



RSA Annual Permit Review Interim Report 2023

EM/2023/029

RTS. SL-2022-446-01

30th June 2023

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Summary

This interim permit review report provides a summary of future Radioactive Substances Activities (RSA) Permitting issues which Sellafield Ltd has identified during the annual review of the RSA Environmental Permit. Further detail will be provided in the final permit review report for submission to be made on or before 1st October 2023.

Priority Issues for consideration

SL is applying for a variation to the RSA permit which is driven by timescale requirements relating to registration of the new Magnox Swarf Storage Silo (MSSS) Retrievals Ventilation System (RVS) stub stack. The application covers several issues including registration of the RVS stack with proposed plant notification levels (PNLs), removal of gaseous Site Limits for Kr85 and Sb125, inclusion of Outfall X, reduction to the Ra226 limit and update to the site plan in Schedule 7 to remove detail of the CLEMA/ CLESA. The application is being sent along with this report and is being made now to seek an RSA permit variation effective 1st October 2023 which will facilitate inactive commissioning of the RVS stack, currently projected to commence in Autumn 2023. Further information and details of the required changes are provided in the variation application supporting letter (reference EM/2023/031) and a summary of the key issues included in the variation application and some additional minor changes to the permit is provided in table 1 below.

A detailed review of PNLs is being undertaken and will be discussed with the EA lead regulator.

Effluent routing to the Calder Interceptor Sewer (CIS) from the BEPPS-DIF project has been the subject of recent discussion with EA as active commissioning is expected to begin during October 2023. Discharges will be very low in terms of volumes and activity, and this doesn't require a permit change though it does require confirmation and agreement from EA in advance of the new discharge route into CIS (as required by the permit S1.3B.5) based on acceptance that it is BAT to discharge trace effluent to the CIS. The Conformance Document is now complete, and no concerns have been identified to date by the local EA regulator.

Changes to the CEAR

SL notified the EA of the end of Magnox bulk reprocessing in July 2022 and submitted a BAT justification in May 2023 demonstrating the subsequent decline in discharges of gaseous Kr85 and Sb125 to justify removal of the limits. EA accepted this justification and issue 25 of the CEAR, effective 01/07/2023, states an end date of 31/03/2023 for the upper tier limit with no lower tier limit in force. Upon reissue of the permit, these limits can be removed entirely from both the permit and CEAR.

Discharge of aqueous waste via Outfall X is permitted through S3.2C W4 as an approved outlet under issue 25 of the CEAR (reference SEL/O/23/023).

The RSA permit will be varied to permit discharge via Outfall X under S3.2C as a new outlet reference W5 and Outfall X will be removed from the CEAR as an approved outlet.

SL will continue with this years' review and will submit a final report later in the year. SL will consider early submission of the final report if appropriate to align with proposed permit variation timescales.

List of Tables in this report

Table 1 summarises short term future permit changes.

Table 2 identifies short term CEAR changes.

Table 3 presents current known Techniques Document changes.

Table 4 presents future longer-term issues which may require a permit or CEAR change.

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Supporting Information and References

Key supporting documentation is listed.

BAT Case to justify the removal of the Kr85 and Sb125 gaseous Site discharge limits and respective environmental monitoring requirements from the Radioactive Substances Activities Permit KP3690SX – EM/2023/005

CLESA Valley Document – PCRSA Addendum 60672670-ACM-RP-EN-004_C

EM/2023/031 Environmental Permit for Radioactive Substances Activities KP3690SX, Variation Application 2023 Supporting Information

■■■■.MSC/2023/034 Note For the Record defining the Magnox Swarf Storage Silo Retrievals Ventilation System registration proposal for Plant Notification Level inclusion within the Environmental Permit, EPR KP3690SX.

