REGULATORY OBSERVATION Resolution Plan	
RO Unique No.:	RO-BWRX300-002
RO- Title:	Segregation of Waste
Technical Area(s)	Environmental
Revision:	0
Overall RO Closure Date (Planned):	12 August 2025
Linked RQ(s)	RQ-01810
Linked RO(s)	N/A
Related Technical Area(s)	Radioactive Waste Management Arrangements, Best Available Techniques (BAT)
Other Related Documentation	N/A

Scope of Work

Background

The GE-Hitachi Nuclear Energy, Americas, LLC (GEH) BWRX-300 Standard Design represents a significant design effort to reduce scale and complexity relative to predecessor Boiling Water Reactor (BWR) designs, supporting commercial viability and minimisation of operational, maintenance, and decommissioning wastes. To this effect, the Solid Waste Management System (SWM) utilises a single spent resin tank for management of spent resin from several deep bed demineraliser systems. Additionally, drained process water from various systems and plant areas, collected by the Equipment and Floor Drain System (EFS), is routed to a common collection tank for combined treatment by the Liquid Waste Management System (LWM).

The regulators raised Regulatory Observation (RO)-BWRX300-002 on 20 June 2025 to ensure that the Requesting Party (RP) provides a robust demonstration that management of spent resin in the SWM, and the combined treatment of drained process water in the LWM, align with relevant regulatory guidance from the Environment Agency (EA) and the Office for Nuclear Regulation (ONR).

The EA's radioactive substances management generic developed principle (RSMDP)8 – segregation of wastes states:

"The best available techniques should be used to prevent the mixing of radioactive substances with other materials, including other radioactive substances, where such mixing might compromise subsequent effective management or increase environmental impacts or risks" (Reference 1).

The ONR's Safety Assessment Principles (SAPs) state that radioactive waste should be *"…minimised in terms of quantity and activity", "…segregated to facilitate its subsequent safe and effective management"*, and that any decisions to mix waste streams must be *"…properly justified and provide a net benefit in favour of safety or environmental factors including the later safe management of the waste through to disposal"* (Reference 2).

RO-BWRX300-002 was raised on the basis of Regulatory Query (RQ)-01810, to which the RP responded on 16 April 2025 (M250072, "Submission of BWRX-300 UK GDA Regulatory Query (RQ)-01810 Full Response," (Reference 3)). The RP has updated the Generic Design Assessment (GDA) submissions for Revision (Rev) B as a result of regulatory engagement during GDA Step 2, including incorporation of information provided in the response to RQ-01810.

This RO Resolution Plan describes the additional future work required to address any residual gaps relating to RQ-01810, as raised in RO-BWRX300-002.

Scope of Work

This resolution plan describes:

- Work undertaken by the RP within GDA Step 2 to address RO Action (ROA)1 and ROA2, with clarifications provided in the Rev B submissions.
- The future work required to address ROA3 to ROA9, the output of which will be captured in a future iteration of the BWRX-300 environment and safety cases. These activities are anticipated to be undertaken by a future developer/operator as part of an integrated delivery programme post-GDA Step 2 but prior to site licensing/environmental permitting for a BWRX-300 installation in the United Kingdom (UK).

It should be noted that whilst the scope of the GDA is limited to a single BWRX-300 unit, a number of strategic site-wide considerations would need to be addressed for site-specific development (e.g., the number of BWRX-300 units to be deployed on a particular site and the nature and configuration of any shared facilities) in conjunction with undertaking the activities in this resolution plan. Additionally, whilst GEH (as the RP at GDA) is the designer/vendor of the BWRX-300 Standard Design (i.e., the generic power block design), future design development activities for a BWRX-300 installation in the UK would be the responsibility of a future developer/operator. As a result of the uncertainty relating to the approach to project delivery to be taken by a future developer/operator, it is not deemed appropriate to propose a detailed timeline or schedule duration for resolution of RO-BWRX300-002 at this stage. However, a logic linked- list of activities is presented for a future project stage, and an indicative milestone programme is provided in Figure 1 to demonstrate the interfaces between each of the proposed actions.

