

Additional Protocol (AP) Protocol Reporter Version 3.0 (PR3) – Test Plan and Procedure



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Nuclear Security and Isotope Technology Division

**ADDITIONAL PROTOCOL (AP)
PROTOCOL REPORTER 3.0 (PR3)
TEST PLAN AND PROCEDURE**

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1. INTRODUCTION

1.1 BACKGROUND

The Protocol Reporter (PR) was developed by the International Atomic Energy Agency (IAEA or Agency) to assist Member States in the creation, preparation, and submittal of declarations pursuant to articles 2 and 3 of the model Additional Protocol (AP, INFCIRC/540, corrected). AP refers to the additional reporting agreements following the “*Model Protocol Additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Application of Safeguards*” (INFCIRC/540) document. The AP requires states to prepare declarations for submission on AP-declarable activities and facilities. The PR was designed to be a complete tool for compiling, arranging, editing, managing, and submitting State declarations in support of the AP.

Version 1.0 (PR1) was released in 1999 and version 2.0 (PR2) was released in December 2008. Both were standalone desktop systems that allowed users to systematically identify and input data on AP-declarable activities and facilities, as well as to prepare a complete declaration for submission to the IAEA. The PR1 and PR2 employed a user interface similar to that of the Microsoft Windows operating systems’ File Management Module, and a hierarchical structure was used to organize States (Parties), Submissions, Declarations, and Entries. Technology solutions have advanced dramatically since 2008, and the PR2 was beginning to experience compatibility problems with newer operating systems. The Agency had also identified desirable enhancements to the system. As a result, on May 15, 2013, the IAEA accepted an offer by Mr. Kevin Veal of the U.S. Department of Energy (DOE) National Nuclear Security Administration (NNSA) Office of Nuclear Safeguards & Security to develop Version 3 of the Protocol Reporter (PR3) to succeed versions 1.0 and 2.0.

PR3 inherited the requirements from PR2 to serve as a complete tool for compiling, arranging, editing, managing, and submitting State declarations in support of the AP. Additional requirements were levied to address compatibility issues and desired enhancements. The high-level functional and data requirements are captured in the *Additional Protocol (AP) Protocol Reporter Version 3.0 (PR3) System Requirements Specification (SRS), March 2014*.

The enhancements provided with PR3 offer States an efficient, flexible, and attractive alternative to other methods of developing AP declarations, thus increasing PR3’s potential for widespread adoption as the standard AP declaration management tool. This in turn will result in an overall improvement of the quality of AP declarations submitted to IAEA in terms of accuracy, comprehensiveness, level of detail, and consistency of format.

1.2 PURPOSE

The purpose of the AP Protocol Report Version 3.0 Test Plan and Procedure is to describe the process that was followed to plan testing activities, articulate the test procedures, document test results, and provide a crosswalk of established requirements to the validated test results.

1.3 SOFTWARE QUALITY ASSURANCE

Software Quality Assurance (SQA) involves verifying requirements, standards, and procedures in the software development process to ensure that discrepancies in the software are discovered and resolved appropriately. Basic test objectives are to: (1) uncover defects in the software as early as possible in the life cycle, (2) determine whether the software functions according to documented requirements, and (3) to ultimately obtain customer acceptance of the software. Software testing is composed of test planning, test execution activities, and defect management activities. The personnel utilized for the SQA process are independent of the software development team although they work closely with developers to understand the system and resolve any defects identified within the system.

Test planning activities identify what needs to be tested and the appropriate test method to validate each requirement. Test planning activities also include developing step-by-step test procedures to verify both functional and non-functional system requirements. Functional requirements describe what the system should do, including what data must be collected, what actions must be available, and system inputs and outputs. Non-functional requirements address how the system should behave, including organization, ease of use, and extensibility. The completed set of test procedures evaluate the data, functionality, inputs and outputs, boundary conditions, and integrated behavior of the system against the defined requirements.

During test execution, a software tester conducts the tests per the written test procedures, compares the results against the expected behavior, and documents test results.

The final block in the SQA process is managing defects. Defects represent any deviation from expected behavior or the intended behavior of the system. They are reported to developers as part of the testing process and they are tracked through final resolution.

1.4 RELATED DOCUMENTS

The following documents are additional resources for information related to AP declarations and the PR:

1. *Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards* (INFCIRC/540, corrected)
2. *Guidelines and Format for Preparation and Submission of Declarations Pursuant to Articles 2 and 3 of the Model Protocol Additional to Safeguards Agreements*, May 2004 (Service Series 11)
3. *Additional Protocol (AP) Protocol Reporter Version 3.0 (PR3) System Requirements Specification (SRS)*, March 2014
4. *Additional Protocol (AP) Protocol Reporter Version 3.0 (PR3) System Design Specification (SDS)*, August 2015
5. *Shortcomings of PR*
6. PR3 report working meeting notes: September 2015

2. PR3 TEST PLAN AND PROCEDURE

2.1 SQA MANAGEMENT

This section identifies and describes the major elements of the performed activities related to the PR3 SQA test plan and procedure.

2.1.1 Approach

An SQA process was implemented for the PR3, and the process was scaled to be appropriate for the size and scope of the PR3 application. The SDS document was used to gain an understanding of the system from an end user standpoint. The System Requirements Specification (SRS) was used to correlate high-level functional and data requirements with the designed implementation. Once the tester became familiar with the presentation and functionality of the software, she devised a test plan which decomposed use cases and requirements into smaller components that could easily be tracked. The resulting test plan identified unique and testable functional and data requirements from the SRS. An appropriate test method was determined for each requirement and expected results were documented. This strategy allowed for the test procedure to be created which verified that each requirement in the SRS was implemented and functioned as stated. The tester was provided with discrete and verifiable software requirements for version 3.0 of the PR3.

2.1.2 Implementation

Test plan and procedures for the PR3 software were developed and finalized in the spring of 2015. Tests were executed over a period of approximately three weeks ending in June 2015. The cross walk in the next section identifies each discrete requirement, the test method utilized for each requirement, and expected results. As tests were executed, the tester recorded whether the system complied with the expected results and noted any deviations. Deviations or any non-compliance with requirements were tracked as part of the test procedure through resolution and final compliance.

2.1.3 Defect Reporting and Resolution

The defect resolution process consisted of the tester meeting with the development team for approximately two hours on a weekly basis to examine issues and answer questions regarding the system and requirements. Defects that had been recorded were discussed with the development team and had several possible outcomes:

- Issue could be fixed immediately: Issues in this category were integrated in the code base and returned for testing.
- Issues required more investigation and work to resolve: Issues in this category were resolved outside the weekly meeting. An automated record of completion was sent to the tester and the corrections were tested.
- Requirements clarification: Some issues were rooted in lack of clarity or understanding of the expected behavior or questions highlighted an inconsistency in the requirements. In these cases, requirements were updated appropriately and the test procedure was adjusted accordingly. The modified procedure was then executed to compliance.

Once the test procedure was completed, final results and documentation was submitted to the developers and Project Manager on June 5, 2015.

3. CROSSWALK REQUIREMENTS TO TEST PLAN

3.1 CROSSWALK DESCRIPTION

This section provides the specific integration tests and system tests that were conducted to validate that the PR3 complied with all requirements in the SRS. Detailed information for each requirement, the test method employed, and details of the test and results are documented. Testing criteria apply to all requirements and subsequent amendments to the PR3. Testing was conducted on Version 3.0 to ensure all requirements were met prior to submitting the PR3 to the IAEA for final acceptance. Future validation will be conducted as appropriate and authorized based on IAEA feedback.

The tables in this section include the following information concerning each individual requirement:

- The requirement identifier
- The actual text of the requirement
- The test method to be used for the requirement

A valid requirement identifier is of the format *aa-nnn*, where *aa* signifies the topical area (such as “OE” for Operational Environment) and *nnn* is a number unique to the given topical area. The requirement number will stay with the requirement for the life of the project to ensure proper traceability.

For each requirement, the most appropriate of the following Test Methods were selected:

- Interview (I): The testing process includes an interview of someone (e.g., an authenticated user, system administrator, cyber security officer, system owner) to confirm that part of, or the entire, requirement has been implemented.
- Observation (O): The testing process includes observing an operation (e.g., system accepts/rejects the data, user initiates help) to confirm that part of, or the entire, requirement has been implemented.
- Technical Testing (T): The testing process includes technically testing an operation (e.g., upload/download of data, the system generates correct reports) to confirm that part of, or the entire, requirement has been implemented.
- Documentation (D): The testing process includes verifying that documentation exists and includes the required information (e.g., data management procedures are in place, user/administrators guidance is available) to confirm that part or the entire requirement has been implemented.

The tables also record the specific Test Plan identifier, the date the test was executed, the individual who conducted the test, and the final results. Like the Requirement Identifier, the Test Identifier will remain with the PR3 for the life of the product to maintain traceability. The complete test procedures are provided in Appendix D.

3.2 CROSSWALK TABLES

The tables in this section are organized in the same manner as Section 4.1 of the SRS, titled System Requirements. The numbering on the tables matches the numbering of the requirements in the SRS to facilitate traceability.

