



OFFICIAL

**HAL Stocks**  
**HALES Operating Rule 20**

Project Assessment Report ONR-SDFW-PAR-17-002  
Revision 0  
May 2017

OFFICIAL

## OFFICIAL

© Office for Nuclear Regulation, 2017

If you wish to reuse this information visit [www.onr.org.uk/copyright](http://www.onr.org.uk/copyright) for details.

Published 05/17

*For published documents, the electronic copy on the ONR website remains the most current publicly available version and copying or printing renders this document uncontrolled.*

OFFICIAL

## OFFICIAL

### EXECUTIVE SUMMARY

#### **Modification of Existing Plant: Highly Active Liquid Evaporation and Storage (HALES) Operating Rule (OR) 20**

##### **Permission Requested**

In accordance with its arrangements under Licence Condition 22(1), "Modification or experiment on existing plant", of schedule 2 of site licence 103, Sellafield Limited (SL), the licensee, has requested the Office for Nuclear Regulation's (ONR) "agreement" to withdraw the Highly Active Liquor Evaporation and Storage (HALES) plant's Operating Rule (OR) 20 and replace it with a new HAL stock control mechanism, in accordance with a Category B Plant Modification Proposal (PMP).

##### **Background**

The HALES facility supports both Thermal Oxide Reprocessing Plant (THORP) operations and Magnox reprocessing operations at Sellafield by receiving Highly Active Raffinate (HAR) and concentrating it through evaporation. The result is concentrated liquor known as Highly Active Liquor (HAL). The HAL is held in interim storage within HALES in Highly Active Storage Tanks (HASTs) prior to it being transferred to another facility, the Waste Vitrification Plant (WVP), where it is processed into glass blocks, suitable for long term storage.

In 2015, SL introduced HALES Operating Rule (OR) 20 to control its HAL stocks to replace the ONR Specification License Instrument (LI) 793 with the acceptance of ONR. The intention of OR-20 was to act as a strategic, high level control to ensure ongoing reductions in HAL stocks each year as part of the licensee's demonstration to ONR and other stakeholders that it is minimising the risk from its HAL stocks So Far As Is Reasonably Practicable (SFAIRP).

At the start of Financial Year (FY) 2016/17, SL projected that whilst it would comply with OR-20, this would only be by a small margin, as vitrification would not exceed reprocessing until late in the year. This resulted in less regulatory confidence that SL could comply with the OR than had previously been the case. To address this lack of confidence ONR introduced enhanced monitoring of the HAL stocks at site. During this monitoring it became apparent that OR-20 was not operating in the manner intended. This was due to the relatively low levels of HAL stored on site, compared to historical values, and the operational variability in the performance of upstream reprocessing facilities, and the downstream vitrification facility. In some cases ONR considered that this new OR presented an incentive for SL to take actions leading to increases of risk on site, and only regulatory attention helped ensure that this was not the case. In December 2016 ONR wrote to Sellafield requesting that it develops a new control system for HAL stocks. SL subsequently did comply with OR-20 for FY16-17.

SL has developed a new control system requiring the Spent Fuel Management Value Stream director to critically review the reprocessing and vitrification rates to ensure HAL stocks are being managed SFAIRP. This Project Assessment Report (PAR) covers ONR's assessment of this modification.

##### **Assessment and inspection work carried out by ONR in consideration of this request**

In accordance with an agreed regulatory strategy and scope, I assessed the licensee's proposals by:

- Performing sampled assessments of SL's suite of safety case documents supporting the modification
- Reviewing a number of the reports produced by SL's Independent Nuclear Safety Assessment (INSA) team and Internal Regulators
- Reviewing the site Nuclear Safety Committees (NSC) comments on the modification

OFFICIAL

## OFFICIAL

- Holding meetings and discussions to feed back our assessment findings and allow SL to present revised proposals.

### **Matters arising from ONR's work**

My assessment concludes that the licensee's arrangements for implementing the modification are adequate and suitably underpinned. I am also satisfied that (in effect) the legacy HAL stocks have now all been vitrified and that the risks from HAL stocks are now balanced with those from delays to reprocessing. This means that ONR considers a change of regulatory regime from a prescriptive approach to a goal setting approach is necessary and appropriate. I have also noted that this modification ensures the timely completion of reprocessing activities, in line with the Sellafield Lifetime Plan, and prevents unnecessary delays to the elimination of the HAL stocks.

### **Conclusions**

Based on my assessment of the safety case submitted and my interactions with SL during this work, I am satisfied with the claims, arguments and evidence laid down within the safety case and supporting documents. I am satisfied that the modification is necessary as the current arrangements had the potential to drive inappropriate behaviours where the licensee is focussing too much on a minimising the risk from HAL at the expense of other risks on site. Considering the complex risk environment around the spent fuel management facilities at Sellafield I am content that a prescriptive regulatory regime is no longer an appropriate means of regulatory control and judge that using a goal setting regime is appropriate and necessary.

I have reviewed the licensee's proposed new control system for managing its HAL stocks and I am content that this is reasonable and will lead to a reduction of risk on site and provides the flexibility necessary for SL to eliminate its HAL stocks as soon as reasonably practicable. I am satisfied that the licensee is actively pursuing all actions to reduce risks from HAL and eliminate the stocks as soon as reasonably practicable. Therefore I recommend that ONR issues LI502 to release the regulatory hold point and allows SL to withdraw OR-20 and implement the new HAL stocks control system. Given that this represents a change in strategy I recommend that ONR writes to Sellafield to detail its regulatory expectations on the management of HAL stocks going forward. On the basis that SL achieved compliance with OR-20 last year and has implemented a new control system I am satisfied that the shortfalls identified in Regulatory Issue (RI)4370 have been addressed and recommend that RI4370 is closed.

### **Recommendations**

- Recommendation 1 – ONR issues LI502 to agree to the withdrawal of HALES OR-20
- Recommendation 2 – ONR writes a letter to Sellafield stating its regulatory expectations regarding HAL stocks management going forward.
- Recommendation 3 – ONR closes RI4370.