GEH acknowledges that application of BAT and reduction of risks to As Low As Reasonably Practicable (ALARP) must be demonstrated prior to the site licencing and environmental permitting application process. GEH has presented robust methodologies for demonstration of:

- BAT, in NEDC-34223P, “BWRX-300 UK GDA Chapter E6 – Demonstration of Best Available Techniques Approach,” Rev B (Reference 4), Section 6.2. A process for addressing gaps and uncertainties in the demonstration of BAT (the ‘decision tool’) is described as part of the BAT methodology in Preliminary Environmental Report (PER) Chapter E6, Rev B, Section 6.2.11 and Figure 6-4, and procedures relating to management of changes to the BWRX-300 Standard Design are described in Section 6.2.15.
- ALARP, in NEDC-34199P, “BWRX-300 UK GDA Chapter 27 – ALARP Evaluation,” Rev B (Reference 5), Section 27.2.

Deliverable Description

Proposed activities to address the actions raised in RO-BWRX300-002 are described below. Cross-references to interfacing Forward Action Plan (FAP) items that have been identified in the Rev B PER and Preliminary Safety Report (PSR) submissions are provided where relevant. It will be the responsibility of a future developer/operator to review these actions and determine their specific activities as part of the wider programme of work. It is anticipated that actions ROA3-9 identified in the RO Resolution Plan would be addressed prior to site licensing/environmental permitting, supported by GEH subject to appropriate contractual

arrangements. A start date for the work has not been identified, but GEH acknowledges the benefits of executing the actions in the Resolution Plan promptly.

RO-BWRX300-002 A1 – Define the assumed waste classification of the ICC bead resins generated from the BWRX-300 design during normal operations

In response to this Action, the RP should:

- **Identify the assumed waste classification of the bead resins generated from the ICC during normal operations**
- **Clearly state any uncertainties or assumptions in defining this waste classification and further work required to address them**
- **Provide an indication of whether the waste classification is likely to change following completion of this work.**

Proposed activities to address the RO Action

The RP has updated PER Chapter E6, Rev B (Reference 4) and other relevant GDA submissions, where appropriate, within GDA Step 2. PER Chapter E6, Arguments 1.1.9 and 1.5.6 (Subsections 6.3.2.9 and 6.3.6.6) consolidate the information requested in ROA1, summarised as follows:

- Spent resin from the Isolation Condenser Pools Cooling and Cleanup System (ICC) demineraliser is assumed to be free of radioactivity under normal operations, however there is a risk of contamination due to its generation within what is anticipated to be a radiologically designated area of the Reactor Building (RB). The ICC resin is currently assumed to align to the UK radioactive waste category of Lower Activity Waste (LAW), recognising that opportunities may exist in the future to deploy techniques to demonstrate the waste falls out of scope of Schedule 23 of "The Environmental Permitting (England and Wales) Regulations 2016" (as amended) (Reference 6).
- The current assumed waste classification of the ICC resin is based on assumptions relating to the following uncertainties:
    - Radiological zoning of the RB
    - Risk of radiological cross-contamination of the Isolation Condenser System pools
    - End User Source Term (EUST) for ICC resin.

Following completion of work required to address these uncertainties, it is anticipated that spent ICC resin will remain in the LAW category due to the relatively low likelihood of radiological cross-contamination.

A future programme of work to define the waste classification of wet solid wastes arising from the operation of the BWRX-300, including spent ICC resin, is described in the response to ROA3.

RO-BWRX300-002 A2 – Clarify the design intent of the spent bead resin tank within the PER and PSR submissions and ensure consistency in how this is presented within the BAT CAE model.