Table 1: RSA Permit Review 2023 – Priority issues affecting the Permit

Operating Unit	No.	Issue for Action	Timescale	Update	Supporting Detail
Projects	1	Include Outfall X in RSA Permit	2023	<p>Inclusion of Outfall X in the RSA permit as a new approved outlet (as S3.2C W5) for discharge of construction related aqueous waste arisings (non-sewage trade waste) into the river Calder. It is SL's intention, considering that any radioactivity present will be below typical limits of detection (LOD), that Outfall X will be managed through existing management system arrangements (ensuring the application of BAT) and will not be subject to any monitoring or discharge reporting against Site limits. The disposal outlet reference and footnote 5 in table 3.2A should be updated to reflect this position. Outfall X will be included in pre-operational measure S1.3B.5 alongside FS/ CIS requiring BAT case and EA agreement to introduce any new 'engineered routes'.</p> <p>This has already been discussed and agreed with EA in principle and is subject to a separate WDAP application which provides all the project detail. Discharge via Outfall X is currently permitted under S3.2C W4 as an approved outlet in issue 25 of the CEAR.</p>	
Site Environmental Management	2	Removal of gaseous Site discharge limits and plant notification levels for Kr85 and Sb125	2023	<p>The RSA major permit variation application included proposals to remove the gaseous Site discharge limits for Kr85 and Sb125. SL presented the case that gaseous discharges of these species would reduce significantly following the end of reprocessing. EA accepted the justification subject to SL demonstrating the reduction in discharges prior to removal of the limits by continuing to collect discharge, modelled and environmental data over a suitable period. SL notified the EA of the end of Magnox bulk reprocessing (July 2022) and submitted the BAT justification in May 2023 demonstrating the subsequent decline in discharges. EA accepted this justification and the gaseous Site limits, plant notification levels and associated reporting requirements for Kr85 and Sb125 were removed effective 31st March 2023 through issue 25 of the CEAR (SEL/O/23/023). The annual gaseous site limits for Kr85 and Sb125 and notification levels (Kr85 for Separation Area Ventilation Stack and Sb125 for Fuel Handling Plant Stack) should be removed from the permit.</p>	BAT Case reference EM/2023/005
Site Environmental Management	3	Removal of footnotes relating to the end of Magnox reprocessing	2023	Footnote 2 in tables 3.1A and 3.2A can be removed following the end of Magnox Reprocessing.	

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Retrievals MSSS	4	MSSS Permitting of gaseous discharges during retrievals MSSS 1 st and 2 nd extension MSSS 3 rd extension	2023	SL have applied to include the Retrievals Ventilation System (RVS) stack as a new scheduled stack in the RSA permit to facilitate inactive commissioning operations, due to commence Autumn 2023. Detailed discussions have already taken place with EA and the local regulator, and no significant concerns have been raised. Details of the change including proposed plant notification levels are provided in the supporting paper referenced [REDACTED].MSC/2023/034 and variation application supporting letter reference EM/2023/031. Once the RVS stack is operational, the current scheduled MSSS stacks (A2 and A12) will then be removed from the permit as agreed with EA.	[REDACTED] MSC/2023/034 Note For the Record defining the Magnox Swarf Storage Silo Retrievals Ventilation System registration proposal for Plant Notification Level inclusion within the Environmental Permit, EPR KP3690SX. EM/2023/031 Environmental Permit for Radioactive Substances Activities KP3690SX, Variation Application 2023 Supporting Information
Remediation (Solid Waste)	5	CLESA extension into the "valley"	2023	SL are proposing to extend CLESA into an adjacent 'valley area'. This would increase CLESA's volumetric capacity by around 23% and could extend the facility lifetime by around 5 to 6 years (based on typical historical disposal rates). An update to drawing of Calder Tip / CLEMA/ CLESA (inc. valley extension) included in the site plan – schedule 7 would be required. SL is proposing that details of the CLESA/ CLEMA be removed from the site plan. Section 7.2.1 of the PCRSA addendum assessment proposes a reduction in the Ra226 disposal limit in the permit. Further details of these proposals are included in the PCRSA addendum reference: CLESA Valley Document – PCRSA Addendum 60672670-ACM-RP-EN-004_C and RSA variation application supporting letter reference: EM/2023/031.	Reference: CLESA Valley Document – PCRSA Addendum 60672670-ACM-RP-EN-004_C EM/2023/031 Environmental Permit for Radioactive Substances Activities KP3690SX, Variation Application 2023 Supporting Information
Remediation Solid Waste	6	Date change for Improvement and information requirement S1.2.5	2023	The date for the Closure and Aftercare Management Plan for CLESA has an incorrect due date reflecting the uncertainties at the time of the MPR review and delays due to COVID. There have been email communications previously explaining that following engagement with the supply chain, it will not be possible to meet the agreed 1 st November 2020 date. An achievable date has now been agreed with the supply chain and has been agreed verbally and in writing with EA. The deadline has been rescheduled for September 2023 which SL expect to meet.	Letter reference SL/2022/210/01