OFFICIAL

## OFFICIAL

### LIST OF ABBREVIATIONS

ALARP	As low as reasonably practicable
AGR	Advanced Gas(cooled) Reactor
AR	Assessment Report
CNS	Civil Nuclear Security (ONR)
EA	Environment Agency
EMM	Enforcement Management Model
FY	Financial Year
HAL	Highly Active Liquor
HALES	Highly Active Liquor Evaporation and Storage
HAR	Highly Active Raffinate
HAST	Highly Active Storage Tank
HOW2	(Office for Nuclear Regulation) Business Management System
IN	Improvement Notice
INSA	Independent Nuclear Safety Assessment
LC	Licence Condition
ONR	Office for Nuclear Regulation
RGP	Relevant Good Practice
SAP	Safety Assessment Principle(s)
SFAIRP	So far as is reasonably practicable
TAG	Technical Assessment Guide (ONR)
LI	Licence Instrument
MPS	Master Production Schedule
MSC	Management Safety Committee
NSC	Nuclear Safety Committee
ODM	Operational Decision Making
OR	Operating Rule
PAR	Project Assessment Report
PMP	Plant Modification Proposal
RI	Regulatory Issue
SFM	Spent Fuel Management
SL	Sellafield Limited
teU	Tonnes Uranium Equivalent
THORP	Thermal Oxide Reprocessing Plant
TR&S	THORP Receipt and Storage
WANO	World Association of Nuclear Operators
WVP	Waste Vitrification Plant

OFFICIAL

**OFFICIAL**

**TABLE OF CONTENTS**

1	PERMISSION REQUESTED .....	7
2	BACKGROUND .....	7
3	ASSESSMENT AND INSPECTION WORK CARRIED OUT BY ONR IN CONSIDERATION OF THIS REQUEST .....	10
4	MATTERS ARISING FROM ONR'S WORK.....	10
5	CONCLUSIONS .....	19
6	RECOMMENDATIONS.....	20
7	REFERENCES .....	21
8	REVIEW, LEARN, IMPROVE .....	23

**Figures**

Figure 1: HAL Stocks Specification LI793 Limits Graph

## OFFICIAL

### 1 PERMISSION REQUESTED

1. In accordance with its arrangements under Licence Condition (LC) 22(1), “Modification or experiment on existing plant”, of Schedule 2 of site licence 103, Sellafield Limited (SL), the licensee, has requested (Ref 1) the Office for Nuclear Regulation’s (ONR) “agreement” to withdraw the Highly Active Liquor Evaporation and Storage (HALES) plant’s Operating Rule (OR) 20, in accordance with a Category B Plant Modification Proposal (PMP) and replace it with a new managerial control system. The following safety case documentation was submitted for consideration by ONR:
  - [REDACTED] – Plant Modification Proposal – Withdrawal of HALES operating rule 20 plus associated appendices (MSC meeting 235(Special)). (Ref 1)
  - HALES MSC P(14) 073 – Operating Rules for Highly Active Liquor Stock Reduction, October 2014 (MSC 174) (Ref 2)
  - HALES MSCP(17) 027 – Proposed Options for Operating Rules 20 with ALARP justifications, March 2017 (MSC Meeting 235(Special)) (Ref 3)
  - HALES Master Production Schedule 2016/17 (Ref 4)
  - HALES Inventory Visual Management Board Summary (Ref 5)
  - INSA Certificate 3047 (Ref 6)
  - MSC 174 Minutes (Ref 7)
  - Special MSC 235 Minutes (Ref 8)
  - NSC 132 Minutes (Ref 9)
2. No existing licence instruments have been identified for amendment or revocation as a result of this agreement.
3. An “agreement” is the use of a derived power offered to ONR through the wording of licensee’s own arrangements. Derived powers enable ONR to grant permission to licensee activities without use of the primary powers provided by the licence conditions. Under its arrangements, SL needs “agreement” from ONR to implement this modification to its OR.
4. This Project Assessment Report (PAR) has been written to present the basis for the permissioning decision made by ONR. The rationale for regulating this permission through a PAR and Licence Instrument (LI) has been agreed with the Superintending Inspector and the scope is captured in the Sellafield Sub-Division Objective 4 task sheet (Ref 10).
5. This report has been prepared in accordance with the requirements of HOW2 (Ref 11).

### 2 BACKGROUND

#### 2.1 FACILITY INFORMATION

6. The HALES facility broadly consists of two areas: Evaporation and Storage. The Evaporation element consists of three evaporators A, B and C (with a fourth evaporator, D, currently under construction). The Storage element comprises of a number of High Activity Storage Tanks (HASTs) divided into ‘old side’ (essentially quiescent) and ‘new side’ (in active operations). Parts of the HALES facility were constructed in the 1950’s and have since been extended and modified over the subsequent years and so comprise different generations of HASTs and evaporators.
7. HALES supports both Thermal Oxide Reprocessing Plant (THORP) operations and Magnox reprocessing operations by receiving Highly Active Raffinate (HAR) into buffer storage. The volume of HAR is reduced through evaporation (low temperature boiling

OFFICIAL

## OFFICIAL

at sub-atmospheric pressure), resulting in a concentrated liquor known as Highly Active Liquor (HAL). The HAL is held in interim storage within the HASTs prior to it being transferred to the Waste Vitrification Plant (WVP) where it is incorporated in glass within a high integrity welded stainless steel container suitable for long term storage and disposal.

8. The safe interim storage of HAL within the HASTs is of key nuclear safety importance to the public and workforce. Due to the very high radioactivity of HAL, it is self-heating and generally requires active cooling to remove the excess heat.

### 2.2 REGULATORY BACKGROUND

9. SL currently controls the amount of HAL stored within the HASTs through an Operating Rule (OR). This OR (OR-20) acts as a strategic, high level control to ensure ongoing reductions in HAL stocks each year as part of the licensee's demonstration to ONR and other stakeholders that it is minimising its HAL stocks So Far As Is Reasonably Practicable (SFAIRP). OR-20 was introduced in 2015 as the prime mechanism for the control of HAL stocks at Sellafield (a role previously performed through ONR's HAL stocks Specification (LI793)).
10. OR-20 states: *"Over a one year period, the total HAL input to Highly Active Liquor Evaporation and Storage (HALES) facility resulting from reprocessing operations must be less than the total HAL output from HALES as a result of Vitrification Operations."* The OR was intended to deliver year-on-year reductions in the HAL stocks at Sellafield and utilises the key principles developed during the production of the HAL stocks specification. OR-20 is measured in teU (tonnes of spent fuel equivalent) as this reflects the hazard potential of the HAL better than a straightforward volume measurement.
11. In November 2013 there was an incident at the Waste Vitrification Plant (WVP) production line 3 which resulted in widespread contamination leaving the line inoperable for 11 months whilst remediation activities were undertaken. This incident resulted in ONR taking formal enforcement action by issuing an Improvement Notice (IN) (Ref 13) which has led to the required improvements to the Waste Vitrification Plant being implemented in 2014. As a result of WVP Line 3 being offline this reduced the vitrification rates and SL identified that it would have to cease reprocessing operations to comply with the HAL Stocks Specification. SL presented a case to ONR demonstrating that stopping reprocessing operations would lead to a significant increase in risk on site and proposed to implement OR-20 as a replacement for the specification. ONR assessed and accepted this case in 2015 (Ref 12).
12. Since its introduction in 2015 SL has successfully complied with OR-20 achieving reductions in HAL stocks in Financial Year (FY) 14/15, 15/16, and 16/17. However at the start of the FY16/17 SL projected that whilst it would comply with OR-20 this would only be by a small margin (Ref 14) and vitrification would not exceed reprocessing until late in the year. This was due to the relatively low levels of HAL stored on site, compared to historical values, and the operational variability in the performance of upstream reprocessing facilities, and the downstream vitrification facility resulting in less regulatory confidence that SL could comply with the OR than in previous years.
13. To address this lack of regulatory confidence and the increased likelihood of non-compliance with OR-20 I raised a level 2 regulatory issue (Ref 15). To build confidence in SL's approach I undertook an initial review of its HAL stock projections. I determined that it was appropriate to allow them to proceed as planned as I noted that SL could stop reprocessing operations following the site outage later in the year to ensure compliance. In addition to this I implemented an enhanced regulatory monitoring

