# Legacy Ponds and Silos: Accelerating risk reduction

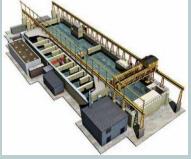
Alan Parry , Head of Strategy & Technical, Decommissioning



## Legacy Ponds & Silos

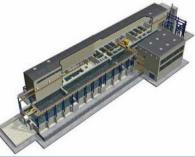
#### Pile Fuel Storage Pond





 Constructed 1948-1952 to store Windscale fuel for reprocessing. Waste consists of sludge, fuel, intermediate and low level level waste. First Generation Magnox Storage Pond



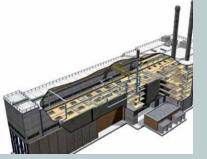


 Constructed in 1950s and 1960s to store Magnox fuel for reprocessing Waste consists of sludge, fuel, intermediate and low level level waste



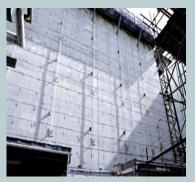
**Magnox Swarf** 

Storage Silos



 Constructed 1960s-1980s to hold irradiated fuel canning waste. Received waste until 2000

#### Pile Fuel Cladding Silo

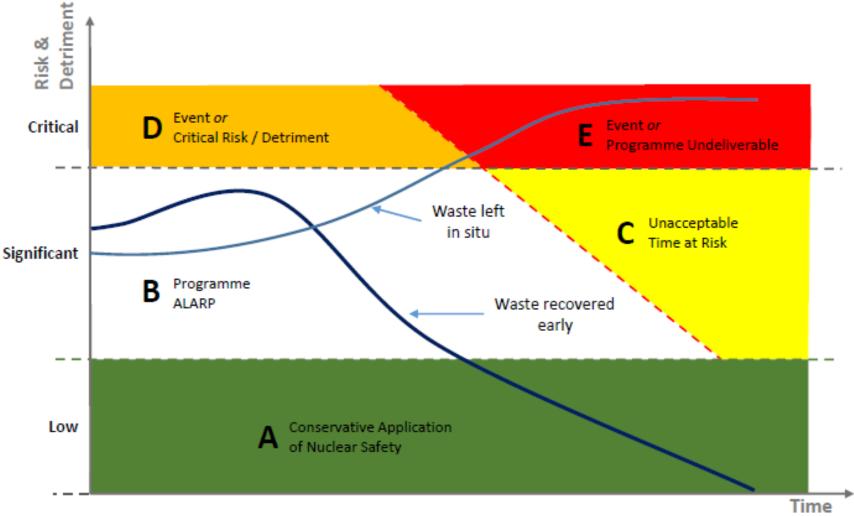




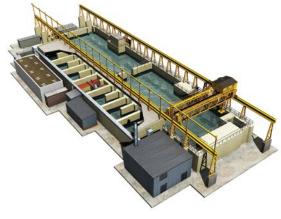
 Commissioned in 1952, 1<sup>st</sup> storage facility for intermediate level waste constructed at Sellafield. The silo was filled by 1964



## **A Risk Framework**







## Pile Fuel Storage Pond Acceleration

#### **Recent milestone successes**



**Feb 2016:** All bulk fuel removed. 70% reduction in radioactive content



**Dec 2016:** Start of sludge exports. Bulk sludge to be removed by 2022

#### Pond dewatering



## **First Generation** Magnox Storage Pond

#### Acceleration **Opportunities**

#### **Recent success**



May 2017: Opportunity to utilise Fuel Handling Plant for Early Risk Reduction



**2017:** Opportunity

storage/disposal

to utilise

April 2016: Start of fuel and sludge exports. Bulk to be removed by 2022 Self-Shielded Boxes for

2016 Moved into retrieval operations

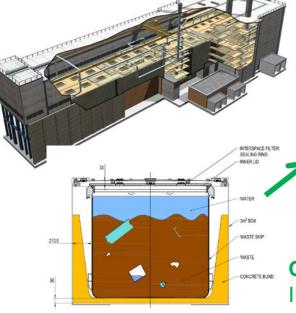


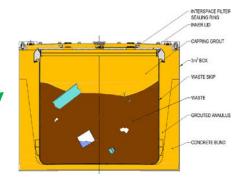
?? Benefits of acceleration on schedule TBC

2048

Existing schedule for completion of pond decommissioning

## Magnox Swarf Storage Silo Acceleration





October 2015: Alternative ILW Approach with simpler, entombed waste product

#### **Recent success**



**Nov 2016:** SEP2 waste retrievals machine assembled

#### Start of retrievals

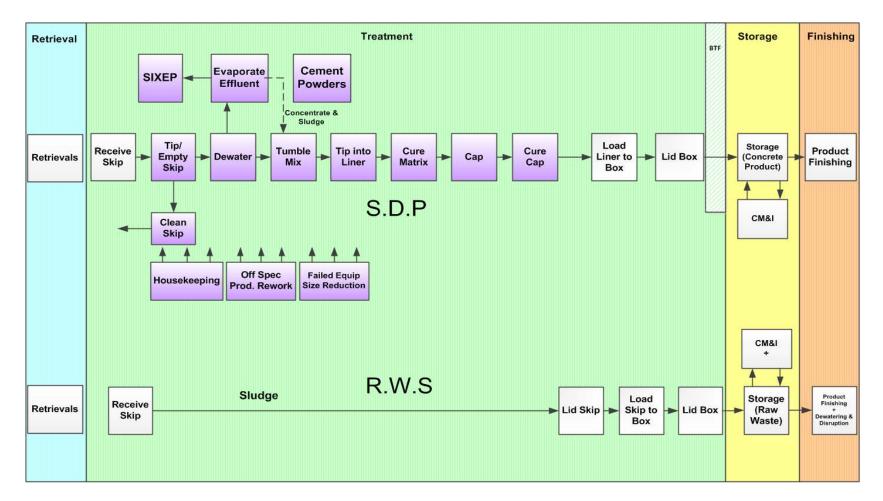
**2019** Start of retrievals to EPS

**2021** Start of retrievals to BEP 2026 Original start of sustained retrievals pre-alternative approach



## **Magnox Swarf Storage Silo**

From 22 steps to 3: the alternative ILW packaging and storage process





## Pile Fuel Cladding Silo Acceleration

#### **Recent milestones successes**



June 2016: UK Govt approval of 'lead and learn' early retrievals approach



**Nov 2016:** All six retrieval access doors installed on silo

#### Start of retrievals

**2019** Acceleration opportunity for retrievals

**2020** Current forecast start of retrievals **2022** Original forecasted start of retrievals in PP14



# END