Table 1. Reference Table 4.1.1 Operational Environment, *PR3 SRS, March 2014*

SRS Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
OE-001	The system shall be able to operate on a single Windows-based computer.	T	OE 1	4/23/2015	JWH	Interface opened with no problems
OE-002	The system shall be capable of running on either 32-bit or 64-bit computing platforms.	T	OE 2	4/23/2015	JWH	The computer used to administer the test is a 64 bit machine.
OE-003	The system shall be capable of running under Microsoft Windows XP operating system and later versions of Windows through Windows 8.1.	T	OE 3	4/23/2015	JWH	The computer used to administer the test is running Windows 7 Enterprise.
OE-004	Installation and operation of the system shall not require additional software or special environments that lead to the need for supplementary software licenses.	T	OE 4	4/23/2015	JWH	The user was not prompted to download any additional software upon launching the software.
OE-005	Human-readable source code for the system shall be available to the State.	O,D	OE 5	4/23/2015	JWH	This won't be available until release. It will be more an issue of distribution than the PR3 itself, so I don't think we need to test this requirement.

Table 2. Reference Table 4.1.3 System Architecture (SA), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
SC-001	The system and all associated components (including help files) shall be written in the English language.	O	N/A	N/A	JWH	Removed- help files have not been written yet, but since the IAEA functions in English, the files will likely be in English as well.
SC-002	At a minimum, the system shall support a single-user standalone installation with no network connection.	T	SC 1	4/29/2015	KMH	Tested to Compliance
SC-003	The system shall not require user authentication to operate. This requirement does not apply to any function that electronically transmits or receives Submission data from Agency systems.	T	SC 2	4/23/2015	JWH	The system did not ask me for a login/password.
SC-004	Installation and use of the system shall not require reconfiguration (i.e., changing the default date format) of the target computer.	T	SC 3	4/23/2015	JWH	Tested to Compliance No reconfiguration required.
SC-005	The system shall be built such that it can be translated into different languages.	T	N/A	N/A	JWH	Removed- at this time there is no plan to translate it, but that may come in a later release.

Table 2. Reference Table 4.1.3 System Architecture (SA), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
SA-001	The system's web components (if any) shall operate on computers running appropriate popular browsers with a secure transmission protocol.	T	N/A	N/A	JWH	Removed- no plan for web components
SA-002	The system shall support two user levels of Entry and Submission developmen.	O,T	SA 1	4/27/2015	JWH	Tested to compliance- Mode toggle is in top right-hand corner. Only Entries exist in the Contributor mode.
SA-002.1	Entry preparation by Contributors (for example, at the operator or site level).	O,T	SA 1.1	4/27/2015	JWH	Tested to Compliance in the Contributor mode.
SA-002.2	Submission preparation at the SRA level.	O,T	SA 1.2	4/27/2015	JWH	Tested to Compliance in the SRA mode.

SRA — Safeguards Regulatory Authority

Table 2. Reference Table 4.1.3 System Architecture (SA), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
SA-003	The system shall be able to accommodate and apply different data structures for different states in accordance with the requirements of their specific AP agreements.	T	SA 2	6/4/2015	JWH	Changing templates isn't testable yet (we really only have the Model AP template).
SA-003.1	Model Additional Protocol	T	SA 2.1	6/1/2015	JWH	Tested in Compliance
SA-003.2	United Kingdom	T	SA 2.2	4/20/2015	JWH	We don't have these templates yet. There's been some discussion on whether we'll be developing them, or just supporting the IAEA in developing them.
SA-003.3	France	T	SA 2.3	4/20/2015	JWH	We don't have these templates yet. There's been some discussion on whether we'll be developing them, or just supporting the IAEA in developing them.
SA-003.4	People's Republic of China	T	SA 2.4	4/20/2015	JWH	We don't have these templates yet. There's been some discussion on whether we'll be developing them, or just supporting the IAEA in developing them.
SA-003.5	Russia	T	SA 2.5	4/20/2015	JWH	We don't have these templates yet. There's been some discussion on whether we'll be developing them, or just supporting the IAEA in developing them.
SA-003.6	Other TBD structures based upon future Agency agreements.	T	SA 2.6	4/20/2015	JWH	We don't have these templates yet. There's been some discussion on whether we'll be developing them, or just supporting the IAEA in developing them.

Table 2. Reference Table System Architecture (SA) 4.1.3, PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
SA-004	The system shall allow the user to select which data template the system will use when creating Entries, Declarations, and Submissions.	T	SA 3	4/20/2015	JWH	This is not testable until we have an additional template.
SA-005	The system shall not require installation of a separate database server.	O,T	SA 4	4/23/2015	JWH	The system is functioning without any additional installations.

Table 3. Reference Table 4.2.1 Declarable Data (DD), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
DD-001	The system shall support the creation and management of information that meets the requirements set forth in Article 2 and Article 3 of the AP with file attachments.	O,T	DR-DD 1	6/05/2015	JWH	Tested to Compliance-2.a.v was divided in two.
DD-002	A valid Entry is a collection of specific information in a format that meets the requirements of the AP article to which the Entry applies. The required data structure for each type of Entry is listed in Appendix C of this document.	T	DR-DD 2	4/23/2015	JWH	Tested to Compliance When attempting to submit a noncompliant entry, the error bar popped up and informed me as to what was missing.

Table 3. Reference Table 4.2.1 Declarable Data (DD), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
DD-003	An Entry can exist independently, without a relationship or reference to any Declaration or Submission.	T	DR-DD 2.1	4/23/2015	JWH	Tested to Compliance The entries can be merely saved- they do not need to be submitted
DD-004	A Declaration consists of header information and a collection of zero or more entries that apply to a specific AP article, in a format that meets the requirements of that article. The required data structure for each type of Declaration is listed in Appendix C.	T	DR-DD 3	4/27/2015	JWH	Tested to Compliance
DD-005	A valid Declaration is one that contains all required header information (as defined in Appendix C) and contains one and only one of the following. -An affirmative indication that it is a “No Change” declaration, indicating that the information provided in the previously submitted active declaration for the corresponding article still stands, or -An affirmative indication that there is “Nothing to Declare” for the associated article, or -A collection or list of one or more valid Entries for the associated article.	T	DR-DD 4	4/27/2015	JWH	Tested to Compliance

Table 3. Reference Table 4.2.1 Declarable Data (DD), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
DD-006	A Submission is a collection of one or more Declarations that apply to a specific Submission Type as defined in AP Article 3, along with header information in a format that meets the requirements of that Submission Type. The required data structure for each type of Submission is listed in Appendix C of this document.	T	DR-DD 5	4/27/2015	JWH	Tested to Compliance
DD-007	A Submission can exist independently, without a relationship to or “knowledge” of any Declaration or Entry.	T	DR-DD 6	4/27/2015	JWH	Tested to Compliance
DD-008	Submission content is identified in terms of Article 3 of the <i>Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards</i> . For example, 3.a type Submission will expect only Declarations identified under Article 3.a and Notes. A detailed description is provided in Appendix C of this document.	O,T	DR-DD 7	4/27/2015	JWH	Tested to Compliance
DD-009	A valid Submission contains all required header information (as defined in Appendix C) and contains a collection of one or more Declarations that meet the requirements of Article 3 for that Submission Type.	O,T	DR-DD 8	4/27/2015	JWH	Tested to Compliance

Table 3. Reference Table 4.2.1 Declarable Data (DD), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
DD-010	Unless prescribed otherwise by a Submission template, Declaration content is identified in terms of Article 2 of the Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards. This includes Article 2.c. A detailed description is provided in Appendix C of this document.	O,T	DR-DD 9	4/29/2015	JWH	Tested to Compliance
DD-011	The system shall be capable of tracking Article 2.c support files, such as letters, maps, and copies of correspondence (see File Attachments for related requirements).	T	DR-DD 10	4/27/2015	JWH	Tested to Compliance
DD-012	Data entry fields shall be displayed in such a way as to easily distinguish between declarable data fields that will be submitted to the IAEA, and undeclarable data fields that will not be submitted to the IAEA and is reserved for State use.	O	DR-DD 11	4/27/2015	JWH	Tested to Compliance - the internal data is highlighted blue to differentiate

Table 4. Reference Table 4.2.2 Undeclarable Data (UD), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
UD-001	The system shall generate an internal unique identifier for each Entry, Declaration, and Submission.	T	DR-ID 1	6/04/2015	JWH	Tested to Compliance
UD-002	The system shall allow status information to be tracked for Entry, Declaration, and Submission (see Entry and Submission Status section for related requirements).	O,T	DR-ID 2	4/27/2015	JWH	Tested to Compliance
UD-003	The system shall support the entry of undeclarable data at the Submission level. These undeclarable data are for use by State authorities and are not included in the submission to the IAEA. A detailed description is provided in Appendix C of this document.	O,T	DR-ID 3	4/29/2015	JWH	Tested to Compliance
UD-004	The system shall support the entry of undeclarable data at the Declaration level. These undeclarable data are for use by State authorities and are not included in the submission to the IAEA. A detailed description is provided in Appendix C of this document.	O,T	DR-ID 4	4/29/2015	JWH	Tested to Compliance
UD-005	The system shall support the entry of undeclarable data at the Entry level. These undeclarable data are for use by State authorities and are not included in the Submission to the IAEA. A detailed description is provided in Appendix C of this document.	O,T	DR-ID 5	4/29/2015	JWH	Tested to Compliance