Proposed activities to address the RO Action

The RP has updated PER Chapter E6, Rev B (Reference 4) and other relevant GDA submissions, where appropriate, within GDA Step 2. Argument 1.5.6 (Subsection 6.3.6.6) of PER Chapter E6, and Subsection 11.3.6 of NEDC-34174P, "BWRX-300 UK GDA Chapter 11 – Management of Radioactive Waste," Rev B (Reference 7) clarify the design intent of the SWM in the BWRX-300 Standard Design with respect to management of wet solid radioactive wastes. This may be summarised as follows:

- The SWM includes a single spent resin tank, and two sludge tanks, intended to accumulate a year's arisings of spent resin and filter backwash sludge from multiple systems, taking benefit of radioactive decay from residence time in the respective tanks.
- The tank contents are then transferred to high integrity containers, for dewatering and off-site disposal.

A future programme of work towards determination of the optimal solution for management of BWRX-300 wet solid radioactive wastes in the context of the UK regulatory framework is described in ROA4.

RO-BWRX300-002 A3 – Define the waste classification of all spent bead resins generated from the BWRX-300 design, following refinement of the EUST (Forward Action PER5-113).

In response to this Action, the RP should:

- **Identify the waste classification of the bead resins generated from the ICC, LWMS, CFD and FPC during normal operations**
- **Clearly state any uncertainties or assumptions in defining this waste classification and further work required to address them**
- **Provide an indication of whether the waste classification is likely to change following completion of this work.**

Proposed activities to address the RO Action

The source term data available at GDA Step 2 for BWRX-300 wet solid radioactive wastes (spent resins and filter backwash sludges) are based on a Design Basis Source Term (DBST). The DBST was developed for the purpose of performing operator dose calculations and informing the shielding design of the plant, and provides intentionally highly conservative values for the radioactivity of these wastes. Quantification of wet solid radioactive waste generation under normal operating conditions is therefore required for future design development phases.

In response to ROA3, a future developer/operator shall complete the following actions prior to site licensing/environmental permitting, supported by GEH as appropriate:

- Derive 'Realistic Model' (RM) EUSTs for BWRX-300 wet solid radioactive wastes (spent resins and filter backwash sludges) for the ICC, Condensate Filters and

Demineralisers System (CFD), Fuel Pool Cooling and Cleanup System (FPC), and LWM, based on established methodologies (**FAP.PSR23-133**, **FAP.PER5-113**).

- Determine the radioactive waste classification for ICC, CFD, FPC, and LWM wet solid radioactive wastes for normal operations.
- Review the EUST data for uncertainties and assumptions that may impact the waste classifications of BWRX-300 wet solid radioactive wastes. Without prejudice to a future programme of work, these shall include (but are not limited to):
    - The impact of BWRX-300 design features (e.g., use of GNF2 fuel, material selection, water chemistry regime, low cobalt inventory)
    - Anticipated Operational Occurrences (AOOs) (**FAP.PER5-110**)
    - Fuel pin cladding failure events
    - Risk of potential radiological cross-contamination of the ICS pools
    - Radiological zoning of the power block (**FAP.PSR12-422**).
- Perform sensitivity analysis to determine the extent to which the waste classification may be expected to change as a result of the uncertainties and assumptions identified during the review above.
- Use 'actual' Operational Experience (OPEX) from operational BWRX-300 reactors to further refine EUST and radioactive waste classifications, if available on project timescales (**FAP.PER5-114**).

RO-BWRX300-002 A4 – Evaluate the options for management of spent bead resins with different waste categories within the BWRX-300 design, with supporting narrative.

In response to this Action, the RP should:

- **Identify a comprehensive set of options for the management of spent bead resins with different waste categories.**
- **Evaluate these options using a systematic decision-making process and involving suitable qualified and experienced persons.**
- **Clearly state any uncertainties or assumptions used during the options evaluation process and further work required to address them.**

Proposed activities to address the RO Action

The design intent of the SWM in the BWRX-300 Standard Design is described in the response to ROA2. The capability for management, processing, and storage of wet solid radioactive wastes in the BWRX-300 design will need to be reviewed against UK regulatory expectations for radioactive waste management for future design development phases.