OFFICIAL



## OFFICIAL

regime to enable me to closely monitor performance and assure myself SL was doing everything reasonably practicable to comply with the OR.

14. In the first part of the financial year SL broadly met its projections for reprocessing and vitrification performance. However during the site outage the WVP line 3 rebuild was delayed as additional equipment needed replacing. As a result of this, in line with ONR expectations, SL explored the possibility of delaying reprocessing operations following the site outage. This was captured in an Operational Decision Making (ODM) process (Ref 16) which ONR assessed (Ref 17).
15. This assessment concluded that whilst SL was managing its HAL stocks appropriately, OR-20 as implemented was not working as intended. The key reasons behind this were that compliance activities were being managed at a facility level and did not clearly reflect how the licensee manages safety within the stream as a whole. This meant OR-20 could drive inappropriate behaviours to achieve compliance that were not in the best interest of safety on the site as a whole; through the inappropriate use of buffer tanks leading to the repeated transfer or liquors; early cessation of reprocessing resulting in prolonging the length of time HAL is being stored on site overall and; targeting HAL with high teU equivalence but lower activity and heat generation for feeding to WVP to increase vitrification rates but reducing the rate of risk reduction.
16. To prevent these actions driving an increase in risk on site ONR wrote a letter to SL requesting that it replaces OR-20 with a new control system in line with the position published in the PAR supporting the implementation of OR-20 (Ref 18). The letter also stated that so long as SL continued to demonstrate that it was managing its HAL stocks SFAIRP no formal enforcement action would be taken should it breach OR-20 late in the year. SL subsequently achieved compliance with OR-20.

### 2.3 LICENSEES PROPOSAL

17. In line with the ONR letter (Ref 18), SL is proposing to withdraw HALES OR-20 and replace it with a new operational control system. In support of this safety case modification SL has submitted the following documentation to ONR:
  - [REDACTED] – Plant Modification Proposal – Withdrawal of HALES operating rule 20 plus associated appendices (MSC meeting 235(Special)). (Ref 1)
  - HALES MSC P(14) 073 – Operating Rules for Highly Active Liquor Stock Reduction, October 2014 (MSC 174) (Ref 2)
  - HALES MSCP(17) 027 – Proposed Options for Operating Rules 20 with ALARP justifications, March 2017 (MSC Meeting 235(Special)) (Ref 3)
  - HALES Master Production Schedule 2016/17 (Ref 4)
  - HALES Inventory Visual Management Board Summary (Ref 5)
  - INSA Certificate 3047 (Ref 6)
  - MSC 174 Minutes (Ref 7)
  - Special MSC 235 Minutes (Ref 8)
  - NSC 132 Minutes (Ref 9)
18. The PMP (Ref 1) identifies this as a category 'B' modification within SL's arrangements, because it withdraws an OR. The PMP also details the rationale for withdrawing the OR, the replacement control system, the updates to documentation required and how this will be implemented on plant.
19. The MSC Paper (Ref 2) details the rationale for the introduction of OR-20 and this has been included as background information in support of its proposal. The options review

OFFICIAL

## OFFICIAL

paper (Ref 3) details the options the licensee considered in developing the new control system for HAL stocks and provides the rationale why the proposal is considered to be the best option.

20. The HALES Master Production Schedule (MPS) (Ref 4) and HALES management board summary (Ref 5) details the licensee's performance for the past 12 months and projections and priorities for managing HAL stocks to zero. References 6 – 9 detail the independent assessment and committee reviews undertaken on this proposal as part of the licensee's due process.

### **3 ASSESSMENT AND INSPECTION WORK CARRIED OUT BY ONR IN CONSIDERATION OF THIS REQUEST**

21. Throughout my engagements with the Licensee to carry out an assessment of SL's safety case I have:

- Performed sampled assessments of SL's suite of safety case documents supporting the modification
- Reviewed a number of the reports produced by SL's Independent Nuclear Safety Assessment (INSA) team and Internal Regulators
- Held meetings and discussions to feed back our assessment findings and allow SL to present revised proposals.
- Reviewed the current status of the facility
- Assessed the Licensee's strategy for HAL stock management going forwards.

22. In line with ONR's normal process, further supporting documentation was requested by ONR, which is referred to where appropriate within this PAR.

23. I note that SL has subjected the suite of documents submitted to a prescribed checking and approval process. I have taken due note of comments from its INSA (Ref 6) and I note that SL's due process has been followed in that the safety case documentation was approved at the relevant Management Safety Committee (MSC) and Technical committee (Ref 8). In addition to this it was presented to the Nuclear Safety Committee for acknowledgement (Ref 9).

#### **3.1 CONSULTATION WITH OTHER DEPARTMENTS**

24. I have consulted with the Environment Agency, which has confirmed that it has no objection to the issuing of a licence instrument in this matter (Ref 19).

25. I have liaised with ONR civil nuclear security, which has confirmed that it has no objection to the issuing of a licence instrument in this matter (Ref 20).

26. The nature of this proposal does not relate to the transport or safeguarding of nuclear material, therefore I have not liaised with ONR's inspectors within these areas.

### **4 MATTERS ARISING FROM ONR'S WORK**

27. For this assessment regulatory effort has focussed on two aspects, first the necessity for changing OR-20 given it was only introduced two years ago, and secondly, to ensure the new proposed arrangements are appropriate and will be effective in minimising risks SFAIRP.