Table 5. Reference Table 4.2.3 Lookup Data (LD), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
LD-001	The system shall load lookup files containing choices for enumerated fields provided by both the IAEA and the State.	O,T	DR-LD 1	4/27/2015	JWH	Tested to Compliance
LD-002	The system shall allow the user to manually update lookup tables not provided by the IAEA.	O,T	DR-LD 2	4/27/2015	JWH	Tested to Compliance *To be successful, the file name must be changed prior to uploading
LD-003	The system shall allow the user to export State-maintained lookup tables to a file that can be loaded into another instance of the system.	O,T	DR-LD 3	4/27/2015	JWH	Tested to Compliance
LD-004	A user shall be able to merge State-maintained lookup data from a file with existing local lookup data.	O,T	DR-LD 4	4/27/2015	JWH	Tested to Compliance - in order to be replaced, the file must have the .pr3l extension
LD-005	The system shall allow users to view the contents of lookup files and relevant revision information.	O	DR-LD 5	6/01/2015	JWH	Tested to Compliance - Settings/Lookup Data

Table 6. Reference Table 4.3.1 Entry and Submission Statuses (ES), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
ES-001	Entries shall have a Status field representing their current state in the declaration development process.	O,T	PR-ES 1	4/27/2015	JWH	Tested to Compliance *Depending on the status, it may not be possible to edit the entry
ES-002	Submissions shall have a Status field representing their current state in the declaration development process.	O,T	PR-ES 2	4/27/2015	JWH	Tested to Compliance *Depending on the status, it may not be possible to edit the entry
ES-003	There shall be at least two categories of statuses:	O	PR-ES 3	4/27/2015	JWH	Tested to Compliance
ES-003.1	-Statuses representing in-development declaration data, which are fully editable.	O	PR-ES 4	4/27/2015	JWH	Tested to Compliance
ES-003.2	-Statuses representing completed or submitted declaration data, which are read only.	O	PR-ES 5	4/27/2015	JWH	Tested to Compliance
ES-004	Users may change the status of an Entry or Submission, since the purpose of the status field is for users to track their own progress.	O,T	PR-ES 6	4/27/2015	JWH	Tested to Compliance
ES-004.1	-Validation or other process requirements shall not restrict status changes.	O,T	PR-ES 6.1	6/1/2015	JWH	Tested to Compliance - yet validation is problematic (Look Up Data not present due to settings bug)
ES-004.2	-Status may be changed automatically by certain actions within the system.	O,T	PR-ES 6.2	6/1/2015	JWH	Tested to Compliance

Table 7. Reference Table 4.3.2 Manage Submission (MS), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
MS-001	The system shall provide the capability to create a new Submission. Submission contents and properties are described in Appendix C of this document.	O,T	PR-MS 1	4/27/2015	JWH	Tested to Compliance
MS-002	The system shall provide the capability to create a new Submission by copying an existing Submission.	O,T	N/A	N/A	N/A	Removed- not implemented because of how they defined the relationship between entries and submissions
MS-003	The user shall be able to manage Declarations as part of a Submission (see Manage Declarations for related requirements).	O,T	PR-MS 2	4/27/2015	JWH	Tested to Compliance
MS-004	The system shall provide the capability to import a Submission (see Import/Export for related requirements) from legacy formats.	T	PR-MS 3	5/1/2015	JWH	Tested to Compliance
MS-005	The system shall provide the capability to edit the properties of a Submission.	O,T	PR-MS 4	4/27/2015	JWH	Tested to Compliance
MS-006	The system shall provide a warning to the user before deleting a Submission.	O,T	PR-MS 5	4/27/2015	JWH	Tested to Compliance
MS-007	The system shall be capable of exporting a Submission to a format that can be submitted to the IAEA (see Import/Export and Quality Control for related requirements).	T	PR-MS 6	4/27/2015	JWH	Tested to Compliance
MS-008	The system shall allow a Submission to be created based on the previous Submission, with the possibility to denote each declaration as "Update" or "No Change."	O,T	PR-MS 7	6/4/2015	JWH	Tested to Compliance
MS-009	When creating a new Submission to update a previous Submission, the default reporting period dates shall be generated automatically.	O,T	PR-MS 8	6/4/2015	JWH	Tested to Compliance

Table 8. Reference Table 4.3.3 Manage Declarations (MD), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
MD-001	The system shall provide the capability to create a Declaration. Declaration contents and properties are described in Appendix C of this document.	O,T	PR-MD 1	4/27/2015	JWH	Tested to Compliance
MD-002	The system shall allow a Declaration to be created based on a previous Declaration, with the possibility to denote it as “No Change,” or its Entries as “Update.”	O,T	PR-MD 2	6/4/2015	JWH	Tested to Compliance This is now done through “Prepare Update Entries” in the Data Manager. You won’t be able to mark Entries or Declarations “No Change” in Prepare Update Entries; that will be done in the Entry or Submission Editor. (This ensures that a user can’t just mark every item without looking at them.)
MD-003	The user shall be able to manage Entries as part of a Declaration (see Manage Entries for related requirements).	O,T	PR-MD 3	4/27/2015	JWH	Tested to Compliance
MD-004	A user shall be able to add existing Entries for a given Article to a Declaration for the same Article.	O,T	PR-MD 4	4/29/2015	JWH	Tested to Compliance

Table 8. Reference Table 4.3.3 Manage Declarations (MD), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
MD-005	The user shall be able to extract Entries from a Declaration, either to save independently or insert into another Declaration.	O,T	N/A	N/A	N/A	Removed because is no longer necessary, as Entries are stored separately from Submissions
MD-006	A Declaration shall not be considered valid unless it includes at least one Entry for the associated Article or is marked as either “No Change” or “Nothing to Declare.”	T	PR-MD 5	6/4/2015	JWH	Tested to Compliance
MD-007	A Declaration marked as “No Change” or “Nothing to Declare” shall not contain Entries.	T	PR-MD 6	6/4/2015	JWH	Tested to Compliance
MD-008	The system shall provide the capability of entering Declaration data as described in Appendix C of this document.	O,T	PR-MD 7	4/28/2015	JWH	Tested to Compliance
MD-009	The system shall provide the capability to edit an existing Declaration.	O,T	PR-MD 8	4/28/2015	JWH	Tested to Compliance
MD-010	The system shall provide the capability to delete a Declaration.	O,T	PR-MD 9	4/28/2015	JWH	Tested to Compliance
MD-011	Where practical, the system shall use structured fields in place of general text fields that cannot be easily validated.	O,T	PR-MD 10	4/28/2015	JWH	Tested to Compliance

Table 8. Reference Table 4.3.3 Manage Declarations (MD), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
MD-012	The system shall provide the capability of attaching any number of files to a Declaration (see File Attachments for related requirements).	O,T	PR-MD 11	5/1/2015	JWH	Tested to Compliance
MD-013	Where practical, the layout of the primary Declaration view shall resemble that depicted in <i>Guidelines and Format for Preparation and Submission of Declarations Pursuant to Articles 2 and 3 of the Model Protocol Additional to Safeguards Agreements (May 2004)</i> .	O	N/A	N/A	JWH	The layout was changed, therefore the test was removed.
MD-013.1	-The system shall provide the capability of displaying sorted Entries within a Declaration by Entry number or by another column selected by the user.	O	PR-MD 12	4/28/2015	JWH	Tested to Compliance
MD-014	The system shall provide methods for validating a Declaration for correctness and completeness, and the user shall be able to execute validation when editing or viewing a Declaration.	O,T	N/A	N/A	JWH	Removed, as declaration validation happens during submission validation.
MD-015	The process of validating a Declaration shall also validate its Entries.	O,T	PR-MD 13	6/4/2015	JWH	Tested to Compliance

Table 8. Reference Table 4.3.3 Manage Declarations (MD), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
MD-016	To avoid re-entry of the same data, the system shall automatically generate default reporting period and “as-of” dates where practical.	O,T	PR-MD 13	N/A	JWH	Not yet implemented
MD-017	Default reporting periods and “as-of” dates should be easily changeable by the user.	O,T	PR-MD 15	6/4/2015	JWH	Tested to Compliance
MD-018	If there are multiple Declarations in an Initial Submission or the first update for a given Article, then those Declarations may have different “as-of” dates.	T	PR-MD 16	4/29/2015	JWH	Tested to Compliance

Table 9. Reference Table 4.3.4 Manage Entries (ME), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
ME-001	The system shall provide the capability to create Entries. Entry data structure is described in Appendix C of this document.	O,T	PR-ME 1	4/28/2015	JWH	Tested to Compliance
ME-002	The system shall provide the capability to create a new Entry by copying an existing Entry.	O,T	PR-ME 2	N/A	JWH	Requirement to be removed pending Agency approval.

