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UK STRATEGY FOR THE MANAGEMENT OF SOLID LOW LEVEL WASTE FROM THE NUCLEAR INDUSTRY – CONSULTATION DOCUMENT, JANUARY 2015

DOUNREAY STAKEHOLDER GROUP RESPONSE TO CONSULTATION

The Dounreay Stakeholder Group (DSG) is represented by over 20 organisations and therefore this response is one that is generally agreed by most organisations. However, there are some organisations, who may not agree entirely with this submission and therefore these organisations have been encouraged to provide their own response

There are 3 LLW strategies:

- 1. Nuclear industry, overseen by NDA/SEPA**
- 2. Non-nuclear industry anthropogenic (why can't they say man-made?)**
- 3. Naturally Occurring Radioactive Materials (NORM) like drilling muds**

Question 1: What do you think would be the advantages and disadvantages of integrating the three LLW strategies into a single strategy?

Good idea, but wouldn't it simply be a re-badging exercise, one document with three chapters?
Who would own it, who is responsible and who would regulate?

The three types of LLW come from different industries. These have different operating regimes. The nuclear industry is slow and heavily regulated. The non destructive assay and manufacturing industry is fast and reactionary. The NORM LLW arises from a highly competitive, legalistic oil industry. The management and strategies have to enable these disparate industries to work efficiently so an integrated LLW strategy is not likely to be effective or desirable.

Question 2: What do you think are the advantages and disadvantages of using radiological classification as opposed to disposability assessment as the basis for waste management decisions?

The continental countries do not use the 3 radioactive waste categories (LLW, ILW and HLW) as strictly as the UK. They use the risk/safety analysis of disposal more so that short lived ILW goes

to near surface disposal. There is an advantage of large cost savings if some UK ILW could safely go to near surface disposal.

Potentially it would allow a reduction of costs by requiring less segregation/clean-up but would need to ensure that this did not create greater volumes of waste which is above the LLW criteria which would end up in higher cost storage/disposal facilities. A great deal of thought would need to be given to ensure public perception and, more importantly, trust was not blurred. The industry has spent a fortune and many years in estimating waste arisings to plan for their storage/disposal. Any re-jigging needs to bear in mind the costs of re-evaluation and process changes needed.

The other aspect is though that if a Geological Disposal Facility is constructed the marginal cost of putting such ILW in that facility is much lower than the challenge of putting it in a near surface facility. Scotland could not take advantage of this.

Question 3: Do you think there are barriers to re-use within the nuclear industry? If so, what do you consider these to be and how do you think they could be addressed?

There is scope for re-use, but the costs of decontamination should be weighed against disposal. Items that are easy to clean and have an economic value, such as pipework or RSJs could be considered. However it should be recognised this will require new decontam facilities and inevitably will increase radiological exposure for workers. Soil and rubble reuse is worthwhile so long as it does not compromise the endstate brownfield status of the site.

There is likely to be concern from planners and regulators on developers' assessments of residual life after being in a radioactive environment. Time and cost taken up with assessments, evaluation by regulators, non-destructive testing can out way any costs of new equipment and allows more accurate programming.

Question 4: Do you think there are barriers to recycling waste in the nuclear industry? If so, what do you think could be done to facilitate improvement in this area?

Similar comments could be made about recycling; again more processing costs, probably in dedicated facilities.

The public seem to be averse to the processes involved with recycling, particularly incineration, of non-radioactive materials so there are likely to be drawn out environmental disputes that developers cannot afford.

Radiological assessment and assurance would be paramount in persuading developers and the public to use and live next to recycled nuclear materials.

Question 5: Do you think opportunities should be explored to manage wastes at the boundary of LLW/ILW more flexibly according to risk assessment?

In short, yes (see comments at Q2). However, if we blur the distinction between waste types, there is a public perception issue, ie are we doing it to reduce cost at the expense of the environment? There may also be radiological issues for workers if ILW was handled at the same facility.

Question 6: Do you consider that the current extent of stakeholder engagement for the LLW strategy is proportionate and appropriate? If not, what would you like to see with regard to stakeholder engagement?

Stakeholders should be given more Cost/Benefit analyses on the proposals and questions being raised.

Question 7: Do you have any other comments on this revised strategy?

It has taken 16 years so far for the Dounreay New Low Level Waste Disposal Facilities project to move from the initial BPEO study to the current position of awaiting final authorisation from SEPA. This has been progressed at the fastest speed the designers, regulators and stakeholders have allowed over the years. This project is for facilities at a nuclear site with a generally supportive community (though it should be noted that this is not a shared view of the immediate neighbours). This should give a warning signal of the time involved for any other new LLW disposal facilities that may be envisaged.