

**NDA**

Nuclear  
Decommissioning  
Authority



**LLW Repository Ltd**

**NDA National LLW Strategy Group  
May 2009**

# National LLW Management Plan

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NDA National LLW Strategy Group - May 2009

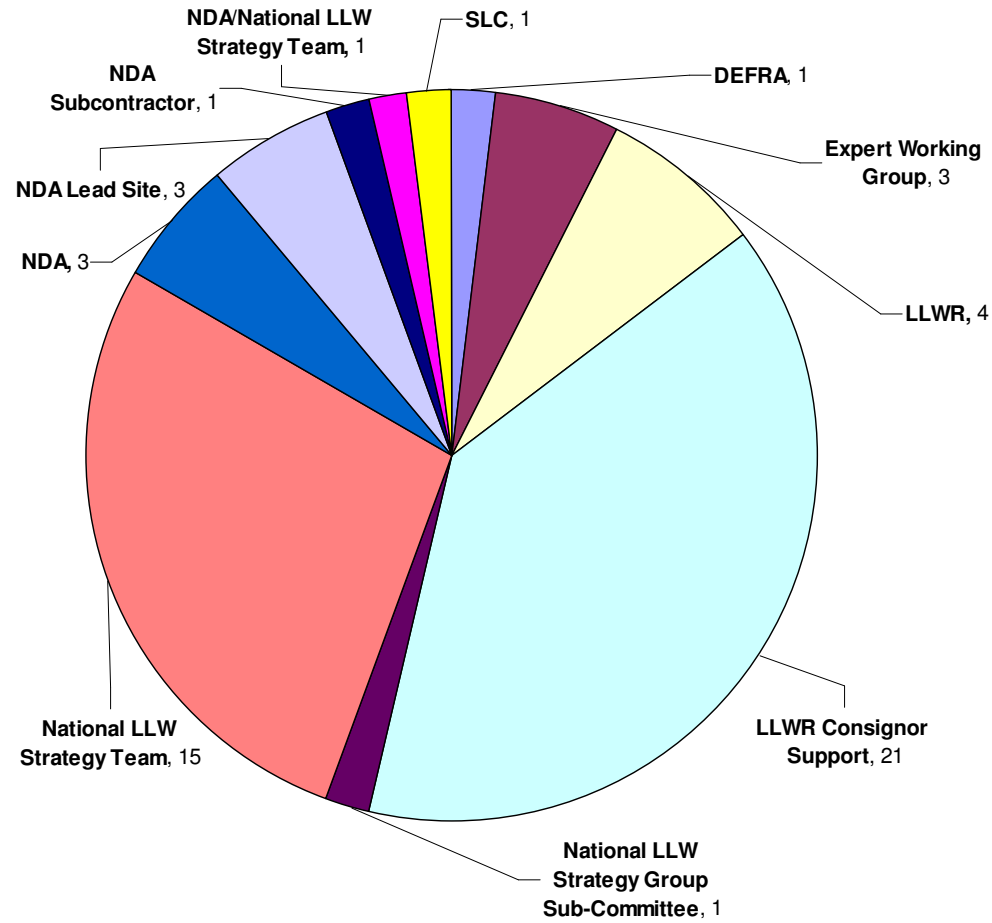
# Introduction

- 54 potential strategic initiatives were identified during the Strategic Review to provide significant synergies and opportunities for programme integration
- To maximise benefits, the strategies must be collectively and consistently implemented
- Step-change improvement in LLW management practices
  - Reduce the LLW baseline costs
  - Extend the life of LLWR
  - Achieve significant environmental and sustainability benefits