Table 9. Reference Table 4.3.4 Manage Entries (ME), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
ME-003	The system shall allow the user to include any number of Entries in a Declaration.	O,T	PR-ME 3	4/28/2015	JWH	Tested to Compliance
ME-004	The system shall provide the capability to edit an existing Entry.	O,T	PR-ME 4	4/28/2015	JWH	Tested to Compliance
ME-005	The system shall provide the capability to edit a previously submitted Entry by changing the status of the Entry (or the Submission containing it) to one that allows editing.	O,T	PR-ME 5	4/28/2015	JWH	Tested to Compliance *Changed to Ready for SRA Review, and back to "Draft"
ME-006	The system shall allow an Entry to be created based on a previous Entry, with the possibility to denote it as "Update" or "No Change."	O,T	PR-ME 6	6/4/2015	JWH	Tested to Compliance
ME-006.1	- The system shall display a warning before allowing the user to create an Update Entry for a previously submitted Final Entry.	O,T	PR-ME 6.1	N/A	JWH	Will add a "validation warning."
ME-007	The system shall provide the capability to delete an Entry.	O,T	PR-ME 7	4/28/2015	JWH	Tested to Compliance
ME-008	The system shall provide the capability of displaying Entries sorted by a column selected by the user.	O,T	PR-ME 8	4/28/2015	JWH	Tested to Compliance

Table 9. Reference Table 4.3.4 Manage Entries (ME), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
ME-009	Where practical, the system shall use structured fields in place of general text fields that cannot be easily validated.	O,T	N/A	N/A	JWH	Removed- was originally tested, but removed as it was redundant.
ME-010	The system shall provide the capability of attaching any number of files to an Entry (see File Attachments for related requirements).	O,T	PR-ME 9	5/1/2015	JWH	Tested to Compliance
ME-011	The system shall provide the same functions for managing an Entry whether or not it is part of a Declaration.	O,T	PR-ME 10	4/29/2015	JWH	Tested to Compliance The Entry Editor is the same, though when in a Declaration, some fields (Reporting Period, INFCIRC, etc.) may not be editable.
ME-012	The system shall provide methods for validating an Entry for correctness and completeness, and the user shall be able to execute validation when editing or viewing an Entry.	O,T	PR-ME 11	6/4/2015	JWH	Tested to Compliance
ME-013	It shall be possible to transfer Entries to other users.	T	PR-ME 12	4/28/2015	JWH	Tested to Compliance
ME-014	If Entries are not stored in individual files by default, it shall be possible to export and import them to and from the file system.	T	PR-ME 13	4/28/2015	JWH	Tested to Compliance
ME-015	The system shall allow input of multiple fuel cycle stages for Article 2.a.(i), 2.a.(x), and 2.b.(i) Entries.	O,T	PR-ME 14	4/28/2015	JWH	Tested to Compliance w 2.a.i, x., b.i.
ME-016	For Article 2.a.(ix) Entries, the system shall allow only the year or only the year and month to be entered in case the exact export date is not available.	T	PR-ME 15	4/28/2015	JWH	Tested to Compliance – only month and year were given

Table 10. Reference Table 4.3.5 Declaration and Entry Numbering (DN), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
DN-001	By default, the first declaration created in the system shall be numbered “1”. Subsequent declarations shall be numbered sequentially within each submission and shall continue sequentially from one submission to the next.	O,T	PR-DN 1	4/28/2015	JWH	Tested to Compliance
DN-002	By default, the system shall automatically renumber Declarations as they are added to, removed from, or re-ordered within a Submission to achieve sequential numbering with no gaps.	O,T	PR-DN 2	4/28/2015	JWH	Tested to Compliance
DN-003	It shall be possible to specify the starting number for automatically numbering declarations within a submission. This may be used to specify a number other than “1” for the first Declaration in the first Submission.	O,T	PR-DN 3	4/28/2015	JWH	Tested to Compliance

Table 10. Reference Table 4.3.5 Declaration and Entry Numbering (DN), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
DN-004	By default, the system shall automatically renumber Entries as they are added to, removed from, or re-ordered within a Declaration to achieve sequential numbering with no gaps.	O,T	PR-DN 4	4/28/2015	JWH	Tested to Compliance
DN-005	The system shall provide the capability to reserve a particular number for a particular Declaration or Entry, so that missing Declarations or Entries can be included in a later Submission, while preserving numbering.	O,T	N/A	N/A	JWH	Removed- according to developers, this was discussed with the IAEA and will not be implemented

Table 11. Reference Table 4.3.6 Entry Cross-referencing (EC), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
EC-001	The system shall provide the capability for an Entry to cross-reference any number of other Entries, either within the same and/or another Submission.	O,T	PR-EC 1	4/28/2015	JWH	Tested to Compliance
EC-002	The system shall provide the capability for an Entry to cross-reference any number of Declarations within the same and/or another Submission.	O,T	PR-EC 2	4/28/2015	JWH	Tested to Compliance
EC-003	A cross-reference shall consist of the Declaration and Entry Number of the related entry.	O,T	PR-EC 3	4/28/2015	JWH	Tested to Compliance
EC-004	Within the same Submission, if Entry "A" refers to Entry "B," then Entry "B" shall automatically refer to Entry "A."	O,T	PR-EC 4	N/A	JWH	Will be implemented during Beta
EC-005	Where applicable, the system shall perform quality check to ensure that if Entry "A" references Entry "B", Entry "B" references Entry "A" as well.	T	PR-EC 5	N/A	JWH	Will be implemented during Beta
EC-006	The system shall support viewing the referenced Entry from the referencing Entry if the referenced Entry is available.	O,T	PR-EC 6	6/4/2015	JWH	Partial Compliance- does not provide links when entered manually Will be enhanced during Beta
EC-007	It shall be possible to delete a Reference.	O,T	PR-EC 7	4/28/2015	JWH	Tested to Compliance
EC-008	If Declarations or Entries within a Submission are renumbered, all References within that Submission shall be updated to reflect the new numbers.	O,T	PR-EC 8	6/4/2015	JWH	Tested to Compliance

Table 12. Reference Table 4.3.7 Data Entry (DE), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
DE-001	Data validation shall be available where practical on all entry screens (see Quality Control (QC) for related requirements).	O,T	PR-DE 1	6/4/2015	JWH	Tested to Compliance
DE-002	Data entry fields shall be displayed in such a way as to easily distinguish between which elements the IAEA considers mandatory and those considered optional.	O	PR-DE 2	6/4/2015	JWH	Tested to Compliance
DE-003	Printable output of Declarations or Submissions not intended for paper transfer to the IAEA shall include the designation, "Not valid for submission to the IAEA until certified by the State."	O	PR-DE 3	N/A	JWH	To be enhanced during beta testing This designation is shown when viewing/printing Entry or Submission detail reports, unless view/print from "Export for Agency."
DE-004	Where appropriate (such as for authorities and addresses), the system shall provide a means for States to manage their own validation lists.	O,T	PR-DE 4	4/28/2015	JWH	Tested to Compliance
DE-005	Where data are displayed in a grid, the system shall allow the user to change the column order and width. These changes shall persist between user sessions.	O	PR-DE 5	4/28/2015	JWH	Tested to Compliance

Table 13. Reference Table 4.3.8 Search, Filter, and Navigate (SFN), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
SFN-001	At a minimum, the system shall provide the capability of searching Declaration data using the following criteria:	O,T	PR-SFN 1	6/4/2015	JWH	Tested to Compliance
SFN-001.1	- Declaration number	O,T	PR-SFN 1.1	6/4/2015	JWH	Tested to Compliance Search using the "DeclarationNumber" prefix (e.g., "DeclarationNumber:1")
SFN-001.2	- AP Article	O,T	PR-SFN 1.2	4/28/2015	JWH	Tested to Compliance
SFN-001.3	- Declaration date(s)	O,T	PR-SFN 1.3	4/28/2015	JWH	Tested to Compliance
SFN-001.4	- Cross-reference	O,T	PR-SFN 1.4	6/4/2015	JWH	Tested to Compliance Search with the References.Number prefix (e.g., "References.Number:Ruritania-1-1" or "References.Number:1-1").
SFN-002	The system shall include the capability of performing a full-text search (including Boolean operators and wildcards) across all data that is accessible by the system.	O,T	PR-SFN 2	6/4/2015	JWH	Tested to Compliance
SFN-003	It shall be possible to easily filter, navigate, and browse Declaration and Entry data throughout a Submission.	T	PR-SFN 2	4/29/2015	JWH	Test failed – does not contain, filter but does allow for navigation and browsing *Filtering may not be implemented pending Agency feedback