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Site Environmental Management	7	Date change for improvement and information requirement S1.2.8	2023	The date and frequency of the radiological ventilation systems report has been amended to 01/08/2022 on an annual basis. This has been agreed verbally and in writing with EA.	Email from [REDACTED] dated 02/11/2022
Site Environmental Management - LECWP	8	Review of Aqueous PNL's	2023	<p>Aqueous PNLs are continuously reviewed as business as usual. The value of the PNL system has been underpinned through regular interaction regulatory discussion on discharges, including recent discussions on EARP discharges during 2022 and Factory Sewer discharges during 2023.</p> <ul style="list-style-type: none"> - This has continued to demonstrate that at a system level PNLs remain set where they can be exceeded, and overall headroom is therefore not excessive. - Whilst it is recognised that small changes (increases and decreases) could be identified at any review, the cumulative effect of making minor changes and the wider context of site discharges needs to be accounted for when determining whether to make alterations. The annual review is in preparation and likely to include a broader set of potential changes for consideration against this criteria, recognising the extent of discharge changes resulting from the cessation of bulk Magnox Reprocessing has not been realised in the data, or a very small data set is available on which to re-baseline. <p>A detailed review will be produced and discussed directly with the lead EA regulator later during 2023.</p> <p>Additional consideration should be made of the value of applying the PNL approach to the Laundry and Thorp C14 plants, where discharges are both minor in a site context and the timing of discharges do not align to effective trending on a rolling annual basis. It is proposed that alternatives, such as an 'aqueous other outlet registration' are considered along with relevant bespoke monitoring and communication processes.</p>	
Site Environmental Management - AECWP	9	Gaseous PNL review	2023	Similarly to aqueous waste, a PNL review is underway and will be communicated directly to the lead regulator in 2023.	

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Site Environmental Management	10	Review of Table S1.2 Improvement & Information Requirements	2023	A review of the permit improvement requirements is required for the following conditions S1.2.10, S1.2.12, S1.2.13 & S1.2.14. All submissions have been made (in 2021 and 2022) therefore consideration can be given to removing the requirement (or noting as complete).	
Site Environmental Management	11	Review of pre-operational measures S1.3B.2 and S1.3B.3 relating to LLW and VLLW	2023/24	These conditions have been in the permit for a considerable time and it has been agreed that they require review. It may be an option to remove the requirements but if not, the wording should be aligned with subsequent pre-operational measures which are clearer in relation to expectations.	
Environmental Management	12	Move PNLs from Permit into CEAR.	2024/2025	<p>PNLs were introduced into the permit as part of the major permit variation and there are now real examples where plant aqueous discharges have exceeded PNLs, but these have been managed effectively (noting EA feedback highlighting good practice through SLs close engagement EA). SL is required to review the PNLs as part of annual RSA review process, though PNLs are continuously reviewed as business as usual. The outcome of the annual review is to determine the changes warranted to maintain intent of the PNL system through benefit of closely aligned numerical values reflective of planned operations in the near-term. For the PNL system to be effective and main integrity delivering confidence to the regulator and operator, it must be dynamic and have no impediments to regular change, up or down. Since the PNLs were first introduced into the permit in October 2020, no changes to the numerical value of PNLs have been implemented. This recognises the current implementation burden of making changes, including the requirement for permit variation (and associated timescales and potential consultation requirements) but also the optics of altering figures within a permit. Hence this requires further discussion on whether the PNL's can be managed more effectively through the CEAR. An additional consideration is the applicability of a PNL process to all discharge scenarios, where a more bespoke solution may be more applicable (e.g., a stream that discharges sporadically, assigned a rolling annual figure, may not derive the same process functionality and so fail to meet the design basis), which is considered more achievable through definition within the CEAR.</p> <p>EA and SL should further engage on the proposal to capture PNLs in the CEAR, rather than the permit to enable a more streamlined approach to changes.</p>	

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OFFICIAL**Table 2: RSA Permit Review 2023 – Priority issues/ corrections affecting the CEAR**