## National LLW Management Plan Implementation

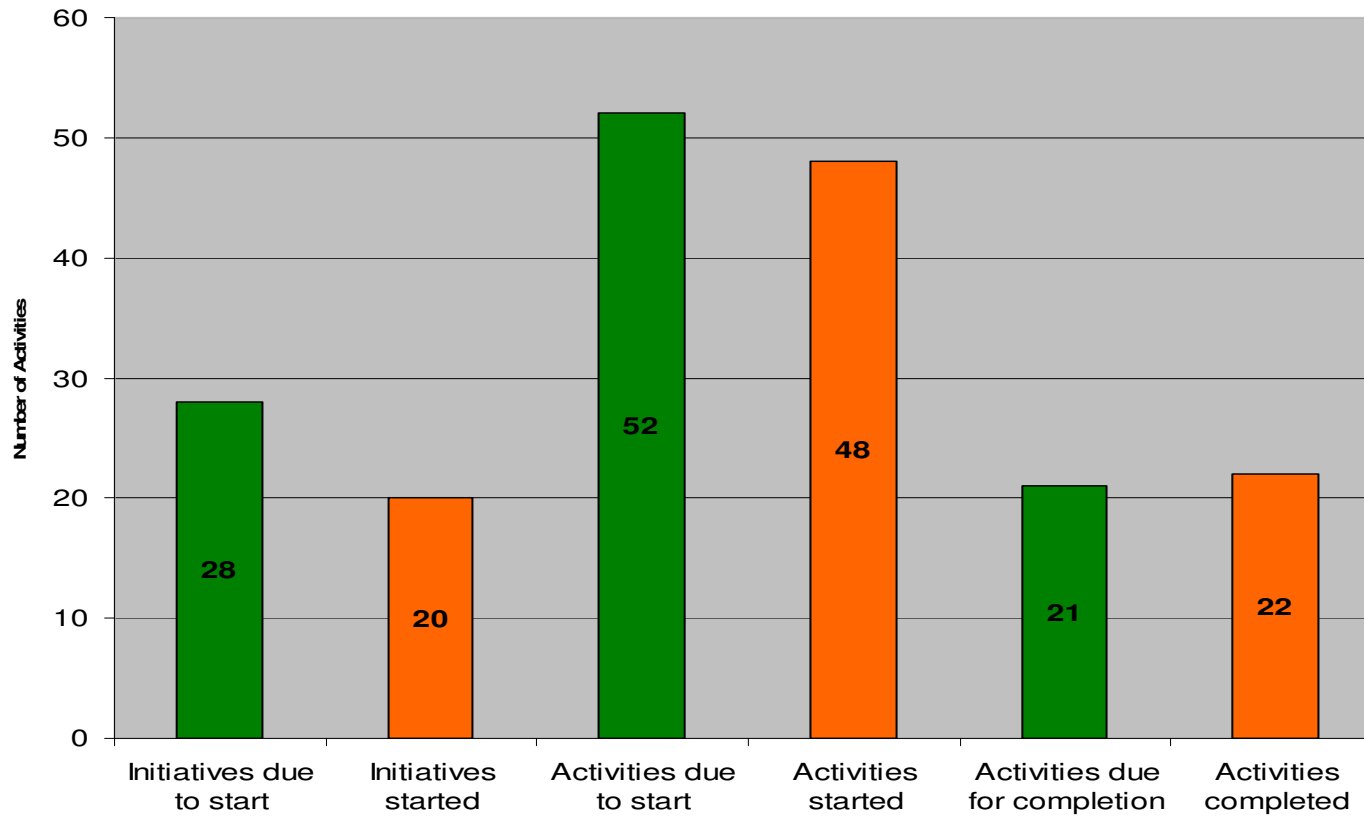
- Plan consulted and revised to incorporate all comments
- Implementation in progress, with project managers and lead sites assigned for numerous initiatives
- The Strategy Planning Manager has *over-arching* Project Management responsibility for monitoring scope and schedule performance
- The plan will be updated on an annual basis for informing the SLC lifetime planning process and other non-NDA waste programmes

# Breakdown of Initiatives – Implementation Methods



# Management Plan Activities - Progress

Management Plan Activities (End date 30/04/09)



# Waste Avoidance/Minimisation- Initiative Status

| Initiative   | ID   | Implementation Method       |  | Status                       |
|--|------|-----------------------------|--|------------------------------|
| Standardise waste avoidance and minimisation programmes                          | WAM1 | National LLW Strategy Team  |  | On schedule                  |
| Improve consistency of application of Nuclear Industry Code of Practice (NICO P) | WAM2 | <b>Expert Working Group</b> |  | <b>Team not yet assigned</b> |
| Incentivise waste minimisation   | WAM3 | National LLW Strategy Team  |  | Scheduled to start 29/06/09  |
| Identify and share waste avoidance and minimisation good practices               | WAM4 | National LLW Strategy Team  |  | On schedule                  |