Table 14. Reference Table 4.3.9 Import/Export (IE), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
IE-001	The system shall be capable of importing files of text-delimited Submissions as defined in Protocol Reporter 1.0 export format even if the file to be imported includes validation errors.	T	PR-IE 1	6/5/2015	JWH	Tested to Compliance
IE-002	The system shall be capable of importing files of text-delimited Submissions as defined in Protocol Reporter 2.0 export format even if the file to be imported includes validation errors.	T	PR-IE 2	6/5/2015	JWH	Tested to Compliance
IE-003	The system shall be capable of importing files of .xml Submissions as defined in Protocol Reporter 2.0 export format even if the file to be imported includes validation errors.	T	PR-IE 3	4/28/2015	JWH	Tested to Compliance for an import
IE-004	The system must be capable of importing previously submitted Declaration data provided by the Agency in PR1, PR2, or PR3 format.	T	N/A	N/A	JWH	Removed as some other tests covered the requirements listed here
IE-005	By default, legacy data shall be imported in read-only format.	T	PR-IE 4	6/5/2015	JWH	Tested to Compliance- Files cannot be edited even if the status is changed from "Submitted" to "Draft"
IE-006	A user may opt to convert legacy data into an editable format.	T	PR-IE 5	6/5/2015	JWH	Tested to Compliance- By default, legacy data is converted to the PR3 format
IE-007	The system shall notify the user and provide details if an import or export fails.	T	PR-IE 6	4/28/2015	JWH	Tested to Compliance for an import- not sure how to make an exported file "fail"

Table 14. Reference Table 4.3.9 Import/Export (IE), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
IE-008	The system must be capable of deleting any imported data.	O,T	PR-IE 7	4/28/2015	JWH	Tested to Compliance
IE-009	The ability to import and export files shall be a standard feature of the system and not require special activation to enable.	O,T	PR-IE 8	4/28/2015	JWH	Tested to Compliance
IE-010	The system shall be capable of importing any output exported by the system.	T	PR-IE 9	4/28/2015	JWH	Tested to Compliance
IE-011	All data exported by the system shall be in human-readable format.	T	PR-IE 10	4/29/2015	JWH	Tested to Compliance
IE-012	The system shall support export in UTF-8 text format.	T	PR-IE 11	4/29/2015	JWH	Tested to Compliance
IE-013	Data shall be exported without adding to or changing its content.	T	PR-IE 12	4/29/2015	JWH	Tested to Compliance
IE-014	Where applicable, exported data shall include all attached files (see File Attachments (FA) for related requirements).	T	PR-IE 13	6/5/2015	JWH	Tested to Compliance
IE-015	Where applicable, exported Submissions shall provide dates formatted as YYYY-MM-DD.	O,T	PR-IE 14	4/29/2015	JWH	Tested to Compliance
IE-016	All data shall be validated prior to export. The user shall be notified of any errors and warnings, but may choose to continue the export.	O,T	PR-IE 15	6/5/2015	JWH	Tested to Compliance

Table 15. Reference Table 4.3.10 File Attachments (FA), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
FA-001	The system shall include the capability to attach any number of files at the Submission level.	O,T	PR-FA 1	5/1/2015	JWH	Tested to Compliance
FA-002	The system shall include the capability to attach any number of files at the Declaration level.	O,T	PR-FA 2	5/1/2015	JWH	Tested to Compliance
FA-003	The system shall include the capability to attach any number of files at the Entry level.	O,T	PR-FA 3	5/1/2015	JWH	Tested to Compliance
FA-004	The system shall include the capability of removing attached files.	O,T	PR-FA 4	5/1/2015	JWH	Tested to Compliance
FA-005	The system shall enable the user to open attachments with associated applications defined in the operating system.	O,T	PR-FA 5	5/1/2015	JWH	Tested to Compliance

Table 16. Reference Table 4.3.11 Quality Control (QC), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
QC-001	The system shall employ validation checks and user feedback mechanisms wherever necessary to help ensure all Entry, Declaration, and Submission data meet the format and content requirements specified in the Detail Requirements and Appendix C.	O,T	PR-QC 1	5/5/2015	JWH	Tested to Compliance *Validation Rules exist for all Entries, Declarations, and Submission Types
QC-002	Each validation feedback message shall be identified as an error, warning, or informational message to indicate the severity of the problem.	O	PR-QC 2	5/5/2015	JWH	Tested to Compliance
QC-003	Validation feedback shall contain sufficient detail to help the user correct the problem.	O	PR-QC 3	5/5/2015	JWH	Tested to Compliance
QC-004	The system shall not prevent the use of any functionality in the system as a result of failed validation.	T	PR-QC 4	5/5/2015	JWH	Tested to Compliance
QC-005	Where applicable, the system shall perform quality checks on dates to ensure consistency and correct chronology.	O,T	PR-QC 5	5/5/2015	JWH	Tested to Compliance

Table 16. Reference Table 4.3.11 Quality Control (QC), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
QC-006	Where applicable, the system shall perform quality checks on Entry cross-references and other data to ensure consistency and accuracy.	O,T	PR-QC 6	5/5/2015	JWH	Tested to Compliance
QC-007	If applicable, the system shall provide the user with details of any errors or messages returned from IAEA following electronic transmission of a Submission.	O,T	N/A	N/A	N/A	Removed as the capability no longer exists

Table 17. Reference Table 4.3.12 Reports (RP), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
RP-001	The system shall provide the capability to generate a viewable and printable report of any Submission, including its Declarations and Entries (or any user-selected subset). Detailed descriptions of such reports are provided in Appendix D of this document.	O,T	PR-RP 1	5/5/2015	JWH	Tested to Compliance
RP-002	The system shall provide the capability to generate a viewable and printable report of Submission due dates. A detailed description of the report is provided in Appendix D of this document.	O,T	PR-RP 2	5/5/2015	JWH	Tested to Compliance

Table 17. Reference Table 4.3.12 Reports (RP), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
RP-003	The system shall support multiple print layouts.	O,T	PR-RP 3	5/5/2015	JWH	Tested to Compliance
RP-004	Where applicable, the system shall clearly differentiate Declarable Data from Undeclarable Data in reports.	O	PR-RP 4	5/5/2015	JWH	Tested to Compliance
RP-005	The system shall provide the capability to generate a viewable and printable report of a user-selected collection of one or more Entries. A detailed description of the report is provided in Appendix D of this document.	O,T	PR-RP 5	5/5/2015	JWH	Tested to Compliance

Table 18. Reference Table 4.3.13 User Documentation (UD), PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
UD-001	System help shall include thorough documentation, explanation of major system functions, and reference documents.	T,D	PR-UD 1	N/A	JWH	To be enhanced during beta testing
UD-001.1	System help shall include a copy of the IAEA document, Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards (INFCIRC/540, corrected).	D	PR-UD 1.1	N/A	JWH	To be enhanced during beta testing

Table 18. Reference Table 4.3.13 User Documentation (UD), PR3 SRS, March 2014 (continued)

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
UD-001.2	- System help shall include a copy of the IAEA document, Guidelines and Format for Preparation and Submission of Declarations Pursuant to Articles 2 and 3 of the Model Protocol Additional to Safeguards Agreements (or equivalent document).	D	PR-UD 1.2	N/A	JWH	To be enhanced during beta testing
UD-001.3	- System help shall include an explanation of the determination of due dates, including the significance of the Entry Into Force and As-Of dates.	D	PR-UD 1.3	N/A	JWH	To be enhanced during beta testing
UD-002	Where applicable, access to system help topics shall be context-sensitive.	O,T	PR-UD 2	N/A	JWH	To be enhanced during beta testing
UD-003	Where necessary, help topics shall include examples of Entry, Declaration, and Submission data.	D	PR-UD 3	N/A	JWH	To be enhanced during beta testing

Table 19. Reference 4.4.1 External Interface Requirements, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	External Interface	N/A	N/A	N/A	N/A	At the time of this writing, specific external interface requirements were dependent upon factors outside the scope of this effort. As these factors become better defined, detailed external interface requirements will be identified and documented.

Table 20. Reference 4.4.2 Performance Requirements, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Performance	N/A	N/A	N/A	N/A	There are no special performance requirements for this system.

Table 21. Reference 4.4.3 Design Constraints, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Design Constraints	N/A	N/A	N/A	N/A	The system shall adhere to the scope, terminology, obligations, and specifications of the <i>Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards</i> (INFCIRC/540, corrected).

Table 22. Reference 4.4.4 Standards Compliance, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Standards Compliance	N/A	N/A	N/A	N/A	There are no special standards requirements for this system.

Table 23. Reference 4.4.5 Reliability, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Reliability	N/A	N/A	N/A	N/A	There are no special reliability requirements for this system.

Table 24. Reference 4.4.6 Availability, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Availability	N/A	N/A	N/A	N/A	There are no special availability requirements for this system.

Table 25. Reference 4.4.7 Security, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Security	N/A	N/A	N/A	N/A	At the time of this writing, specific security requirements were dependent upon factors outside the scope of this effort. As these factors become better defined, detailed security requirements will be identified and documented.

Table 26. Reference 4.4.8 Maintainability, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Maintainability	N/A	N/A	N/A	N/A	There are no special maintainability requirements for this system.