Operating Unit	No.	Issue for Action	Timescale	Update	Supporting Detail
Projects	13	Include Outfall X in the CEAR	2023	The CEAR was reissued (issue 25 effective 01/07/2023) to permit discharge via Outfall X as an approved Outlet under S3.2C W4. Once the permit is reissued (1 st October 2023) Outfall X will be removed from the CEAR as an approved outlet and will be permitted in table S3.2C as W5.	
Remediation	14	Registration of Other Outlet	2023	Registration of an Other Approved Outlet to enable continued Pile 1 Chimney block remediation by cutting at Calder. This activity is currently covered by a temporary Other Outlet registration. The Other Approved Outlet registration recognises the expectation that block cutting will continue to be required for a percentage of the block population not directly compliant with CLESA disposal during forthcoming barrel demolition; in order to maximise CLESA disposal and minimise LLW disposals. An Other Approved Outlet is required for the potential gaseous discharge release from the cutting activity. This is minimised by use of the wet cutting technique. Further details, including reference and description for inclusion in the CEAR will be provided in the final review report.	
Environmental Management	15	CEAR Table 1 change to reflect removal of gaseous Kr-85 & SB-125 site limits	2023	SL provided justification in the form of a BAT Case that discharges have dropped to insignificant levels which was accepted by EA. Issue 25 of the CEAR, effective 01/07/2023, states an end date for the upper tier limit of 31/03/2023. Upon reissue of the permit to remove site limits for Kr85 and Sb125 entirely they can also be removed from table 1 in the CEAR.	Relates to issue 2.
Remediation (Solid Waste)	16	CLESA extension into the "valley"	2023	Repeat of number 5, this also affects the CEAR (Proforma 7 – Footnote 5). See update against 5	
Utilities	17	Review of Laundry Other Outlets	2023	Rationalisation of Laundry Other outlets was recommended as part of the 2022 annual permit review. Currently there are 8 registered stacks in the CEAR. Upon further review and consideration, the current Other Outlet registrations are appropriate and there is no longer a recommendation to rationalise. This issue can be closed out.	
Retrievals	18	Interim Storage Facility Other Outlet Form Revision	2023/24	The Interim Storage Facility (ISF) Other Outlet Registration form is being revised to allow the storage of Fuel Bearing Materials (FBM) alongside Zeolite Skips in ISF. The project schedule is currently set to apply for the licensed instrument in October this year therefore the update of the Other Outlet form coincides with this date which SL will submit to EA. The existing form already explores the possibility of storing multiple different waste types.	

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Environmental Management	19	Review of CEAR Reporting Requirements	2023/24	<p>SL is undertaking a review of reporting deliverables to ensure future submissions continue to add value and meet EA expectations. This review recognises the maturity of some requirements and the substantial resource effort necessary to compile the submissions. SL will compile the findings from the review and include any identified improvement proposals as part of the final RSA review report.</p> <p>Early discussions have taken place with the lead EA regulator and will continue as the review develops.</p>	
Environmental Management	20	CEAR requirement 3.2 Review of environmental monitoring programme	2023/24	<p>SL is currently required to undertake and submit a 3 yearly formal review of its environmental monitoring programme to ensure it remains BAT. Considering the maturity of the programme and the current operational status of the site (with continuing run down of operations). SL are proposing to review the scope/format of the next 3 yearly submission which SL will submit in October 2023 and for this to be extended to a 5 yearly submission.</p>	
Site Environmental Management	21	AR Requirement number 3.2.5(a)/ v011 part 2 – duplicate sampling Factory Sewer and Lagoon	2023/24	<p>The CEAR specifies additional nuclide analysis for the quarterly Factory sewer and Lagoon samples, over and above those measured for local compliance (with PNL's). These were introduced in the major variation on 1st October 2020, without any significant discussion. The Decision Document notes (para 527) that in response to the reported liquor loss from the MSSS original silo structure some minor additional independent check monitoring should be undertaken of samples from the factory sewer and lagoon.</p> <p>One of the successes of the MPR variation was to simplify reporting of site discharges with respect to contributing plants, removing 'non-scheduled' nuclides and the requirement to measure contributions to site totals where there are no local controls. This new CEAR requirement is therefore odd re-introducing analysis of radionuclides in samples where there is no requirement for plant compliance (i.e., no PNL). It has potential to add confusion and get missed. (It requires analysis of additional species on a quarterly basis which aren't required routinely on a monthly basis for permit compliance).</p> <p>Insertion of this requirement in the CEAR duplicate sampling does not seem the best way to address this (it will not be trended against a PNL). The MSSS leak is being thoroughly considered within the Groundwater monitoring programme and regular reports are produced and discussed with EA with opportunity to influence.</p> <p>The additional radionuclides for FS are: Cs137 plus any other gammas The additional nuclides for Lagoon are: Tc99, Am241, Cs137 plus any other gammas.</p>	As raised in last year's permit review.