# Waste Characterisation- Initiative Status

| Initiative   | ID  | Implementation Method      | Status                                      |
|--|-----|----------------------------|---|
| Standardise characterisation programmes                                  | WC1 | LLWR Consignor Support     | Re-assigned and in progress                 |
| Consolidate R&D on Characterisation                                      | WC2 | NDA Site Lead              | Lead site not yet assigned                  |
| Identify and share characterisation good practices                       | WC3 | National LLW Strategy Team | Scheduled to start 01/07/09                 |
| Centralise provision of characterisation equipment and/or SQEP Resources | WC4 | LLWR Consignor Support     | Characterisation contract strategy underway |
| Re-estimate wastestream characterisation                                 | WC5 | NDA Site Lead              | Lead site not yet assigned                  |

# Waste Segregation/Categorisation- Initiative Status

| Initiative   | ID  | Implementation Method  | Status                      |
|--|-----|------------------------|-----------------------------|
| Develop guidance on segregation good practices     | SC1 | LLWR Consignor Support | On schedule                 |
| Incentivise segregation of wastes                  | SC2 | LLWR Consignor Support | On schedule                 |
| Standardise design of waste segregation facilities | SC3 | NDA Site Lead          | Scheduled to start 01/02/10 |

# Waste Treatment- Initiative Status

| Initiative  | ID  | Implementation Method      | Status                       |
|---|-----|----------------------------|------------------------------|
| Incentivise treatment of wastes   | WT1 | National LLW Strategy Team | On schedule                  |
| Develop metal treatment routes  | WT2 | LLWR Consignor Support     | On schedule                  |
| Develop incineration routes   | WT3 | LLWR Consignor Support     | Delayed by contract strategy |
| Enlist supply chain to provide new waste treatment facilities, capacities, and capabilities | WT4 | LLWR Consignor Support     | On schedule                  |

## Waste Treatment- Initiative Status continued

| Initiative   | ID  | Implementation Method      | Status                               |
|--|-----|----------------------------|--------------------------------------|
| Improve efficiency and utilisation of existing incinerators at nuclear sites | WT5 | National LLW Strategy Team | Scheduled to start 01/04/10          |
| Improve efficiency of existing NDA metal decontamination facilities          | WT6 | National LLW Strategy Team | On schedule                          |
| Consolidate R&D on orphan and hazardous wastestreams                         | WT7 | <b>NDA Site Lead</b>       | <b>Team assigned-<br/>Sellafield</b> |

## Recycle/Reuse and Exempt Waste- Initiative Status

| Initiative   | ID  | Implementation Method              | Status  |
|--|-----|------------------------------------|---|
| Identify and share re-use and recycling good practices                 | RR1 | National LLW Strategy Team         | On schedule                                     |
| Develop mechanism for co-ordination of supply and demand for materials | RR2 | NDA Subcontractor                  | Scheduled to start 08/02/10                     |
| Re-use/recycle waste in new construction projects in nuclear industry  | RR3 | <b>Strategy Group Subcommittee</b> | <b>Unassigned - Scheduled to start 08/02/10</b> |
| Re-use/recycle in new construction projects outside nuclear industry   | RR4 | <b>National LLW Strategy Team</b>  | <b>Resource deferred due to funding</b>         |

## Waste Disposal- Initiative Status

| Initiative  | ID  | Implementation Method      | Status                           |
|---|-----|----------------------------|----------------------------------|
| Develop alternative routes for exempt waste disposal                        | WD1 | National LLW Strategy Team | Resource deferred due to funding |
| Develop alternative routes for VLLW disposal                                | WD2 | LLWR Consignor Support     | On schedule                      |
| Develop on-site/near-site disposal of VLLW on existing NDA sites            | WD3 | National LLW Strategy Team | Re-assigned and in progress      |
| Develop on-site/near-site disposal of LLW on existing NDA sites             | WD4 | National LLW Strategy Team | Scheduled to start 15/11/09      |
| Disposal of some LLW to Deep Geologic Repository (e.g. long-lived isotopes) | WD5 | National LLW Strategy Team | Scheduled to start 01/06/10      |