Table 27. Reference 4.4.9 Portability, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Portability	N/A	N/A	N/A	N/A	There are no special Portability requirements for this system.

Table 28. Reference 4.4.10 Usability, PR3 SRS, March 2014

Reqmt-ID	Requirement	Test Method	Test Plan ID	Test Date	Tester	Results/Notes
N/A	Portability	N/A	N/A	N/A	N/A	There are no special Usability requirements for this system.

APPENDIX A. ABBREVIATIONS

APPENDIX A. ABBREVIATIONS

AP	Additional Protocol
DOE	U.S. Department of Energy
IAEA	International Atomic Energy Agency
INSEP	International Nuclear Safeguards Engagement Program
ISD	IAEA Declared and Statistical Information Analysis Section
NNSA	National Nuclear Security Administration
PR	Protocol Reporter
PR1	Protocol Reporter version 1.0
PR2	Protocol Reporter version 2.0
PR3	Protocol Reporter version 3.0
SDS	System Design Specification
SG	IAEA Department of Safeguards
SGIM	IAEA Safeguards Information Management
SQA	Software Quality Assurance
SRA	Safeguards Regulatory Authority
SRS	System Requirements Specification
SSAC	State System of Accounting for and Control of Nuclear Material
The Agency	The International Atomic Energy Agency

APPENDIX B. GLOSSARY

APPENDIX B. GLOSSARY

Additional Protocol (AP)	Refers to the additional reporting agreements following the “ <i>Model Protocol Additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Application of Safeguards</i> ” (INFCIRC/540) document
Article 2	That section of an Additional Protocol that defines the types of information that a State must provide to the IAEA.
Article 3	That section of an Additional Protocol that defines the frequencies at which different types of information defined in Article 2 must be provided to the IAEA.
Contributor	An organization or individual in a Member State that is responsible for preparing and submitting a portion of the State’s declaration data to the SRA or to another Contributor or reviewer for eventual submission to the SRA.
Declarable Data	Data in fields that are intended to be transmitted to the IAEA as part of the declaration process. When the PR3 prepares a Submission to be transferred to the IAEA, it will contain only Declarable data.
Declaration	Information submitted to the IAEA by a State about its nuclear program and related activities pursuant to an AP agreement. A Declaration consists of header information and a collection of zero or more entries that apply to a specific paragraph of AP Article 2, in a format that meets the requirements of that article.
Entry	An Entry is a description of a specific activity and/or location for a specific reporting period that is reported to the IAEA pursuant to a specific paragraph of AP Article 2.
Entry Into Force (EIF) Date	The date on which the Agency receives from a State written notification that the State’s statutory and constitutional requirements for entry into force have been met. A State may, at any date before its AP enters into force, declare that it will apply the AP provisionally.
Final Entry	An Entry reporting an activity or location that is completed or closed, for which future updates are not expected to be submitted to the IAEA.

Format Guidelines	An IAEA publication entitled “Guidelines and Format for the Preparation and Submission of the Declarations Pursuant to Article 2 & 3 of the Model Protocol Additional to Safeguards Agreements (May 2004)”.
Legacy Data	For the purposes of this document, legacy data refers to any Declaration data created in Protocol Reporter 1.0 or Protocol Reporter 2.0 format.
No Change Declaration	A Declaration indicating that the information previously submitted under the associated AP Article remains accurate for the indicated reporting period. In a Submission, this indicates that the absence of new information related to that Article is intended. No Change Declarations may include No Change Entries for each activity or location that was previously declared, but this is not required.
No Change Entry	A special case of Update Entry indicating that the information previously submitted for an activity or location remains accurate for the indicated reporting period. In a Declaration, this indicates that the absence of new information related to that activity or location is intended.
Nothing to Declare Declaration	A Declaration indicating that no activities or locations are declarable under the associated AP Article for the indicated reporting period. In a Submission, this indicates that the absence of Declaration data related to that AP Article is intended. If a State has declarable activities or locations, but they have not changed since the last Submission, use a No Change Declaration instead.
Safeguards Regulatory Authority (SRA)	The organization in a Member State responsible for preparing, certifying, and submitting declarations to the IAEA.
Submission	A set of one or more Declarations that are compiled by a State to be provided to the IAEA in accordance with AP Article 3.
Undeclarable Data	Data in fields that are intended to be withheld from the IAEA and used only for internal State record-keeping or for tracking the declaration development process. When the PR3 prepares a Submission to be transferred to the IAEA, it will contain no Undeclarable Data.

Update Entry

An Entry that provides information related to a specific activity or location reported in a previously submitted Entry. The Update Entry shall include a reference to the previous Entry.

APPENDIX C. DATA STRUCTURE

APPENDIX C. DATA STRUCTURE

C.1 Model AP Data Structure

A data structure contains three main types of declarable entities: Submissions, Declarations, and Entries. A Submission contains multiple Declarations, and a Declaration contains multiple Entries. To support development at the Contributor level, Entries may be developed independently of Declarations. Because of this, independent Entries contain several fields that also appear in Declaration headers that will help the SRA organize them into Submissions and Declarations.

Entry Data Structures

Base Entry Data Structure

All Entries, no matter which article, should contain the following fields.

Name	Type	Notes
Internal ID	String	Will be automatically generated (i.e., GUID) by the PR3.
Internal Comments	String	
Contributor	Contributor (see Lookups)	Must contain one.
State	State (see Lookups)	Must contain one.
INFCIRC #	INFCIRC # (see Lookups)	Must contain one.
Data Template	Data Template (see Lookups)	Must contain one.
AP Article	AP Article (see Lookups)	Chosen as part of the creation process. Cannot be changed.
References	Set of References (see Data Types)	May contain zero, one, or many.
Document References	Set of Documents (see Data Types)	May contain zero, one, or many.
Declarable Comments	String	
Local ID	String	Undeclarable field used for the Contributor's local identifier for the activity.
Entry Number	Integer	Only assigned as part of a Submission.
Entry Title	String	To be used as identification to SRA or Contributor users until the Entry is numbered as part of a Submission.
Entry Type	Entry Type (see Lookups)	
Reporting Period Start	Date	Used by SRA to build Submission. Must contain a date value to validate.
Reporting Period End	Date	Used by SRA to build Submission. Must contain a date value to validate.
Final Entry	Boolean	If True, this entry represents the final update for this activity. (Used for IAEA analysis. This does not affect any actions the user could take on this entry.)

Additional Entry fields will also be provided for internal State use. These fields may be labeled by users and their contents will not be included in any submission to IAEA.

Article 2.a.(i) Entry

Name	Type	Notes
Fuel Cycle Stages	Set of Fuel Cycle Stages (see Lookups)	May contain zero, one, or many. Must contain at least one to validate for submittal.
Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Project Title	String	
Project ID	String	
Relationship of Activity to State	String	
Description	String	Must contain a value to validate for submittal.
Organizations	Set of Organizational Involvement (see Data Types)	May contain zero, one, or many.
Objectives	String	
Degree to which Objectives Met	String	
Intended Application	String	
Foreign Collaboration	Set of Foreign Collaboration (see Data Types)	May contain zero, one, or many.
Sublocations	Set of Sublocations (see Data Types)	May contain zero, one, or many.
Project Start Period	Date	
Project End Period	Date	

Article 2.a.(ii) Entry

Name	Type	Notes
Agreed Information	String	

Article 2.a.(iii) Entry

Name	Type	Notes
Site ID	Site Code (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Facility/LOF	String	Free text field, but options may be provided from the Facility/LOF lookup.
MBA Code	String	Free text field, but options may be provided from the MBA Code lookup
Key Measurement Point	String	
Building	String	Must contain a value to validate for submission.
Building Code	String	
Number of Floors	Integer	
Size	Float	
Size Units	Unit of Area (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Use	String	Must contain a value to validate for submittal.

Name	Type	Notes
Previous Use	String	
Contents	String	
Coordinates	GeoCoordinates (see Data Types)	May contain zero or one. Must contain one to validate for submittal.

Article 2.a.(iv) Entry

Name	Type	Notes
Annex I Item	Annex I / Annex I Voluntary Extensions (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Brief Description	String	
Capacity	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Extent Used	Float	
Sublocations	Set of Sublocations (see Data Types)	May contain zero, one, or many.

Article 2.a.(v) Mine/Plant Entry

Name	Type	Notes
Mine/Plant Identifier	Mine/Plant (see Lookups)	May contain zero or one. Must contain one to validate. Other validation rules will vary depending on whether a mine/plant or “State Total” is selected.
Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Operation	Operation (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Status	Operation Status (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Estimated Annual Capacity	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal unless “State Total” is selected for Mine/Plant Identifier.
Actual Current Year Production	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal if “State Total” is selected for Mine/Plant Identifier.

Article 2.a.(v) State Total Entry

Name	Type	Notes
Operation	Operation (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Estimated Annual Capacity	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal unless “State Total” is selected for Mine/Plant Identifier.
Actual Current Year Production	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal if “State Total” is selected for Mine/Plant Identifier.

