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## Optioneering and optimisation of solutions for On-Site Disposition to ensure safety and enable sustainability

In 2018, the Guidance on Requirements for Release [from the Radioactive Substances Regulation] was published by the combined Environment Agencies of the United Kingdom. This is also known as the GRR. The GRR gives the provision for an operator to optimise final solutions to allow release from the RSR and includes options such as those shown in Fig 5 (taken from the GRR).

To aid the optimisation process, a model has been developed which considers several factors, aligned with the NDA Value Framework, and which considers elements of sustainability. These can be broken into the main pillars of sustainability.

### **Social**

- o Risk to public (from transport)
- o Risk to workers (on-site and transport)
- o HGV movements and disturbances to local communities

### **Economic**

- o Cost (using the inbuilt cost model)

### **Environmental**

- o CO2 emissions (including from concrete use, HGVs etc)
- o Material use / re-use (volume)
- o Land / area for reuse

The proposed oral presentation would cover how this model specifically 'ensured safety' by using inputs from control measures (e.g., dose limits, transport controls), whilst optimising solutions to be as sustainable as possible from a variety of perspectives, including the consideration of views from local stakeholders.

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