## Waste Disposal- Initiative Status continued

| Initiative   | ID   | Implementation Method      | Status                      |
|--|------|----------------------------|-----------------------------|
| Disposal of short-lived ILW in near-surface facilities | WD6  | National LLW Strategy Team | Scheduled to start 01/06/10 |
| Consider alternative vault designs                     | WD7  | LLWR Site Project Delivery | Scheduled to start 01/01/10 |
| Optimise closure of LLWR                               | WD8  | LLWR ESC Project Team      | On schedule                 |
| Disposal of NORM to alternative facilities             | WD9  | DEFRA                      | On schedule                 |
| Develop decay storage of short-lived LLW               | WD10 | National LLW Strategy Team | Scheduled to start 01/06/10 |
| In-situ management of contaminated land                | WD11 | NDA                        | On schedule                 |

## Waste Packaging- Initiative Status

| Initiative   | ID  | Implementation Method  |             | Status                          |
|--|-----|------------------------|-------------|---------------------------------|
| Develop methods and tools for improving waste packaging efficiency | WP1 | LLWR Consignor Support | ●<br>●<br>● | Scheduled to start 01/06/10     |
| Use of reusable containers for transport of LLW                    | WP2 | LLWR Consignor Support | ●<br>●<br>● | On schedule                     |
| Introduce inner-disposal liners for non-compactable wastes         | WP3 | LLWR Consignor Support | ●<br>●<br>● | Awaiting ESC review in June     |
| Introduce puck overpacks for compactable wastes                    | WP4 | LLWR Consignor Support | ●<br>●<br>● | Awaiting ESC review in June     |
| Introduce small modular containers for segregated wastes           | WP5 | LLWR Consignor Support | ●<br>●<br>● | CCR prepared to revise approach |
| Introduce reinforced bags for VLLW                                 | WP6 | LLWR Consignor Support | ●<br>●<br>● | Scheduled to start 03/08/09     |

# Waste Transportation- Initiative Status

| Initiative                                  | ID    | Implementation Method  | Status   |
|---|-------|------------------------|--|
| Use of transport hubs                       | TRAN1 | LLWR Consignor Support |  Delayed start to re-assess scope |
| Increase use of rail transport              | TRAN2 | LLWR Consignor Support |  Delayed start to re-assess scope |
| Integration of LLW and spent fuel shipments | TRAN3 | LLWR Consignor Support |  Delayed start to re-assess scope |
| Transport of large components whole         | TRAN4 | LLWR Consignor Support |  Delayed start to re-assess scope |

# Waste Tracking/Inventory Management- Initiative Status

| Initiative                                 | ID   | Implementation Method  | Status                             |
|--|------|------------------------|------------------------------------|
| Simplify waste consignment processes       | TIM1 | LLWR Consignor Support | On hold due to funding reduction   |
| Improve waste quality assurance processes  | TIM2 | LLWR Consignor Support | Scheduled to start 01/02/11        |
| Consolidation and archiving of LLW records | TIM3 | NDA                    | Scheduled to start 01/07/11        |
| Improve waste forecasting                  | TIM4 | LLWR Consignor Support | CCR in progress to authorise scope |

## Other- Initiative Status

| Initiative  | ID     | Implementation Method          |       | Status                              |
|---|--------|--------------------------------|-------|-------------------------------------|
| Development of UK LLW Strategy  | OTHER1 | NDA/National LLW Strategy Team | ●●●●● | On schedule                         |
| Preparation of National strategic option assessments                    | OTHER2 | National LLW Strategy Team     | ●●●●● | On schedule                         |
| Enhance communications within LLW management community                  | OTHER3 | National LLW Strategy Team     | ●●●●● | On schedule                         |
| Establish principles for Decontamination and Decommissioning            | OTHER4 | <b>Expert Working Group</b>    | ●●●●● | <b>Team assigned-Magnox</b>         |
| Develop strategy to optimise use of current/future NDA assets           | OTHER5 | NDA                            | ●●●●● | Scheduled date delayed              |
| Introduce risk-based classification of radioactive substances and waste | OTHER6 | LLWR ESC Project Team          | ●●●●● | Required regulatory changes delayed |

# Unassigned or Deferred Management Plan Initiatives

| ID   | Initiative   |
|------|--|
| WAM2 | Improve consistency of application of NICO P                               |
| WC2  | Consolidate R&D on characterisation  |
| WC5  | Re-estimate wastestream characterisation                                   |
| RR3  | Re-use/recycle waste in new construction projects in nuclear industry      |
| RR4  | Re-use/recycle waste in new construction projects outside nuclear industry |
| WD1  | Develop alternative routes for exempt waste disposal                       |

## Volunteers?