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Site Environmental Management	22	Permit condition 4.2.2 Part 2: Other Specifications, CEAR 3.4(a) Review of discharge data for all 'open fuel storage ponds' and 'other approved outlets' to understand and highlight the reasons for any significant changes in discharges and to summarise any required changes in other approved outlets	2023/24	This is a CEAR requirement introduced in 2021 which had limited discussion with EA. The benefits provided by this review are not clear since it is not easy to determine 'significant' changes in these discharges (arguably discharges are negligible). Where there are changes in trends these will rarely, if at all, be relatable to site operations but can often be related to changes in weather conditions. There has been considerable work done to investigate this. Further discussion is required to ensure future submissions provide value and to clarify EA expectations.	As raised in last year's permit review. Two annual submissions have now been made and feedback awaited. Submission made 30/09/2022 CEAR Requirement 3.4a reference EM/2022/120.
Environmental Management	23	Ongoing review of the duplicate and witnessed sample programmes with revisited consideration to laboratory MCERTS accreditation.	2023/24	SL has challenged the benefits of the duplicate and witnessed sampling programmes in the past and continues to consider the benefits provided by the duplicate and witnessed programme alongside opportunities for efficiency savings (e.g., video recording sampling to avoid the need for witnessing). The programmes generate a significant amount of extra work not just for SL but for EA and UK HSA too. SL have completed a trial to test the possibility of video recording the witness sampling programme. SL have reviewed the footage and will not be pursuing the video recording option in the immediate future. SL believe the best solution in the interim period based on resourcing requirements and reliability of results is to reduce the scope of the witness sampling programme to a biannual basis, this would be based on the 1 st and 3 rd quarter of the witness sampling results. SL also plan to reconsider the possibility of obtaining MCERTS for liquid radiochemical analysis, since the EA has previously stated that the duplicate sampling programme could only be reduced or removed if MCERTS accreditation was obtained.	
Environmental Management	24	Changes to Sample retention arrangements	2023/24	SL intend to request changes to the sample retention arrangements – across all sample types. The intent is to propose a simplification of arrangements for discussion between EA and SL and submit within 2023.	

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Retrievals PFCS	25	Pile Fuel Cladding Retrievals Project.	The current forecast for starting to interact with the waste during 2023 calendar year. There will then be a slow ramp up in operations throughout 2023/2024.	This project covers the actual retrieval of the waste within the PFCS silo. The main containment room (MCR) has an associated gaseous discharge stack that has been registered as an 'Other Outlet'. PFCS retrievals have not begun yet due to there being issues with the machinery required to undertake this. NFR/PFCSPROG/PROJ/00497/A (Implementation of Learning around Environmental Considerations in the PFCS Learning Plan) was shared with the EA in November 2021. Work on producing detailed learning requirement plans and the required implementation activities to cover the full Programme are ongoing – detail will be shared with the Environment Agency at future engagement sessions, e.g., at SLG.	For information - no CEAR change required
Retrievals MSSS	26	Removal of Other Outlets	2024/ 2025	Numerous Other Outlets associated with MSSS will become defunct following the operation of the Retrievals Ventilation System. These Other Outlets will be removed following the active operations of the RVS stack. The RVS is expected to be brought into service during the 24/25 financial year.	
Environmental Management	27	Move PNLs from Permit into CEAR.	2024/2025	Repeat of issue 12.	