In response to ROA4, a future developer/operator shall complete the following actions prior to site licensing/environmental permitting, supported by GEH as appropriate:

- Predecessor action: wet solid radioactive waste classifications (ROA3)
- Identify options for:
    - The configuration of systems and components within the power block (i.e., elements that are part of the BWRX-300 Standard Design) that provide the capability for receipt and segregation of wet solid radioactive wastes
    - Operational philosophies for management of wet solid radioactive wastes within the power block (e.g., management of wastes on an individual batch basis and collation for decay storage)

  - Downstream processing capability design (i.e., elements that are not part of the BWRX-300 Standard Design and would be site-specific for a UK installation)
  - The means to, and frequency of, transfer of wet solid radioactive wastes from the power block to the downstream processing capability via an interfacing system.
- Identify a preferred option from those identified in the previous step using a systematic decision making/options assessment process that shall be undertaken and recorded by Suitably Qualified and Experience Personnel (SQEP). This shall take consideration of:
  - Establishing the extent to which each of the proposed options supports or undermines (1) the claims and associated arguments presented in the CAE model developed to demonstrate that BAT has been applied for the BWRX-300 and (2) the ALARP considerations presented in the PSR
  - In the event that an option is considered to undermine (1) claims and arguments related to waste prevention and the minimisation of gaseous and aqueous radioactive wastes to the environment, or (2) ALARP considerations in the PSR; an assessment will be undertaken to determine whether the disadvantages of employing such an option (in terms of time, trouble and cost) is proportionate, disproportionate or grossly disproportionate to the expected benefits. An option for which the disadvantages are considered grossly disproportionate to any benefits gained shall be excluded from further assessment.
- Uncertainties and assumptions used during the options assessment will be recorded. An analysis will be performed to determine the extent to which the outcome of the options assessment is sensitive to such uncertainties and assumptions. A programme of work will be developed to address any uncertainties and assumptions to which the options assessment is particularly sensitive. The programme of work will be concluded prior to establishing the preferred option.

<u>RO-BWRX300-002 A5</u> – Demonstrate that the selected option is BAT and ALARP in preventing the unnecessary mixing of spent bead resins with different waste categories, or that it is necessary to facilitate subsequent waste management

In response to this Action, the RP should:

- **Identify the preferred option for the management of spent bead resin with different waste categories, following completion of Action RO-BWRX300-002 A4.**
- **Provide a justification that the selected option is BAT and ALARP.**
- **Provide a justification that the selected option does not introduce the risk of unnecessary cross-contamination or unnecessary constraints on a future operator**

<u>Proposed activities to address the RO Action</u>

In response to ROA5, a future developer/operator shall complete the following actions prior to site licensing/environmental permitting, supported by GEH as appropriate:

- Evidence gathered during the delivery of ROA4 related to the selection of a preferred option will be synthesised and incorporated into the CAE model developed to demonstrate the application of BAT for the BWRX-300 (**FAP.PER6-314**) and into the ALARP arguments for the safety case. Any actions arising from the application of the decision tool will be addressed by applying the relevant process/procedure within the future developer/operator's management system.
- Arguments related to the management, segregation and cross-contamination of solid radioactive waste will be updated to incorporate the identification of the preferred option from ROA4. An assessment of the extent to which the overall demonstration of BAT for the BWRX-300 is supported or undermined by incorporation of the preferred option will be undertaken by SQEP. In the event that SQEP considers that the case is undermined the decision tool will be applied to determine future steps, which could include revisiting the outcomes of the options assessment undertaken to address ROA4. A similar exercise will be undertaken to determine the impacts on ALARP arguments presented in the PSR.

<u>RO-BWRX300-002 A6</u> – Define the waste classification of all other wet solid wastes generated from the BWRX-300 design, following refinement of the EUST (Forward Action PER5-113). Identify whether there are waste streams with different waste categories (for example, LLW sludges and ILW sludges). If so, actions RO-BWRX300-002 A4 and RO-BWRX300-002 A5 will need to be repeated for these wastes.