#### **4.1 CURRENT STATUS AND POSTION**

OFFICIAL

OFFICIAL

28. HAL stocks at Sellafield now stand at the lowest levels since the 1960's (Ref 21) and the great majority of the legacy HAL has now been vitrified. Indeed it is worth noting that HAL stocks now around the 'steady state' region defined by the old specification LI793 (see figure 1) (Ref 22). The risk from HAL primarily arises from its high radioactivity which means the liquor is self-heating and needs continuous cooling. The HAL stored in each of the HASTs is at differing concentration and heat loading meaning that upon a loss of cooling the contents of each HAST will take heat up at differing rates. If there is sufficient heat generation in a HAST its contents could eventually boil which could lead to a significant release of radioactivity. At present SL calculates that the contents of four HASTs has sufficient heat generation to enable boiling to occur.

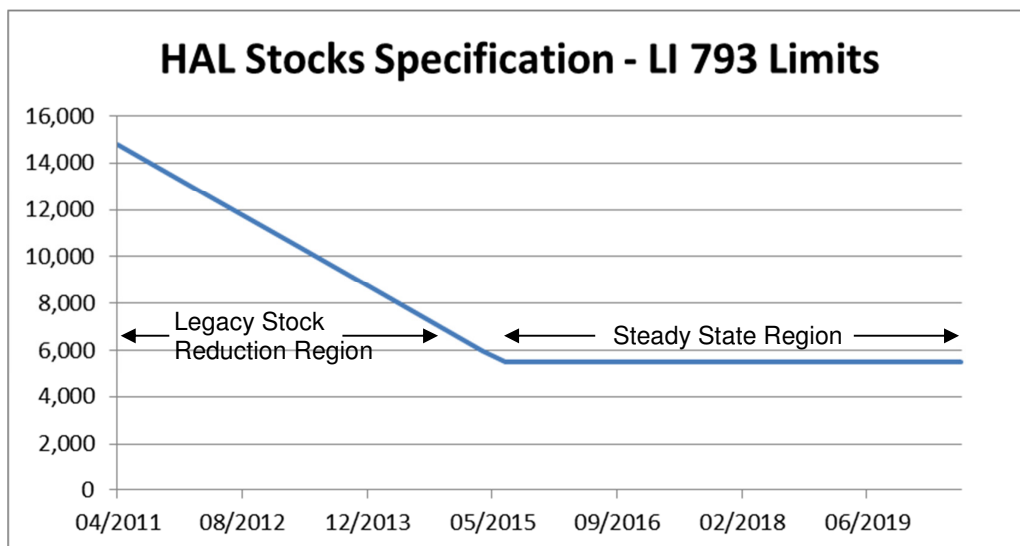


Figure 1 – HAL Stocks Specification LI793 Limits Graph

29. ONR's expectation is that SL should be targeting its vitrification campaigns by prioritising the HAL that presents the highest risk. This means that the reduction in risk from HALEs will happen in two phases firstly when all the HAL that is capable of boiling is fully vitrified as this significantly reduces the consequences of a loss of cooling fault and secondly when all the HAL within HALEs is vitrified.
30. At present the HAL being stored is generally that which has been reprocessed over the past few years with only a small amount of old legacy 'Butex' HAL left. This 'Butex' waste was originally scheduled for vitrification in 2012 but since it is relatively low hazard SL elected instead to vitrify more hazardous oxide fuel derived HAL as this was a better use of WVP in line with regulatory expectations (Ref 23). On the basis that prioritising the vitrification of this 'Butex' HAL would have resulted in less risk reduction than by vitrifying recently produced HAL I am satisfied this decision was and still is appropriate.
31. The prime focus of the HAL stocks specification and OR-20 was to drive SL to eliminate its legacy HAL stocks and buffer store the minimum amount of HAL necessary to ensure stable operation of the reprocessing, evaporation and vitrification activities. Since the only legacy HAL left is now this 'Butex' HAL, which presents less risk in storage than recently produced HAL and would have been vitrified in 2012 as described earlier, I am satisfied that for the purposes of the HAL stocks specification and OR-20 the higher hazard legacy HAL stocks have now been eliminated. Therefore I am satisfied that SL is now operating in a steady state phase until reprocessing operations are completed when HAL stocks will reduce again.

OFFICIAL

## OFFICIAL

32. Since the legacy wastes had been stored in HALES for a prolonged period of time (in some cases up to 50 years) it had undergone significant in-tank evaporation which increased the waste concentration. As WVP can only process HAL at a fixed volumetric flowrate and the mass that can be safely vitrified in each container is fixed, if the feed is more concentrated it will take less time to produce each container, thus increasing throughput. Since there is now only limited in-tank evaporation this degree of concentration has not had time to occur meaning that it now takes WVP longer to produce each container than was the case a few years ago.
33. This reduction in WVP throughput when coupled with the recent high performance of the reprocessing facilities meant that during the 2016/17 financial year SL was projecting only a narrow compliance with OR-20. This scenario is likely to be repeated over the next few years as reprocessing operations draw to a close with oxide reprocessing scheduled to cease in November 2018 and Magnox in around 2020/21 (depending on the performance of the Magnox reprocessing facility). Since there is now a clearly defined amount of fuel left to be reprocessed (~2250teU) (Ref 5) there is no prospect of HAL stocks increasing significantly from current levels.
34. The converse side of this is that since vitrification and reprocessing operations are now broadly balanced it means that the HAL stocks will not reduce significantly until reprocessing operations are completed in line with the regulatory expectation detailed within the HAL stock specification. On this basis the regulatory focus is shifting from requiring SL to reduce its HAL stocks to ensuring a timely completion of reprocessing operations, and hence to accelerate the elimination of HAL stocks in totality.
35. When OR-20 was introduced there was still a significant amount of legacy HAL to be vitrified (approx. 20% of HAL stocks at the time) (Ref 24) which drove the necessity for continuing the 'year on year' reductions. Since these legacy wastes have now been vitrified, except for the 'Butex' HAL discussed earlier, it is unreasonable to expect continued significant year on year reductions. When OR-20 was being developed this issue was identified and in order to incorporate it the 'vitrify more than your reprocess' philosophy was formalised as OR-20. This provided the flexibility for large reductions for the first few years followed by small reductions during the steady state operations period and finally the quick reduction following the cessation of reprocessing.
36. Recognising that HALES and the rest of Sellafield site is now entering a significant period of change an OR was selected over another specification as this provided additional flexibility to modify the OR as necessary.