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OFFICIAL**Table 3: RSA Permit Review 2023 – Issues to update re the Techniques Document (TD)**

Operating Unit	No.	Issue for Action	Timescale	Update	Supporting Detail
Site Management and Functions Site/ SAV	28	Standardised reporting	2023/24	<p>Site approach developed following meeting with EA on 14th June 2021. SL submission on revised draft proposal in Feb 2022 and EA comments received. Discussion with EA being planned (EA are identifying responsible resource) SL have submitted a final proposal (June 2022) for discussion and agreement, incorporating EA comments targeting implementation of standardised reporting in the 2023 PI return (2022 data). Potential to result in some TD changes. Unlikely to result in any CEAR or Permit changes in the short term.</p> <p>SL have received written agreement from EA on the report submitted in June 2022. A number of recommendations have been written up which SL will address and produce a revised report. SL will then start the process of implementing Standardised reporting on SAV Stack.</p>	Report Reference EM/2022/071 submitted to EA on 22/06/22

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Table 4: RSA Permit Review 2023 – Longer term issues affecting the Permit & CEAR

Operating Unit	No.	Issue for Action	Timescale	Update	Supporting Detail
Retrievals FGMSP	29	Reclassify FGMSP stack as an 'Other Outlet'	TBC	An application was made to downgrade FGMSP stack as part of RSA major permit review. However, due to the uncertainties surrounding the Decanner Clean Up project, in which the Decanner caves are to transition from a quiescent care and surveillance state to active retrievals, an application to downgrade the FGMSP stack does not seem appropriate in the near future.	
Spent fuel management FHP	30	Reclassify FHP stack as an 'Other Outlet'	TBC	Following the completion of Magnox bulk reprocessing (July 2022) there will be a pause to facilitate the site outage and then a restart of the facility in September to enable the operational rundown which finished at the end of the calendar year. The local team plan to downgrade the stack following the end of decanning operations. This is still planned and is on the SFS worklist, however, at present workload priorities mean that it is unlikely to be completed this year.	
Site Environmental Management	31	Review discharge reporting requirements	2023-2025	There is an ongoing opportunity to consider improvements to RSA discharge reporting and records. There is also an opportunity to make general permit improvements in particular relating to marine discharges (Site/Sea pipelines/Plants) and reporting arrangements which may be identified and considered during the major review of the Installations permit.	

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Project Delivery	32	SIXEP Continuity Plant	Inactive commissioning expected in 2026 with Active commissioning expected around 2028.	Active commissioning of SCP scheduled for 2028. Details and proposals for permitting are being developed during detailed design. Engagement with new EA inspector scheduled for June 2023. Work to update the SCP liquid and aerial flowsheets is scheduled for 2023/24 by process engineers, after which environmental resource will complete aerial and liquid discharge and data calculations to allow engagement regarding RSR permit implications and requirements. A CEAR update (registration of stack as Other Outlet) will be required prior to active commissioning.	
Project Delivery	33	Sellafield Product and Residue Store Retreatment Plant (SPRS)	Active commissioning 2027/2028	Stack classification yet to be confirmed. There has been local and site interaction with EA in regard to permitting requirements of discharge stacks on the classification of stacks as 'Other Outlets' or registered/scheduled stacks. This is associated with the "5% of Site discharges" rule and reduction in discharges resulting from the end of reprocessing. The project engineers have designed to allow for both sampling and monitoring of gaseous discharges, and this requires further review prior to a decision.	
Site Management and Functions AS and PF&S	34	Rename stack A10 (AS & PF&S) to remove PF&S. Register new Other Outlet for PF&S. Subsequently review AS discharge arrangements.	~2028	PF&S have been reviewing discharge arrangements and are planning a dedicated stack in future, which is likely to be registered as an 'other outlet'. The project programme is in development now but is approximately 5 to 7 years with commissioning of the new stack expected 2028. There has been a review of the impact on the removal of the PF&S discharge flowrate from the total discharge, and this shows the reduction is acceptable, further review of the impact upon effective stack height will be required to support the PMP nearer to the time of implementation. Work has now been completed on the optioneering for ventilation of the SNM north filter house, which has concluded that the new ventilation system to be installed for PF&S has enough capacity to serve the filter house as well, so a stand-alone system (and second other outlet registration) will not be required.	
Project Delivery	35	Box Encapsulation Plant Product Store 2 (BEPPS2)	Active commissioning expected during the calendar year 2028/29 but exact timescales are to be confirmed	BEPPS2 gaseous discharge calculations have been updated for the Preliminary Phase. BEPPS2 gaseous discharges currently anticipated to be higher than BEPPS1, which may require C3 stack being registered and appropriate sampling/ monitoring to be installed.	