Article 2.a.(vi).(a) Entry

Name	Type	Notes
Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Chemical Composition	Chemical Composition (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Quantity	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Intended Use Code	Intended Use Code (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Intended Use	String	Must contain a value to validate for submittal.

Article 2.a.(vi).(b) Entry

Name	Type	Notes
Destination	State (see Lookups)	May contain zero or one. Must contain one to validate for submission.
Interim Destinations	Set of States (see Lookups)	May contain zero, one, or many.
Chemical Composition	Chemical Composition (see Lookups)	May contain zero or one. Must contain one to validate for submission.
Quantity	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submission.
Intended Use Code	Intended Use Code (see Lookups)	May contain zero or one. Must contain one to validate for submission.
Intended Use	String	Must contain a value to validate for submission.
Export Date	Date	Must contain a value to validate for submission.

Article 2.a.(vi).(c) Entry

Name	Type	Notes
Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Chemical Composition	Chemical Composition (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Quantity	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Import Date	Date	Must contain a value to validate for submittal.
Exporting State	State (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Intended Use Code	Intended Use Code (see Lookups)	May contain zero or one. Must contain one to validate for submittal.

Article 2.a.(vii) Entry

Name	Type	Notes
Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Exemption	Exemption (see Lookups)	May contain zero or one. Must contain one to validate for submittal.

Name	Type	Notes
Element	Material Code (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Percent Uranium	Float	
Weight	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Intended Use Code	Intended Use Code (see Lookups)	May contain zero or one. Must contain one to validate for submittal.
Intended Use	String	Must contain a value to validate for submittal.

Article 2.a.(viii) Location Change Entry

Name	Type	Notes
Waste Type	String	Must contain a value to validate for submittal.
Number of Items	String	Must contain a value to validate for submittal.
Type of Items	String	Must contain a value to validate for submittal.
Conditioned Form	String	
Quantity Pu	Quantity (see Data Types)	May contain zero or one.
Quantity HEU	Quantity (see Data Types)	May contain zero or one.
Quantity U233	Quantity (see Data Types)	May contain zero or one.
Quantity Np/Am	Quantity (see Data Types)	May contain zero or one.
Previous Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
New Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.

Article 2.a.(viii) Processing Entry

Name	Type	Notes
Waste Type	String	Must contain a value to validate for submittal.
Number of Items	String	Must contain a value to validate for submittal.
Type of Items	String	Must contain a value to validate for submittal.
Conditioned Form	String	
Quantity Pu	Quantity (see Data Types)	May contain zero or one.
Quantity HEU	Quantity (see Data Types)	May contain zero or one.
Quantity U233	Quantity (see Data Types)	May contain zero or one.
Quantity Np/Am	Quantity (see Data Types)	May contain zero or one.
Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Processing Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Start Date	Date	
End Date	Date	
Processing Purpose	String	

Article 2.a.(ix).(a) Entry

Name	Type	Notes
Item Identity	String	Must contain a value to validate for submittal.
Annex II Paragraph	Annex II / Annex II Voluntary Extensions (see Lookups)	May contain zero or one. Must contain one (and be a selectable Annex II item) to validate for submittal.
Quantity	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Location of Intended Use	Location (see Data Types)	May contain zero or one.
Export Date	Date	

Article 2.a.(ix).(b) Entry

Name	Type	Notes
Agency Request Number	String	Should be validated as "MC-CCC-###" or "MC-CCC-##.#" where "CCC" is the country code and "###" or "##.#" is the request number.
Agency Request Date	Date	
Item Identity	String	Must contain a value to validate for submittal.
Annex II Paragraph	Annex II / Annex II Voluntary Extensions (see Lookups)	May contain zero or one. Must contain one (and be a selectable Annex II item) to validate for submittal.
Quantity	Quantity (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Location of Intended Use	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Not Received	Boolean	Per the Formatting Guidelines for 2.a.(ix) Explanation 8, if the import is not yet received "not received" should be entered in the Date field. (This occurs if 2.a.(ix) is submitted as a response to an Agency request.) Suggested alternative: a valid Entry will either contain an Import Date or the Not Received field will be true.
Import Date	Date	To pass validation: <ul style="list-style-type: none"> • Contains a value, and Not Received is not checked, or • Does not contain a value, and Not Received is checked.

Article 2.a.(x) Entry

Name	Type	Notes
Fuel Cycle Stage	Set of Fuel Cycle Stages (see Lookups)	May contain zero, one, or many. Must contain at least one to validate for submittal.
Development Plans	String	
R&D Plans	String	
Collaboration	Set of Foreign Collaboration (see Data Type)	May contain zero, one, or many.

Name	Type	Notes
Organizations	Set of Organization Involvement (see Data Type)	May contain zero, one, or many.

Article 2.b.(i) Entry

Name	Type	Notes
Fuel Cycle Stages	Set of Fuel Cycle Stages (see Lookups)	May contain zero, one, or many. Must contain at least one to validate for submittal.
Location	Location (see Data Types)	May contain zero or one. Must contain one to validate for submittal.
Project Title	String	
Project ID	String	
Description	String	Must contain a value to validate for submittal.
Organizations	Set of Organizational Involvement (see Data Types)	May contain zero, one, or many.
Objectives	String	
Degree to which Objectives Met	String	
Intended Application	String	
Foreign Collaboration	Set of Foreign Collaboration (see Data Types)	May contain zero, one, or many.
Sublocations	Set of Sublocations (see Data Types)	May contain zero, one, or many.
Project Start Period	Date	
Project End Period	Date	

Article 2.b.(ii) Entry

Name	Type	Notes
Agency Request Number	String	Should be validated as "MC-CCC-##" or "MC-CCC-##.#" where "CCC" is the country code and "##" or "##.#" is the request number.
Agency Request Date	Date	
Location	Location (see Data Types)	May contain zero or one. Must contain one to pass validation.
Related Site Code	Site Code (see Lookups)	May contain zero or one. Must contain one to pass validation.
Physical Features	String	
Description of Activities	String	
Sublocations	Set of Sublocations (see Data Types)	May contain zero, one, or many.
Carried Out By	Set of Organization Involvement (see Data Types)	Identity of persons/entities carrying out activities. May contain zero, one, or many.

Article 2.c Entry

Name	Type	Notes
Agency Request Number	String	Should be validated as “MC-CCC-##” or “MC-CCC-##.#” where “CCC” is the country code and “##” or “##.#” is the request number.
Agency Request Date	Date	
Agency Question	String	
Response	String	

Note Entry

Name	Type	Notes
General Description	String	

Submission Data Structure

Submission

Name	Type	Notes
Internal ID	String	Will be automatically generated (i.e., GUID) by the PR3.
Data Template	Data Template (see Lookups)	Must contain one.
Status	Status (see Lookups)	Set to default automatically by the PR3.
Description	String	
State	State (see Lookups)	
Submission Type	Submission Type (see Lookups)	Chosen as part of the creation process. Cannot be changed.
Declaration Date	Date	
Declarable Comments	String	
Internal Comments	String	
Declarations	Set of Declarations	

Additional Submission fields will also be provided for internal State use. These fields may be labeled by users and their contents will not be included in any submission to IAEA.

Declaration

Name	Type	Notes
Internal ID	String	Will be automatically generated (i.e., GUID) by the PR3.
Declaration Number	Integer	
Data Template	Data Template (see Lookups)	Must contain one.
AP Article	AP Article (see Lookups)	Chosen as part of the creation process. Cannot be changed.
Reporting Period Start	Date	Populated with the as-of date for initial declarations. Will not be required for 2.a.(ix).(b) declarations.
Reporting Period End	Date	Populated with the as-of date for initial declarations. Will not be required for 2.a.(ix).(b) declarations.

Name	Type	Notes
		declarations.
Declaration Type	Declaration Type (see Lookups)	Set to default automatically by the PR3.
Details	Declaration Detail	May contain zero or one. May be one of several types of Declaration Details, for declarations that require additional headers.
Declarable Comments	String	
Internal Comments	String	
Entries	Set of Entries	
Document References	Set of Documents (see Data Types)	

Additional Declaration fields will also be provided for internal State use. These fields may be labeled by users and their contents will not be included in any submission to IAEA.

Declaration Details 2.a.(iii)

Name	Type	Notes
Site Code	Site Code (see Lookups)	May contain one or zero.
Working Hours	String	
Site Holidays	Set of Dates	

Declaration Details 2.a.(ix).(b)

Each Declaration is submitted in response to a specific Agency request. A separate Entry is added to the Declaration for each export in the request.

Name	Type	Notes
Agency Request Date	Date	
Agency Request Number	String	Should be validated as "MC-CCC-##" or "MC-CCC-##.#" where "CCC" is the country code and "##" or "##.#" is the request number.

Declaration Details 2.b.(ii)

Each Declaration is submitted in response to a specific Agency request. A separate Entry is added to the Declaration for each location of interest in the request.

Name	Type	Notes
Agency Request Date	Date	
Agency Request Number	String	Should be validated as "MC-CCC-##" or "MC-CCC-##.#" where "CCC" is the country code and "##" or "##.#" is the request number.