#### 4.2 NECESSITY FOR MODIFICATION

37. Over the past 12 months, the first period in which SL was operating fully in the steady state region, OR-20 has been driving SL to consider taking actions to comply which not in the best interests of overall nuclear safety on site. In trying to comply with OR-20 SL considered targeting HAL with higher teU that is easier to vitrify but which presents a lower hazard and risk when stored within the HASTs to increase the teU output at WVP. SL also considered buffer storing HAR at the reprocessing plants and at the vitrification plant in order to minimise the inventory within HALES. However this is a deviation from the normal process and is not considered to be good practice as HAL could be long term stored in tanks less suitable than the HASTs or require multiple unnecessary transfers. The key concern with this being that each time HAL is transferred it generally involves the use of a steam ejector resulting in the stored volume of HAL increasing by around 10%. This increased volume means that each time the HAL is transferred it increases the time taken to vitrify at WVP by around 10% which will further exacerbate these problems.

## OFFICIAL

## OFFICIAL

38. At the wider stream level SL stated that if it reduced its reprocessing operations to ensure compliance with OR-20 this would lead to an increase in risk on site. For the Magnox reprocessing stream any delays to operations increases the likelihood that SL will not be able to reprocess the remaining Magnox fuels as the facility is old and delays to production increase the likelihood of critical components failing. Any such failure would require the remaining Magnox fuel to be conditioned to make it suitable for long term storage. The development of a Magnox fuel conditioning facility would be technically challenging, and take significant time and cost making it unlikely to be an ALARP solution in this instance.
39. For Oxide reprocessing the balance of the argument is different as the spent fuel is more chemically stable than Magnox meaning it can be safely stored underwater for far longer. Therefore there is less direct nuclear safety risk associated with delays to oxide reprocessing. However I note SL's site strategic plan is to use the THORP Receipt and Storage (TR&S) pond to store all future Advanced Gas Reactor (AGR) fuels. This pond is currently storing a significant quantity of pH 7 sensitised fuels and failed fuel which will not be suitable for long term storage. Therefore this fuel will need to be reprocessed to ensure it can be safely disposed of in due course. SL currently estimates that under its current plans, the reprocessing of this fuel will be completed in late 2017.
40. SL states that based on current AGR lifespan projections it met the minimum criteria for capacity in TR&S pond in late 2016. However it would like to build up a contingency of a further 600teU such that it could then support future AGR life extensions requests from EDF Energy (Ref 16) in line with UK government policy. Whilst the life extension of AGRs falls outside the ALARP balance for SL it does nevertheless form a key strategic factor for the UK as a whole, so a small increase in risk from HAL could be tolerated within ONR's decision-making processes should the wider strategic drivers be strong. Irrespective of the strategic case, I support SL's decisions to build up contingency as it is good practice to have additional space available in the pond to enhance fuel monitoring and fault recovery operations going forwards giving a safety benefit. If SL prematurely stopped or reduced oxide reprocessing operations to reduce HAL stocks it would jeopardise this strategy and on this basis I am satisfied that the licensee's decision not to delay oxide reprocessing is reasonable at this time.
41. Throughout the course of 2016/17 ONR undertook enhanced monitoring of the HAL stocks through regular meetings and telephone conferences to ensure that SL acted at all times in the best interest of nuclear safety. I am satisfied this is the case, however had ONR not intervened then SL may have taken an inappropriate action. As part of these interventions ONR advised SL to ensure it adequately documented its decision making process throughout the year, as in the event that it failed to comply with OR-20 ONR would investigate to ensure SL was acting in the best interests of nuclear safety at all times. If this indicated that SL had not done so then this would be a key consideration in the application of the Enforcement Management Model (EMM) to determine what enforcement action would be appropriate.
42. In response to this SL used its ODM process to review its current strategy for managing its HAL stocks. ONR assessed this ODM (ref 17) and concluded that OR-20 was not functioning as intended as it was driving the licensee to consider taking inappropriate actions potentially leading to an increase in risk on site and that this was likely to remain the case going forwards. Therefore ONR wrote to SL asking it to develop an improved means for the control of its HAL stocks. ONR stated that these improved means of control needed to demonstrate more appropriately how the SL will comply with its duty under site licence condition 32 to minimise, so far as reasonably practicable, the total quantity of HAL accumulated on the site at any time.

OFFICIAL

## OFFICIAL

### 4.3 NEW ARRANGEMENTS

43. SL describes the options it considered to replace OR-20 in an options review paper (Ref 3). In this paper SL identifies six potential options to control its HAL stocks going forward:

1. Do Nothing - Leave OR-20 as is
2. Modify OR-20 to have a longer compliance period
3. Replace OR-20 with a new OR defining a set limit for HAL stocks to be achieved when THORP operations stop
4. Replace OR-20 with a new OR defining a set limit for HAL stocks to be implemented in 2017
5. Replace OR-20 with a new OR for HAL stock management across SFM
6. Withdraw OR-20 and replace with company arrangements to manage HAL stocks across SFM.

44. Out of these options SL concluded that its preferred solution was option 5 as this actually reflected how HAL stocks are controlled on site and retained the formal link back to the safety case. SL proposed the following words for the replacement OR-20:

*“The Spent Fuel Management (SFM) Director must critically review the strategic aims, production performance and production targets of the SFM Value Stream on a quarterly basis to ensure HAL stocks are maintained ALARP”*

SL states that this critical review would be based upon the ODM process it has been using for the past 6 months to document its rationale and decision making process on how to best manage the production throughputs at WVP, HALES and the reprocessing plants. However following an NSC challenge that the new OR didn't meet company or ONR guidance (Ref 26) on ORs, primarily as it has not been derived from the safety case, SL reconsidered its decision. On this basis SL proposed to implement the same controls but utilise these as arrangements under LC32(1) as this provided a better fit.

45. I have reviewed these options and in my opinion they can be divided into three categories: 1. Modifying Existing OR-20; 2. Replicating the previous specification in an OR and; 3. Using arrangements similar to the ODM to review HAL stocks at a stream level.

46. The first category of options reviewing modifications to relax the existing OR would not be acceptable as they do not address the root cause of the problem meaning a recurrence of the issues this year would be likely. Given that relaxing the OR would not make any significant improvement to safety on site I would not accept such a proposal as the OR in its current format would be better.

47. From a regulatory perspective I am satisfied that replicating the old specification limits is not appropriate as whilst the HAL stock levels are broadly stable they fluctuate as the reprocessing and vitrification facilities have outages at different times. To take account of this SL suggests increasing the limit or only enforcing the limit once oxide reprocessing operations are completed in late 2018. I do not think either of these options are appropriate as they represent a significant relaxation of the existing arrangements and would not provide any regulatory confidence that SL is managing its HAL stocks SFAIRP.