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Operating Unit	No.	Issue for Action	Timescale	Update	Supporting Detail
Project Delivery	36	Replacement Analytical Project (RAP)	Active commissioning is circa 2028 with registration anticipated to be completed within the next 5 years.	<p>Registration of 2 new aerial outlets and update to existing outlet for RAP. Two new stacks will be required to support the Special Nuclear Material (SNM) and Medium Active (MA) workstreams (1 stack each, which has separate C3 and C5 flues). The High Active (HA) workstream will tie into the existing NNL stack (permit 'disposal outlet reference' A13) so this will require an update.</p> <p>Aerial effluent assessments have been undertaken at concept design demonstrating minimal environmental impact. Aerial effluent modelling has been undertaken to assess the effective stack heights. The environmental assessments will be updated at detail design (2023/24) using the latest demand data and/or stack sampling data, and new building dimensions of the south extension; this will be the supporting information for the registration of the outlets. The classification of the stacks is yet to be determined, the EA Project Inspector has been engaged, with the provision of both sampling and monitoring included within the design.</p>	
Retrievals PFSP	37	Registration of Other Outlet for the PFSP dewatering project	2030	<p>A review of the options to achieve a dewatered interim state conducted in 2021 has concluded that a shielded option which leaves the activity within the concrete for insitu maintenance is the BAT/ALARP solution. A learning plan is being developed which will identify the knowledge gaps to be filled such that the pond is ready to traverse to a watered/ dewatered interim state.</p> <p>In summary PFSP inventory will be removed and be opportunistically deplanted. The first interim state will have been achieved which is a watered pond. Only when SL have demonstrated the ability to dewater in smaller localised areas such as the bays will we be able to consider whether to progress and dewater the PFSP pond.</p> <p>If PFSP progress and dewater the pond the registration of an Other Outlet will be required, this will be reviewed at every annual review and an update provided on the status of the project.</p>	

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Operating Unit	No.	Issue for Action	Timescale	Update	Supporting Detail
Retrievals MSSS	38	Box Encapsulation Plant (BEP)	Active commissioning early 2026	<p>The disposal route for steam condensate effluent is confirmed as to the CIS and the potential for there being suspect active liquid in the discharge has been mitigated.</p> <p>Likely to require Other Outlet registration(s) and / or have gaseous discharge point included within the RSA Permit, engagement with EA ongoing. The aerial discharges from the BEP active areas are anticipated to be other outlet registrations due to the low activity, there are some activity assessments ongoing that may slightly affect the original assessment given an increase in activity in some of the packages however these changes are not expected to affect the 'other outlet' status.</p>	
NNL Organisational Management	39	Site Permitting Considerations	TBC	Future consideration as to whether NNL Permitting is best addressed as part of the SL Site.	
Remediation Solid Waste	40	Future solid waste disposal landfill arrangements	TBC	<p>Studies have been conducted considering the feasibility of on-site locations, and the advantages and disadvantages of both on-site and off-site options. Further work is required to test assumptions and to integrate the work with other strategic developments. Once this is complete a preferred option can be selected for approval. Engagement with stakeholders including the EA will continue.</p> <p>Site Strategy suggested engagement with NWS, since a future off-site landfill could potentially be managed by NWS. Engagement has recently been initiated. There will be some time before a decision is made regarding the BAT option to replace the CLESA capability.</p>	
Operations NNL	41	NNL future aerial discharges during next stages of commissioning	TBC	<p>Potential for amendments to CEAR/ Techniques as NNL continues to commission remaining gaseous other outlet stacks. No timescale for next phases of commissioning.</p> <p>See Issue Number 36</p>	
Project Delivery	42	Lightly Shielded Store 1 (LSS1)	Active Commissioning early 2030s	LSS1 Aerial Discharges have been calculated for the Concept Phase of the Design, indicating the requirement for a registration of an 'Other Outlet'. The calculations will be revisited for the subsequent Design phases of the Project, and updates will be provided, where required.	

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Project Delivery	43	SIXEP Waste Management Receipt Facility (SWMRF)	Receipt Facility required to be operational by 2037	Intermediate Level Waste (ILW) storage receipt facility to support SIXEP and SCP. The specific capabilities of the Receipt Facility are currently being defined. Once the capabilities have been agreed, environmental and technical assessments will be undertaken to define the discharges and emissions. It is currently assumed that discharges / effluents will comprise of gaseous, aqueous and solid wastes.	
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