SIMRS Supplementary Pack #1

This document was produced to supplement the Invitation to Tender (ITT) for a Safeguards Information Management and Reporting System (SIMRS). It includes additional prepared information that may assist suppliers in providing a tender response. Each heading is related to a requirement in Annex A of the ITT, where it was mentioned that further details would be realised. It should be noted that, similarly to the ITT annexes, this information is "best-efforts" and may be subject to change. Equally, during the discovery phase we will be looking to work with the winning supplier to discuss this information, agree finalised requirements based on the existing draft requirements (Annex A of the ITT pack) etc.

NF6 – Date for movement to final platform

The final hosting of the SIMRS is not part of this package of work. However, the supplier must provide support to ONR in their hosting of the SIMRS and ensure host-compatibility where possible. The decision on how to host the SIMRS will be made on 1st June 2018. At this stage one of 3 options will be chosen:

1) Host the SIMRS on the new ONR IT infrastructure.
2) Host the SIMRS on a commercial cloud-based infrastructure.
3) Host the SIMRS on a commercial in-house server-based infrastructure.

It is expected that the SIMRS should be moved onto this platform during the testing phase of the project, around Oct-Nov time.

NF7 – Maximum classification of SIMRS information

It is confirmed that the maximum classification of material to be held by the SIMRS will be OFFICIAL-SENSITIVE.

NF33 – FOI and Data Protection

The information held within the SIMRS is not liable to the General Data Protection Regulation (GDPR). In terms of FOI, the capability of creating custom reports and searching the database is deemed sufficient to permit replies to FOI requests.

F15/F16 – List of nomenclature to be used and Translation from Euratom to IAEA.

This has now been clarified and agreed. Further information will be provided during the discovery phase with the successful supplier.

NF21/F34 – Draft list of approved users, identified users, groups and levels of functionality

Group	Member Details	Comments
Administrators	3 members	Group focuses on the running of the SIMRS and functionality only 'superusers' must have.
Senior Inspectors	1-5 members	Senior staff who can approve reports and submissions.
Inspectors	14-20 members	Staff who can investigate accountancy and produce reports that need approval.
Accountants	1-5 members	Staff focussing on maintaining and verifying the accounting information.
Reviewers	Up to 30 members potentially.	A basic "guest" account for users who have very limited functionality.
Duty Holders	n/a	A placeholder for future capability.

Functionality	Group				
	Administrators	Senior Inspectors	Inspectors	Accountants	Reviewers
Review and respond to DH Official Query					
Review and investigate V&V errors					
Approve DH submissions					
View and search the databases					
Generate reports (incl. custom)					
Approve reports to IAEA					
Create report templates					
View the change log and security logs					
Edit information within the databases	*limited to specific areas			*limited to specific areas	
Edit group memberships					
View Group memberships					
Add/edit timetable information					
View timetable information					
View Historic Euratom data					

F19 – Alignment with SDP

The ONR plan to submit all information to the IAEA using the State Declaration Portal (SDP). This portal is a separate IT system which the SIMRS is not required to interact with. However the SIMRS must be capable of generating reports, cover sheets for the reports, zipping multiple files together if appropriate and encrypting the zip files ready for a user to submit using the SDP.

F23/NF19 – Change log/Security log

The change log, perhaps more accurately referred to as an transaction log, is needed to record an un-editable account of the following:

- The individual who made a change/approval/edit of any information within the SIMRS.
- The date and time this action was performed.
- Details of the change.

The security log is needed to record an un-editable account of the following:

- Log-in events (which user, time/day)
- Any actions the user has taken, pages they have seen, information they viewed.
- Unsuccessful log-in events

F20/F27/FN25/NF13 – Information to be stored/DH submission methods and formats/Refined data size estimates

The information to be stored by the SIMRS, including desirable requirements, is as follows:

Nb. MBA is Material Balance Area

- Reports received from the Duty Holders
    - Date/time the report was received.
    - Copies of the reports.
    - Received in the Euratom 302/2005 format.
- Submitted Duty Holder data
    - Inventory Change Report (ICR) ~100 MBA's reporting 1 per month (twice per month in those months where a Physical Inventory Take (PIT) occurs.)
    - Material Balance Report (MBR) ~100 MBA's typically reporting 1 per year
    - Physical Inventory List (PIL) ~100 MBA's typically reporting 1 per year
    - Advance Notifications (AN) regarding inputs/exports of UK) ~100's total per year
    - Withdraw Notifications (WN) ~10's total per year