OFFICIAL



## OFFICIAL

48. I am satisfied that the solution SL selected as its preferred option is the most appropriate as this is looking to control HAL stocks at a stream-level minimising the overall risk across all relevant facilities rather than introducing local limits which could potentially drive inappropriate behaviours. I am satisfied that this is being managed at a stream level through the SFM director who is accountable for demonstration that the overall risk from his facilities is being managed SFAIRP.
49. SL's original intent to make these arrangements an OR was to enable ONR to retain the same degree of regulatory control as it currently has. However, when challenged by the NSC, this view was altered as it was using an OR in a different manner to that which they were originally intended which could lead to problems in the future by confusing strategic drivers with direct nuclear safety risk. Whilst the current version of OR-20 was not derived from the safety case it did provide robust regulatory control as should HAL stocks increase over the year it would be a clear breach of the nuclear site licence. Given the proposed replacement OR would require SL to carry out reviews it would only enable ONR to take enforcement action should these reviews not occur. On this basis I agree with the view of the Sellafield NSC that there is little benefit from making the new arrangements an OR.
50. On this basis I am satisfied that SL has developed an appropriate mechanism to control its HAL stocks going forward and am pleased that this is being managed at the stream level. I am satisfied that the SFM director is the correct person within the licensee organisation to ensure HAL stocks are being managed SFAIRP as they are responsible for performance of the all the facilities within the HAL production and disposal stream. This represents an improvement compared with the previous control systems and organisational arrangements at Sellafield where the waste and reprocessing facilities reported to different directors.

### 4.3.1 REGULATORY REGIME

51. Since this modification represents a reduction in direct regulatory control I have considered whether this is appropriate. In order to do this there are several aspects to be considered, firstly, is a prescriptive regulatory regime still the most effective for regulatory control of HAL stocks or would the proposed goal setting regime be more appropriate. Secondly what other controls are in place to limit the accumulation of HAL on site and are the combination of these sufficient to ensure adequate regulatory oversight and control.
52. Prescriptive regulation is most effective when used to direct actions in a specific area that must be done to drive a necessary improvement or to maintain safety. This approach is generally used when there is a specific risk that needs managing and is of such importance it takes priority over other competing risks. In contrast a goal setting approach works by setting a broader target for the licensee to demonstrate i.e. demonstrate that risks are reduced SFAIRP. This approach is generally used where there is a complex risk environment where a number of competing risks and hazards need to be balanced to ensure the optimum solution is delivered.
53. When the first HAL stock specification was introduced in 2001 the risk environment surrounding spent fuel management at Sellafield was very different to that present today. The HAL stocks were approximately four times higher, there was no defined end point for oxide reprocessing, and Sellafield was not appropriately prioritising its vitrification operations. In this instance the use of primary powers to compel the licensee to place more priority on reducing its legacy wastes was entirely appropriate and has proven to be effective. However considering that this legacy waste has now been safely vitrified and there is evidence that the continued use of a prescriptive

## OFFICIAL

## OFFICIAL

approach is driving inappropriate behaviours, potentially leading to an increase in risk on site, the continued use of prescriptive regulation is clearly not appropriate.

54. Since the implementation of the HAL stocks specification and latterly OR-20 the risk environment surrounding spent fuel management at Sellafield has changed significantly. SL has completed the vitrification of its legacy HAL stocks leaving only recently produced HAL (except for the 'Butex' liquors discussed in Section 4.1). There are now clearly defined and relatively small amounts of fuel left to reprocess (approximately 1500teU Magnox and 750teU Oxide (Ref 5)) meaning HAL stocks cannot return to the excessive levels seen a few years ago. Since the risk from HAL primarily comes from a loss of cooling fault leading to the HAL boiling, and significant activity release, this means that the risk from HAL will be reduced in two phases. Firstly once all the high heat generating HAL is vitrified meaning no HASTs can boil, and secondly once all HAL has been safety vitrified.
55. If SL delayed reprocessing operations this would lead to high heat generating HAL persisting for longer placing additional demands on the cooling systems at HALES. It is worth noting at the moment SL has an Improvement Notice on its cooling towers at the HALES facility relating to its management of Legionella which further complicates the risk environment surrounding HAL stocks.
56. Considering these aspects alongside the potential impact of delays to reprocessing operations described in section 4.2 I am satisfied that the risk environment at HALES is highly complex; since there is no longer one risk that dominates over the others but instead a number of risks that need to be balanced in unison to minimise the overall risk. This clearly indicates that a goal setting approach is likely to be the most effective regulatory regime. On this basis I am content that the new arrangements represent the most appropriate way for SL to control its HAL stocks going forward.

### 4.3.2 REGULATORY CONTROL

57. This leads to the second aspect I need to consider in making a judgement on the applicability of withdrawing OR-20 and implementing the new control system by considering whether ONR will retain adequate regulatory control of the HAL stocks. The key legal requirement on SL to manage its HAL stocks SFAIRP is detailed by Licence Condition (LC) 32. This states that:

*"The Licensee shall make and implement adequate arrangements for minimising so far as is reasonably practicable the rate of production and total quantity of radioactive waste accumulated on the site at any time and for recording the waste so accumulated"*

This provides a very clear legal requirement that SL must adequately control its HAL stocks SFAIRP and failure to do so would result in a breach of its site licence conditions and open the prospect of formal enforcement actions. However demonstrating a clear breach of this requirement may not be straightforward, especially so with the complex risk environment surrounding HAL stocks. So whilst this provides a clear regulatory expectation, relying on LC32 alone would be a relaxation of regulatory control.

58. The other area which provides strong regulatory control of HAL stocks is LC23, on operating rules. OR-20 formed part of suite of ORs in HALES that define the safe operational envelope of the facility. As part of this suite there are two other ORs that relate to the overall HAL stocks.