<u>Proposed activities to address the RO Action</u>

Wet solid radioactive wastes generated by operation of the BWRX-300 comprise spent resins and filter backwash sludges. Management of filter backwash sludges shall be considered as part of an integrated programme of work with spent resins to determine a holistic optimised solution for management of BWRX-300 wet solid radioactive wastes and which will be presented in a revised demonstration of the application of BAT and ALARP for the BWRX-300. See responses to ROA3-5.

RO-BWRX300-002 A7 – Evaluate whether the mixing of floor, equipment and process drains prior to treatment in the LWM compromises subsequent effective management of these wastes

In response to this Action, the RP should:

- **Evaluate whether the mixing of floor, equipment and process drains prior to treatment in the LWMS compromises subsequent effective management of these wastes**
- **Evaluate whether the mixing of floor, equipment and process drains prior to treatment in the LWMS facilitates the subsequent effective management of these wastes**
- **Identify and include where appropriate any relevant OPEX or RGP**

Proposed activities to address the RO Action

The EFS collects drained process water from various areas of the plant in a dedicated set of sump tanks, that is then routed to the LWM for processing and recirculation in the plant.
In response to ROA7, a future developer/operator shall complete the following actions prior to site licensing/environmental permitting, supported by GEH as appropriate:

- Derive RM Process Source Terms (PrSTs) for the EFS aqueous sump tanks for normal operations (**FAP.PSR23-133**).
- Identify the nature and quantify the risk of ingress of off-spec inventory (e.g., oils, chemicals, organics) into the EFS aqueous sump tanks.
- Review the PrST data for uncertainties and assumptions that may impact the radioactivity of drained process water collected by the EFS. Without prejudice to a future programme of work, these shall include (but are not limited to):
    - The impact of BWRX-300 design features (e.g., use of GNF2 fuel, material selection, water chemistry regime, low cobalt inventory)
    - AOOs (**FAP.PER5-110**)
    - Fuel pin cladding failure events.
- Perform sensitivity analysis to determine the extent to which the EFS PrSTs may be expected to change as a result of the uncertainties and assumptions identified during the review above.
- Identify options for LWM processing of drained process water collected in the EFS aqueous sump tanks, taking account of Relevant Good Practice (RGP).
- Identify a preferred option from those identified in the previous step using a systematic decision making-/options assessment process that shall be undertaken and recorded by SQEP. This shall consider environmental risks, to be reviewed under ROA8, and determine if the identified options compromise, or facilitate, treatment of drained process water for recirculation in the plant.
- Gather and assess relevant OPEX including data from operational BWRs and the Fukushima Advanced Liquid Processing System (on which the LWM design is based, and considered RGP for radioactive aqueous liquid processing) and include in the evaluation process.

RO-BWRX300-002 A8 – Evaluate whether the mixing of floor, equipment and process drains prior to treatment in the LWM increases environmental impacts or risks (for example, increased volume of secondary wastes).

In response to this Action, the RP should:

- **Provide information on the volume of secondary waste expected to be generated from the LWMS and how this compares to wastes generated from LWMS on comparable power stations across the world**
- **Evaluate whether there are any other environmental impacts or risks associated with the mixing of floor, equipment and process drains prior to treatment in the LWMS**
- **Identify and include where appropriate any relevant OPEX or RGP**

Proposed activities to address the RO Action

The LWM is presented as a conceptual design at GDA Step 2, and therefore information relating to secondary waste generation is not currently available.
In response to ROA8, a future developer/operator shall complete the following actions prior to site licensing/environmental permitting, supported by GEH as appropriate:

- Define the sources and nature of LWM secondary radioactive waste arisings, when detailed design information is available (**FAP.PER5-112**).
- Quantify secondary waste generation (volume and radioactivity) for the options relating to LWM processing identified in ROA7.
- Undertake a comparison of BWRX-300 LWM secondary radioactive wastes (volume and radioactivity) with comparable nuclear power plants around the world. Data should be normalised for power output and operating hours to enable a representative comparison to be made.
- Identify and quantify environmental risks associated with the mixing of floor, equipment and process drains prior to treatment in the LWM and techniques to mitigate them. This may involve consideration of Foreign Material Exclusion practices and operator training to avoid unnecessary contamination of LWM influent streams.

