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## **Muon Tomography Applications for Nuclear Waste Management and Decommissioning in the UK**

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In the UK nuclear industry, muon imaging is gaining traction as a credible option in the toolkit of techniques for monitoring and inspection of waste packages arising from decommissioning activities across the UK nuclear estate. Since 2009, the National Nuclear Laboratory has collaborated with the University of Glasgow and Lynkeos Technology Ltd. to develop muon imaging techniques for such applications. In this paper we review our experiences in imaging typical waste-forms such as vitrified products and corroded sludge. The requirements and expectations of stakeholders and plant operators with regard to waste monitoring are examined, and the constraints and challenges of deploying and operating muon detection instruments on nuclear licensed sites are discussed.

**Primary authors:** Mr CLARKSON, Anthony (University of Glasgow / Lynkeos Technology Ltd.); Dr SHEARER, Craig (National Nuclear Laboratory); Dr MAHON, David (University of Glasgow / Lynkeos Technology Ltd.); Dr RYAN, Matthew (National Nuclear Laboratory); Prof. IRELAND, David (University of Glasgow / Lynkeos Technology Ltd.); Dr YANG, Guangliang (University of Glasgow / Lynkeos Technology Ltd.); Prof. KAISER, Ralf (University of Glasgow / Lynkeos Technology Ltd.); Dr AL JEBALI, Ramsey (Lynkeos Technology Ltd.); Dr GARDNER, Simon (University of Glasgow / Lynkeos Technology Ltd.)

**Presenter:** Dr RYAN, Matthew (National Nuclear Laboratory)

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