OFFICIAL



## OFFICIAL

59. The first is OR-26 which limits the total volume of HAL that can be stored within the HASTs. The original HAL stocks specifications were based on volume rather than tonnes of fuel equivalent (teU) as this represents the measure used on plant. The later versions of the specification switched to teU as this better reflects the hazard and risk of the HAL. The liquor stored in the HASTs varies significantly in heat generation, concentration and solids contents. The HASTs with the highest teU content typically have the highest heat generation and concentration and represent the highest risk however this kind of liquor is only present in a small number of the HASTs. The other HASTs typically contain liquors derived from washing out the evaporators and other vessels within HALES which are low heat generating but have high solid content. These washout liquors now make up a large proportion of the volume stored within the HAST but are significantly less hazardous than the reprocessing derived liquors.
60. At present the HALES facility is operating towards the upper end of its usable volume so in the event that WVP underperforms there is not enough capacity in HALES for HAL stocks to significantly increase. I have reviewed SLs conservative projections which indicate that based on the current volume limits HAL stocks can only increase by 9.6% (Ref 25). This provides a firm backstop to ensure HAL stocks won't significantly increase and gives a similar degree of regulatory control as is presently available under OR-20.
61. The other OR that is relevant to HAL stocks is OR-31 which states that if throughput at WVP falls below the value necessary to keep HALES compliant with OR-26 a critical review must be undertaken. The purpose of this review is to determine if it is better for reprocessing operations to be delayed or if some of the wash liquors stored in HALES should be concentrated in one of the Evaporators. At present there are three evaporators available within HALES; however all of these are close to end of life and necessary to support reprocessing operations and have very limited spare capacity making this option undesirable. A fourth evaporator, Evaporator D, is currently undergoing inactive safety commissioning and due to enter active operations in late 2017. Evaporator D has been specifically designed to process this type of liquor and has sufficient capacity to fully support both reprocessing facilities and processing other liquors such as these dilute washout ones.
62. As part of Sellafield Limited's arrangements any modification to an OR requires regulatory agreement prior to implementation. Given that the new arrangements being proposed will not be an OR this means that the licensee could modify these without regulatory agreement. Therefore ONR will continue to closely monitor HAL stocks at Sellafield to ensure that the licensee manages its HAL stocks appropriately and to ensure no modifications are made without regulatory consideration.
63. Overall I am satisfied that through the combination of LC32, OR-26, and OR-31 ONR has adequate regulatory controls in place to ensure SL is adequately managing its HAL stocks and retains suitable and sufficient options to take enforcement action if necessary.

#### 4.4 IMPLEMENTATION ARRANGEMENTS

64. In determining whether the licensee's new proposed arrangements are adequate I need to consider the implementation and ongoing monitoring arrangements that have proposed.
65. SL describes the underpinning arrangements that support the new HAL stocks control system in the PMP (Ref 1). SL states that the purpose of the "Value stream HAL stocks review ODM" is to ensure that the appropriate SL Director(s) critically review the strategic aims, production performance and production targets of the reprocessing

## OFFICIAL

## OFFICIAL

facilities, waste vitrification plant and HALES facility to ensure HAL stocks are maintained SFAIRP and states that this will be delivered through its operational decision making process.

66. I have reviewed the SL procedure for conducting ODMs and I am content that this is an appropriate process for demonstrating control of HAL stocks. The process is based upon guidance produced by the World Association of Nuclear Operators (WANO) and I am satisfied that this constitutes relevant good practice. SL states the function of the ODM is to review the throughput rates associated with the spent fuel management stream and determine if the current arrangements manage risks SFAIRP or if other actions are necessary. I am content that the use of the ODM process as described meets the regulatory expectation detailed in the letter written to Sellafield in December 2016.
67. SL has stated that for the ODM to be quorate it must contain the following people: The SL director(s) responsible for HAL stock management (currently the SFM director), The Head of the HALES operating unit, The Head of the WVP operating unit, An Independent person, A facilitator and at least one of the Heads of the Magnox or THORP operating units. I am satisfied that this list contains all the key internal stakeholders associated with the management of HAL at Sellafield and that between them they should have a complete picture of the key issues affecting the stream. I have confirmed that the terms of reference for the independent member for the ODM ensure that this person is suitably senior and empowered to challenge heads of operating units and directors as may be required (Ref 27). I am pleased that the SFM director has been explicitly stated as the person accountable for the overall management of HAL as in the past this clarity has been lacking. This new arrangement should foster a more collaborative approach between the facilities within the HAL value stream and prevent an inappropriate focus on minimising each individual facility's risk at the expense of the overall stream.
68. I have reviewed the licensee's proposed quarterly periodicity for the ODMs with ad-hoc meetings should a significant breakdown occur at one of the facilities. I am satisfied that this frequency is reasonable so long as the reprocessing and vitrification targets are broadly being met as this provides a regular forum to discuss issues around HAL stocks and future targets. I agree with SL that ad-hoc meetings should be arranged as necessary following breakdowns or events that result in significant deviation or modification to the agreed annual targets as this is when the demonstration that it managing its HAL stocks SFAIRP is most important.
69. I have assessed the ODM (Refs 17&18) undertaken in late 2016 where SL was considering if it was appropriate to restart its reprocessing operations and I am satisfied that the process works as claimed by the licensee. I am satisfied that the ODM adequately identified and discussed the key strategic drivers and appropriately balanced these against the nuclear safety risk associated with storing HAL. This provides regulatory confidence that the new control arrangements should be effective for the licensee to control its HAL stocks going forward and to document the licensee's rationale that its HAL stocks are being maintained SFAIRP. I have also noted a clearer focus on the 'broad ALARP' position from the licensee since this ODM process began; it is now actively and consciously managing the risks at a stream level rather than concentrating on specific risks within each facility. I am encouraged to see this change in attitude as it is important to optimise the risks across the spent fuel management stream until the cessation of reprocessing.
70. In summary I am satisfied that the licensee's proposal to implement the new arrangements is adequate. In addition to sharing the ODM reports SL will continue to provide ONR with an annual report on HAL stocks detailing the performance for the

OFFICIAL

## OFFICIAL

previous 12 months and providing its projections for the next 12 months. ONR will continue to monitor the HAL stocks through the monthly HAL stocks update letter and at routine regulatory meetings. This level of monitoring remains the same as has been the case since the specifications were first introduced in 2001. In the event that ONR observes trends that cause regulatory concern we will challenge SL to explain why its position is acceptable and if this does not adequately address our concerns we will adopt an appropriate enforcement response (e.g. raise a regulatory issue requiring the licensee to address specific actions). In addition to this ONR will continue to undertake routine compliance and system based inspections at the reprocessing and vitrification facilities.

### 4.5 FORWARD PROJECTIONS

71. The final aspect to consider in forming an opinion on the adequacy of the licensee's proposal is to assess its forward projections for HAL stocks to gain confidence that it is actively pursuing and managing all available opportunities to reduce risks on site. I note that the licensee has two forward projections for HAL stocks on site, firstly a baseline plan which details the best estimate for HAL stock elimination and secondly a more ambitious plan to expedite this process.
72. I have reviewed the baseline plan and I am satisfied that this is well developed and represents a realistic projection on HAL stocks going forward. The baseline plan is based on typical vitrification throughputs and shows that it will take around 7-8 years to vitrify the current HAL stocks and the fuel yet to be reprocessed. I have also reviewed HALES management's optioneering assessment that seeks to identify opportunities to reduce risks associated with HAL stocks. This study identifies the potential to eliminate HAL stocks by 2022 based upon achieving improved and sustained high performance from WVP. I have discussed this with the head of WVP who is confident the new performance management monitoring systems will deliver improvements. I am encouraged to see that SL is actively investigating all opportunities to reduce and eventually eliminate its HAL stocks and ONR will continue to monitor the performance of these plans until these facilities have been safely decommissioned.

