultation outlined in this report?	<p>It is unclear which report is referred to here and Tim Deere-Jones has authored several reports, one of which was subsequently withdrawn following challenge on its accuracy from the industry.</p> <p>DSRL as consignor is responsible for emergency planning until it reaches the consignee. DSRL will undertake the relevant emergency planning requirements including integration with national requirements such as RADSAFE.</p>
9	If the NDA is aware of it (Tim Deere-Jones report) what implications does this have for any proposed shipments from Scrabster to Barrow and if not could the report be examined and a report made to the DSG on its implications for any shipments from Scrabster.	<p>Please see answer to question 8. However, it should be noted that a shipping accident does not automatically lead to a release of radiation into the sea. The nature of the vessel and the way it is managed, coupled with the way that the nuclear materials are packaged and placed within the vessel provide numerous layers of protection. (<i>INS factsheets on Oceanic Pintail and nuclear shipment packaging attached</i>).</p>
10	I am sure you are aware of the ONR “Weightman” report on post-Fukushima emergency planning issues which recommended the need for a review of public communication - what recommendations have been made and what improvements can we expect in relation to information about waste / recycled fuel shipments	<p>The NDA has undertaken a programme of engagement with key stakeholders on our preferred option for the Dounreay exotics as part of wider stakeholder engagement on management of Spent Fuels and movement of Nuclear Materials.</p> <p>In accordance with our Strategy, the NDA, with support from its Site Licence Companies and subsidiary companies, will continue to undertake such engagement as appropriate as the preferred option for the Dounreay exotics is implemented. An engagement process was commenced in 2011 with the publication of the Credible Options paper and is ongoing. Communication is a key aspect of the Exotics programme, within the constraints of security. We will continue to engage with stakeholders on this and other issues.</p>

11	<p>In the Highlands local communities wish to be better informed about the risks of rail and sea transport from accident or terrorism and they should be informed of the levels of radiation that comes from transported waste casks – what steps will be taken to inform people along the routes chosen</p>	<p>Any potential impacts on local communities from the movement of nuclear fuels are communicated through well-established engagement channels. Due to security restrictions notification of a movement of nuclear fuels cannot be disclosed, or the route to be taken, but as with previous movements of similar materials in the past the NDA, together with support from its Site Licence Companies and subsidiary companies is undertaking appropriate engagement with key stakeholders as the Preferred Option for the management of the Dounreay exotics is implemented. This type of movement has been taking place safely and securely on a daily basis across the UK for 50 years.</p>
12	<p>What liaison is there between NDA at Dounreay and Highland Council in relation to Emergency Planning and have local communities been informed about likely evacuation or confinement in the event of an accident – this was chaotic after Fukushima as there had been little information provided to local communities. This could equally apply to an accident on site involving the emission of radiation</p>	<p>DSRL, as the consignor and site licence conditions holder, engages with the Highland Council and others with respect to emergency planning. This engagement is maintained throughout the shipment programme through to its completion in 2019.</p>
13	<p>The DSRL presentation DSG(2011) C204 stated now reached the point where informed public engagement should take place.</p>	<p>This has happened through the exotics engagement and has continued over the last 3 years with current work focussing on the transport options.</p>
14	<p>Have the lessons from Exercise Senator been taken into account in relation to specialist assistance for nuclear weapons convoys which would apply equally to rail movements</p>	<p>DSRL will ensure that the transports will comply with all current requirements.</p>

15	The report to DSG from DSRL (DSG (2011) C204 stated “now reached the point where informed public engagement should take place.” – when did this start and what will has been involved? It also stated “ NDA want to engage key stakeholders on credible options and the preferred option” – which stakeholders have been engaged?	See answer 10. The NDA has engaged with site stakeholder groups, including the Dounreay Stakeholder Group, local authorities across Scotland and England, Scottish Government, and a number of groups and individuals who have expressed an interest, including HANT.
16	And the update presentation DSG (2014) C019 at the March DSG meeting stated 90 rail shipments with completion in 2019 – is this still correct?	This was in respect of the DFR Breeder fuel and remains the current project plan.
17	What is the timescale for building the characterisation & packaging facility?	The equipment for the Un-irradiated Fuel Characterisation and Packing facility has been designed and ordered. Some has already been delivered to the site. The facility is expected to be operable in 2015.
18	There is reference to public engagement – what will this involve?	This was the engagement already described that led to the decision to relocate the fuel. DSRL and NDA continue to engage with the public within the bounds of the security requirements.
19	Which Secretary of State is referred to?	The DSRL presentation referred to the UK Government minister in DECC.
20	There is reference to irradiated exotic fuels and rating of road bridges – does this mean some waste / fuel may be transported by road? Or is this a reference to Dounreay to Georgemas Junction?	This was in respect of the routing between Dounreay and Georgemas.
21	Reference to 35 rail shipments starting in 2019/20 – is this still the plan?	Yes, this is the plan for the Irradiated Exotics.

	THE ADDITIONAL QUESTIONS BELOW WERE RECEIVED FROM DSG MEMBER CLLR MAURCIE DAVIDSON – October 2014	
1	Has the Oceanic Pintail ever been on fire?	No
2	How old is the Pintail?	The Oceanic Pintail is 27 years old.
3	What is the speed of the vessel?	The Oceanic Pintail's design speed is 11kts.