    - Basic Technical Characteristics (BTC) ~1's total per year (every MBA has a BTC, a low number of updates to these BTCs are received throughout the year as they are reviewed/updated)
    - Nuclear Co-operation Agreement (NCA) inventory ~relevant MBAs reporting 1 per year
    - Pu/HEU annual inventory ~relevant MBAs reporting 1 per year
    - Programme of activity ~100 reporting 1 per year
- Nuclear Material Accountancy Report templates
    - eg. Pre-defined IAEA code 10 compliant report, internal ONR format report, etc
- Reports sent to the IAEA
    - Date/time the report was sent.
    - Copies of the reports.
- Up to date nuclear material book accounts
    - In tabulated form, a running total (based on nuclear material accountancy reports received) of the current nuclear material inventory in each MBA for each nuclear material category.
- Timetable
    - Dates of inspections.
    - Dates of reporting deadlines.
    - Association of ONR inspectors to inspections.
    - Dates of inspection deadlines.
    - Planning information for inspections.
- Equipment inventory
    - List of equipment used for Safeguards.
    - Locations, serial numbers, description.
- Translations between Euratom/IAEA
    - SIMRS will contain set rules for translating between Euratom and IAEA nomenclature and reporting rules (see F15/F16).
- Change log
    - See following section.
- Security log
    - See following section.
- Safeguards files/documents
    - Scanned documents.
- Administrative arrangements of NCAs.
    - Text information regarding the arrangements.
    - Scanned documents.
- Notifications
    - Rules for sending notifications, eg. Triggers and recipients.
    - Record of send notifications.
- Inspection results
    - Text information.
    - Scanned documents.
- Euratom migrated data
    - Bulk storage data.

Additional Duty Holder submission information:

1) Programmes of Activity
    a. These are not in a specified format and vary between Duty Holders.
    b. Details expected include:
        i. production of material (product, amount to be produced for the year, enrichment/isotopic details)
        ii. Planned receipts of inventory (product, batch size, details)
        iii. Planned shipments of inventory (product, batch size, details)
        iv. Date of Physical Inventory Taking (PIT)
        v. Any decommissioning being undertaken.
        vi. Any facility shutdowns and/or black-out periods expected.
        vii. Any time period where operators are not available.

2) Basic Technical Characteristics (BTC)
    a. Based on a set-format in MS Word.
    b. Identifies the installation, location, owner, operator and purpose.
    c. Details of the layout of the installation.
    d. Details of the flow, location and handling of nuclear material.
    e. Description and use of nuclear material present.
    f. Details of the accountancy system and material balance.
    g. Details on how corrections are performed.
    h. Details on the Physical Inventory (PIT).

3) Material Balance Report (MBR)
    a. Based on a set-format in XML.
    b. Report type
    c. Identification of the MBA. (4 digit alphanumeric code)
    d. Date of report
    e. Number of report
    f. Number of lines in report
    g. Name of reporting person.
    h. Date period the report covers.
    i. Element category
    j. IC code
    k. Element weight
    l. Obligation code
    m. CRC hash
    n. Isotope designator
    o. Fissile weight

4) Physical Inventory List (PIL)
    a. Based on a set-format in XML.
    b. Report type
    c. Identification of the MBA. (4 digit alphanumeric code)
    d. Date of report

e. Date of PIL
f. Date period the report covers.
g. Number of report
h. Number of lines in report
i. Name of reporting person.
j. PIL item ID
k. Batch number
l. KMP and Measurement designators
m. Element category
n. Material form
o. Material container
p. Material state
q. Element weight
r. Obligation designator
s. Document reference.
t. Container ID
u. CRC hash
v. Isotope details.
w. Fissile weight.
x. Additional comments.

5) Inventory Change Reports (ICR)
   a. Software name and version
   b. Identification of the MBA. (4 digit alphanumeric code)
   c. Report type
   d. Report date
   e. Report number
   f. Number of lines in report
   g. Date period the report covers.
   h. Name of reporting person.
   i. Transaction ID number
   j. IC code
   k. Batch number
   l. KMP and measurement designators
   m. Material form
   n. Material container
   o. Material state
   p. The MBA the material has come from
   q. The original date
   r. The accounting date
   s. Number of items being moved
   t. Element category
   u. Element weight
   v. Obligation
   w. Document reference
   x. CRC hash
   y. The MBA the material is going to
   z. Isotope details

aa. Fissile weight
bb. Previous category
cc. Corrections
dd. Previous reports/previous lines/Previous CRC hash

For further information regarding formats, see https://www.gov.uk/government/publications/nuclear-safeguards-bill-draft-regulations.

F29 – Search criteria

As detailed above, the SIMRS looks to store a variety of information, in particular that submitted by Duty Holders. It is desired that this data be searchable by the following criteria, including by multiple criteria at once:

- MBA number
- Report number
- Corrections
- Installation/site
- Report type
- Date of report/report number
- IC code
- Element category
- Date period the report covers.
- Element weight
- Obligation code
- Isotope designator
- Fissile weight
- Date of PIL
- PIL item ID
- Batch number
- KMP and Measurement designators
- Material form
- Material container
- Material state
- Document reference.
- Container ID
- Software name and version for ICRs
- Transaction ID number
- Number of items being moved
- Corrections

Specifics of search capability will depend on the data architecture of proposed solutions. This list is provided to act as an initial guide.