## 5 CONCLUSIONS

73. This report presents the findings of ONR's assessment of the SLs proposals to withdraw HALES OR-20 and replace it with new arrangements to control HAL Stocks. As part of this I have concluded that the modification is necessary as OR-20 has been driving the licensee to consider taking inappropriate behaviours by focussing too much on a minimising the risk from HAL at the expense of other risks on site. Considering the complex risk environment around the spent fuel management facilities at Sellafield I am content that a prescriptive regulatory regime is no longer an appropriate means of regulatory control and judge that using a goal setting regime is more appropriate and necessary.
74. I have reviewed the licensee's proposed new control system for managing its HAL stocks and I am content that this is reasonable and will lead to a reduction of risk on site and provides the flexibility necessary for SL to eliminate its HAL stocks as soon as reasonably practicable. I am satisfied that the licensee is actively pursuing all actions to reduce risks from HAL and eliminate the stocks as soon as is reasonably practicable. Therefore I recommend (see recommendation 1) that ONR issues LI502 to release the regulatory hold point that allows SL to withdraw OR-20 and implement the new HAL stocks control system.
75. Since there has been significant change to the arrangements for controlling HAL stocks at site over the past few years I recommend (Recommendation 2) that ONR

OFFICIAL

## OFFICIAL

writes to SL to clarify the regulatory expectations for managing HAL stocks going forwards.

76. On the basis that SL achieved compliance with OR-20 last year and has implemented a new control system I am satisfied that the shortfalls identified in Regulatory Issue (RI) 4370 have been addressed and recommend that RI4370 is closed. (Recommendation 3).

### **6 RECOMMENDATIONS**

77. Recommendation 1 – ONR issues LI502 to agree to the withdrawal of HALES OR-20
78. Recommendation 2 – ONR writes a letter to Sellafield stating its regulatory expectations regarding HAL stocks management going forwards
79. Recommendation 3 – ONR closes RI4370.

OFFICIAL

## OFFICIAL

### 7 REFERENCES

1. 2017/167088 - [REDACTED] – Plant Modification Proposal – Withdrawal of HALES operating rule 20 plus associated appendices (MSC meeting 235(Special)). March 2017
2. 2017/167084 - HALES MSC P(14) 073 – Operating Rules for Highly Active Liquor Stock Reduction, October 2014 (MSC 174) October 2014
3. 2017/167086 & 2017/1670090 - HALES MSC P(17) 027 – Proposed Options for Operating Rules 20 with ALARP justifications, March 2017 (MSC Meeting 235(Special)) March 2017
4. 2017/167083 - HALES Master Production Schedule 2016/17 – March 2017
5. 2017/167099 - HALES Inventory Visual Management Board Summary – March 2017
6. 2017/167091 - INSA Certificate 3047 – Withdrawal of HALES Operating Rule 20 – March 2017
7. 2017/167093 – HALES OR 20 Implementation - MSC 174 Minutes – October 2014
8. 2017/167095 – HALES OR 20 Withdrawal - Special MSC 235 Minutes – March 2017
9. 2017/167082 – Sellafield NSC 132 Minutes – March 2017
10. 2016/32941 – Sellafield Programme Task Sheet 2016-17 Objective 4 – Reduction in Risk from Highly Active Liquor Revision 7 – May 2017
11. *ONR HOW2 Guide - Purpose and Scope of Permissioning - NS-PER-GD-014 Revision 4*. July 2014. <http://www.onr.org.uk/operational/assessment/index.htm>
12. 2015/9792 – ONR-SEL-PAR-14-015 Issue 0 – HAL Stocks Specification – April 2015
13. 2014/177316 - ONR-SEL-PAR-14-002 Revision 0, Enforcement Decision Report Following Loss of Power to Sellafield Waste Vitrification Plant Line 3 - November 2013.
14. 2016/205340 – HALES MSC P(16)043 Operating Rule 20 – April 2016
15. RI4370 – Low Regulatory Confidence In HAL Stocks Reduction Strategy – June 2016
16. 2016/455474 – Operating Rule 20 compliance strategy, [REDACTED] 11 – November 2016
17. 2016/464730 – ONR-SDFW-AR-16-055 – HAL Stocks – Reprocessing Restart Decision Assessment – December 2016.
18. 2016/477482 – SEL77602 – THORP Chemical Plants Restart and HALES Operating Rule 20 – December 2016
19. 2017/188820 – EA Consultation – May 2017
20. 2017/195845 – CNS Consultation Confirmation – May 2017
21. 2017/168440 – SL HAL Strategic Forum Presentation - June 2016
22. 2010/628788 – Project Assessment Report PAR 120-10 – Revised HAL Stock Specification LI793 – June 2011
23. 2012/359165 – ONR-SEL-IR-12-275 – 2012 HAL Stocks Biennial Review – August 2012
24. 2016/82723 – ONR monitoring of SLs monthly HAL stock reports – 2001-2017

OFFICIAL

**OFFICIAL**

25. 2017/170607 – Email HALES Safety Case Manager to ONR Project Inspector – OR-20 Enquiries Response – April 2017.
26. Limits and Conditions for Nuclear Safety (Operating Rules) NS-TAST-GD-035 Revision 4, ONR, August 2014.  
[http://www.onr.org.uk/operational/tech\\_asst\\_guides/index.htm](http://www.onr.org.uk/operational/tech_asst_guides/index.htm)
27. 2017/176982 – Email HALES Operations Manager to ONR Project Inspector – OR-20 Enquiries Response – May 2016

**OFFICIAL**

**OFFICIAL**

**8 REVIEW, LEARN, IMPROVE**

In line with the Review, Learn, Improve (RLI) guidance on HOW2, it is not considered necessary to conduct an RLI event. The prompts given in the HOW2 guidance are shown, along with a comment to its relevance, in the table below.

<b>Prompt</b>	<b>Comment</b>
The task was complex and multi-disciplinary.	The task was not complex and only involved Project Inspection Effort.
The task significantly exceeded the estimated effort.	The task did not exceed the original estimated effort.
There were significant issues when interacting with the licensee.	The licensee was open and honest in all interactions.
There were significant issues interacting internally.	There were no significant internal issues.
There were differences in professional opinion between inspectors and procedure INS/031 was invoked.	Not applicable.
The recommended routine decision process could not be used – an exception or novel approach had to be taken.	A routine decision has been made.
Issues have arisen which may have wider regulatory implications.	No issues have arisen.
There is a need to inform the corporate memory (Knowledge Management)	This is not likely to be the case.