RO-BWRX300-002 A9 – Demonstrate that the mixing of floor, equipment and process drains prior to treatment in the LWM is BAT

In response to this Action, the RP should:

- **Provide a justification that the approach to mixing floor, equipment and process drains prior to treatment is BAT, taking into consideration the outputs from Actions RO-BWRX300-002 A7 and RO-BWRX300-002 A8.**

Proposed activities to address the RO Action

In response to ROA9, a future developer/operator shall complete the following actions prior to site licensing/environmental permitting, supported by GEH as appropriate:

- Evidence gathered during the delivery of ROA7 and ROA8 related to the selection of a preferred option will be synthesised and incorporated into the CAE model developed to demonstrate the application of BAT for the BWRX-300 (**FAP.PER6-314**) and into the ALARP arguments for the safety case. Any actions arising from the application of the

decision tool will be addressed by applying the relevant process/procedure within the future developer/operator's management system.

- Arguments related to the mixing of floor, equipment and process drains prior to treatment in the LWM will be updated to incorporate the identification of the preferred option from ROA7. An assessment of the extent to which the overall demonstration of BAT for the BWRX-300 is supported or undermined by incorporation of the preferred option will be undertaken by SQEP. In the event that SQEP considers that the case is undermined the decision tool will be applied to determine future steps, which could include revisiting the outcomes of the options assessment undertaken to address ROA7. A similar exercise will be undertaken to determine the impacts on ALARP arguments presented in the PSR.

Impact on GDA submissions

There is no impact on GDA submissions, which have already been submitted as Rev B.

Timetable and Milestone Programme Leading to the Deliverables

ROA1 and ROA2 actions have been completed by the RP during GDA Step 2. Actions identified in the RO Resolution Plan for ROA3-9 would be completed by a future developer/operator of a BWRX-300 installation in the UK during future development phases for finalisation of the design for a UK BWRX-300 project, supported by GEH subject to appropriate contractual arrangements. It will be the responsiblility of the future developer/operator to determine an integrated delivery programme for BWRX-300 design development activities in the UK, therefore no completion timescales or durations are specified as part of the RO Resolution Plan.

An indicative milestone programme for ROA1-9 is provided in Figure 1, showing the logic-linked series of activities for completion within a project phase but without specific dates, as described in the RO Resolution Plan. It shows an indication of critical path activities, and actions that may be completed in parallel. A future developer/operator would develop a refined schedule, which may present activities in a different order and with different durations to those indicated in Figure 1. Work should commence for ROA3-9 as early as practicable post GDA Step 2 to de-risk the project as far as possible. For the purposes of this indicative schedule it is assumed that all 'business as usual' design development activities (e.g., definition of final site configuration, detailed design of the LWM and radiological zoning of the power block) prerequisite to discharging actions ROA3-9 have been completed prior to the commencement of this programme.

References

1. "Radioactive substances management: generic developed principles", Environment Agency, May 2024.
2. "Safety Assessment Principles for Nuclear Facilities", 2014 Edition, Revision 1, Office for Nuclear Regulation, January 2020.
3. M250072, "Submission of BWRX-300 UK GDA Regulatory Query (RQ)-01810 Full Response", GE-Hitachi Nuclear Energy, Americas, LLC, April 2025.
4. NEDC-34223P, "BWRX-300 UK GDA Chapter E6 – Demonstration of Best Available Techniques Approach," Rev B, GE-Hitachi Nuclear Energy, Americas, LLC.
5. NEDC-34199P, "BWRX-300 UK GDA Chapter 27 – ALARP Evaluation," Rev B, GE-Hitachi Nuclear Energy, Americas, LLC.

6. “The Environmental Permitting (England and Wales) Regulations 2016” (as amended), Statutory Instruments 2016 No.1154, UK Parliament.
7. NEDC-34174P, “BWRX-300 UK GDA Chapter 11 – Management of Radioactive Waste,” Rev B, GE-Hitachi Nuclear Energy, Americas, LLC.

RO-BWRX300-002 Indicative Milestone Programme				Within GDA Step 2	Post GDA Step 2 and Prior to site licensing / environmental permitting
	Activity	Start	Finish		
	ROA1 - Assumed waste classification of ICC bead resins during normal operations				
1.1	Identify ICC bead resin classification within GDA submissions	GDA Step 2	GDA Step 2		
	ROA2 - Design intent of the spent bead resin tank				
2.1	Clarify design intent of spent bead resin tank within GDA submissions	GDA Step 2	GDA Step 2		
	ROA3 - Wet solid waste classification				
3.1	Refine EUST and determine waste classification for normal operations	Post GDA Step 2	Prior to site licensing / environmental		
3.2	Review of uncertainties and assumptions	Post GDA Step 2	Prior to site licensing / environmental		
3.3	Sensitivity analysis/ impact on waste classification	Post GDA Step 2	Prior to site licensing / environmental		
3.4	Use of 'actual' BWRX-300 OPEX	Post GDA Step 2	Prior to site licensing / environmental		
	ROA4/ 6 - Wet solid waste management (spent resins and sludges)				
4.1	Identify options for wet solid waste management	Post GDA Step 2	Prior to site licensing / environmental		
4.2	Identify preferred option	Post GDA Step 2	Prior to site licensing / environmental		
4.3	Review of uncertainties and assumptions	Post GDA Step 2	Prior to site licensing / environmental		
	ROA5 - BAT and ALARP justification (wet solid wastes)				
5.1	Synthesis of evidence for wet solid waste management	Post GDA Step 2	Prior to site licensing / environmental		
5.2	Review impact on overall demonstration of BAT and ALARP	Post GDA Step 2	Prior to site licensing / environmental		
	ROA7 - Drained process water management				
7.1	Determine RM PrSTs for EFS sump tanks (normal operations)	Post GDA Step 2	Prior to site licensing / environmental		
7.2	Identify nature and quantify risk of off-spec inventory ingress to LWM	Post GDA Step 2	Prior to site licensing / environmental		
7.3	Review of uncertainties and assumptions	Post GDA Step 2	Prior to site licensing / environmental		
7.4	Sensitivity analysis/ impact on PrSTs	Post GDA Step 2	Prior to site licensing / environmental		
7.5	Identify options for drained process water management/ LWM processing	Post GDA Step 2	Prior to site licensing / environmental		
7.6	Identify preferred option	Post GDA Step 2	Prior to site licensing / environmental		
7.7	Use of relevant BWR OPEX/ RGP	Post GDA Step 2	Prior to site licensing / environmental		
	ROA8 - Quantify LWM secondary waste generation				
8.1	Define sources and nature of LWM secondary wastes	Post GDA Step 2	Prior to site licensing / environmental		
8.2	Quantify secondary waste generation for options in ROA7	Post GDA Step 2	Prior to site licensing / environmental		
8.3	Undertake comparison of LWM secondary waste generation with comparable	Post GDA Step 2	Prior to site licensing / environmental		
8.4	Identify and quantify associated environmental risks	Post GDA Step 2	Prior to site licensing / environmental		
	ROA9 - BAT and ALARP justification (LWM processing)				
9.1	Synthesis of evidence for LWM processing	Post GDA Step 2	Prior to site licensing / environmental		
9.2	Review impact on overall demonstration of BAT and ALARP	Post GDA Step 2	Prior to site licensing / environmental		

Figure 1: RO-BWRX300-002 Indicative Milestone Programme