Declaration Details 2.c

Each Declaration is submitted in response to a specific Agency request. A separate Entry is added to the Declaration to respond to each question in the request.

Name	Type	Notes
Agency Request Date	Date	
Agency Request Number	String	Should be validated as "MC-CCC-##" or "MC-CCC-##.#" where "CCC" is the country code and "##" or "##.#" is the request number.

Common Data Types

Foreign Collaboration

Name	Type	Notes
State	String	Must contain a value to validate for submittal.
Organization	String	Must contain a value to validate for submittal.
Address	String	Must contain a value to validate for submittal.
Involvement	String	Must contain a value to validate for submittal.

Document

MimeType and FileContents are used for attachments that are embedded in PR3 files. References to paper documents will only use Description, Document Title, and Document Type.

Name	Type	Notes
Document Title	String	Required.
Mime Type	String	
File Contents	Binary (Base64)	
Description	String	
Document Type	String	

GeoCoordinates

Will specify a latitude and longitude. The exact format is TBD, as there are several possible ways to represent this.

Location

Name	Type	Notes
Name	String	Must contain a value to validate for submittal.
Address	String	Must contain a value to validate for submittal.
Coordinates	GeoCoordinates	May contain zero or one. Must contain one to validate for submittal.

Organization Involvement

Name	Type	Notes
Organization	String	Must contain a value to validate for submittal.
Brief Description	String	Must contain a value to validate for submittal.

Quantity

Name	Type	Notes
Value	Float	Must contain a value to validate for submittal.
Units	Unit of Quantity (see Lookups)	Must contain a value to validate for submittal.

Reference

Reference would either use State-Declaration-Entry format (referring to submitted Declarations or Entries in Declarations) or Internal ID (referring to Entries in development). When line items were added to a Submission and numbered, all references would be resolved to State-Declaration-Entry format.

Valid references in State-Declaration-Entry format may contain:

- State, Declaration, and Entry
- Declaration and Entry (for reference to the same State)
- State and Declaration (for reference to a Declaration)
- Declaration (for reference to a Declaration in the same State)

Name	Type	Notes
Reference Type	Reference Type (see Lookups)	Required.
State	String	
Declaration	Integer	
Entry	Integer	
Internal ID	String	Required if Entry not specified.
Notes	String	

Sublocation

Sublocations represent specific locations on a site, such as a building, room, or area.

Name	Type	Notes
Building	String	Must contain a value to validate for submittal.
Room	String	
Subarea	String	
Facility/LOF	String	Free text field, but options may be provided from the Facility/LOF lookup.
Managed Access	Boolean	

Lookup Data

Annex I

Value	Description
i	The manufacture of centrifuge rotor tubes or the assembly of gas centrifuges
ii	The manufacture of diffusion barriers
iii	The manufacture or assembly of laser-based systems
iv	The manufacture or assembly of electromagnetic isotope separators

Value	Description
v	The manufacture or assembly of columns or extraction equipment
vi	The manufacture of aerodynamic separation nozzles or vortex tubes
vii	The manufacture or assembly of uranium plasma generation systems
viii	The manufacture of zirconium tubes
ix	The manufacture or upgrading of heavy water or deuterium
x	The manufacture of nuclear grade graphite
xi	The manufacture of flasks for irradiated fuel
xii	The manufacture of reactor control rods
xiii	The manufacture of criticality safe tanks and vessels
xiv	The manufacture of irradiated fuel element chopping machines
xv	The construction of hot cells

Annex I Voluntary Expansion

Contributors and SRA may define voluntary extensions to Annex I that will be added to any Annex I lookup fields.

Value	Description
TBD by State	TBD by State

Annex II

Only the lowest-level items in each branch of the tree are selectable. Depending on how this data is stored, it might be useful to add either a Parent or Child field, as well as a Selectable flag for each item.

Value	Description
1	Reactors and Equipment Therefor
1.1	Complete nuclear reactors
1.2	Reactor pressure vessels
1.3	Reactor fuel changing and discharging machines
1.4	Reactor control rods
1.5	Reactor pressure tubes
1.6	Zirconium tubes
1.7	Primary coolant pumps
2	Non-Nuclear Materials for Reactors
2.1	Deuterium and heavy water
2.2	Nuclear grade graphite
3	Plants for the Reprocessing of Irradiated Fuel Elements, and Equipment Especially Designed or Prepared Therefor
3.1	Irradiated fuel element chopping machines
3.2	Dissolvers
3.3	Solvent extractors and solvent extraction equipment
3.4	Chemical holding or storage vessels
3.5	Plutonium nitrate to oxide conversion system
3.6	Plutonium oxide to metal production system
4	Plants for the Fabrication of Fuel Elements
4.(a)	Plants for the fabrication of fuel elements includes the equipment which normally comes in direct contact with, or directly processes, or controls, the production flow of nuclear material

Value	Description
4.(b)	Plants for the fabrication of fuel elements includes the equipment which seals the nuclear material within the cladding
5	Plants for the Separation of Isotopes of Uranium and Equipment, Other Than Analytical Instruments, Especially Designed or Prepared Therefor
5.1	Gas centrifuges and assemblies and components especially designed or prepared for use in gas centrifuges
5.1.1	Rotating components
5.1.1.(a)	Complete rotor assemblies
5.1.1.(b)	Rotor tubes
5.1.1.(c)	Rings or bellows
5.1.1.(d)	Baffles
5.1.1.(e)	Top caps/bottom caps
5.1.2	Static components
5.1.2.(a)	Magnetic suspension bearings
5.1.2.(b)	Bearings/dampers
5.1.2.(c)	Molecular pumps
5.1.2.(d)	Motor stators
5.1.2.(e)	Centrifuge housing/recipients
5.1.2.(f)	Scoops
5.2	Especially designed or prepared auxiliary systems, equipment and components for gas centrifuge enrichment plants
5.2.1	Feed systems/product and tails withdrawal systems
5.2.2	Machine header piping systems
5.2.3	UF ₆ mass spectrometers/ion sources
5.2.4	Frequency changers
5.3	Especially designed or prepared assemblies and components for use in gaseous diffusion enrichment
5.3.1	Gaseous diffusion barriers
5.3.2	Diffuser housings
5.3.3	Compressors and gas blowers
5.3.4	Rotary shaft seals
5.3.5	Heat exchanges for cooling UF ₆
5.4	Especially designed or prepared auxiliary systems, equipment and components for use in gaseous diffusion enrichment
5.4.1	Feed systems/product and tails withdrawal systems
5.4.2	Header piping systems
5.4.3	Vacuum systems
5.4.4	Special shut-off and control valves
5.4.5	UF ₆ mass spectrometers/ion sources
5.5	Especially designed or prepared systems, equipment and components for use in aerodynamic enrichment plants
5.5.1	Separation nozzles
5.5.2	Vortex tones
5.5.3	Compressors and gas blowers
5.5.4	Rotary shaft seals
5.5.5	Heat exchangers for gas cooling
5.5.6	Separation element housings
5.5.7	Feed systems/product and tails withdrawal systems
5.5.8	Header piping system

Value	Description
5.5.9	Vacuum systems and pumps
5.5.10	Special shut-off and control valves
5.5.11	UF ₆ mass spectrometers/ion sources
5.5.12	UF ₆ /carrier gas separation systems
5.6	Especially designed or prepared systems, equipment and components for use in chemical exchange or ion exchange enrichment plants
5.6.1	Liquid-liquid exchange columns (chemical exchange)
5.6.2	Liquid-liquid centrifugal contactors (chemical exchange)
5.6.3	Uranium reduction systems and equipment (chemical exchange)
5.6.4	Feed preparation systems (chemical exchange)
5.6.5	Uranium oxidation systems (chemical exchange)
5.6.6	Fast-reacting ion exchange resins/adsorbents (ion exchange)
5.6.7	Ion exchange columns (ion exchange)
5.6.8	Ion exchange reflux systems (ion exchange)
5.7	Especially designed or prepared systems, equipment and components for use in laser-based enrichment plants
5.7.1	Uranium vaporization systems (AVLIS)
5.7.2	Liquid uranium metal handling systems (AVLIS)
5.7.3	Uranium metal 'product' and 'tails' collector assemblies (AVLIS)
5.7.4	Separator module housings (AVLIS)
5.7.5	Supersonic expansion nozzles (MLIS)
5.7.6	Uranium pentafluoride product collector (MLIS)
5.7.7	UF ₆ carrier gas compressors (MLIS)
5.7.8	Rotary shaft seals (MLIS)
5.7.9	Fluorination systems (MLIS)
5.7.10	UF ₆ mass spectrometers/ion sources (MLIS)
5.7.11	Feed systems/product and tails withdrawal systems (MLIS)
5.7.12	UF ₆ /carrier gas separation systems (MLIS)
5.7.13	Laser systems (AVLIS, MLIS and CRISLA)
5.8	Especially designed or prepared systems, equipment and components for use in plasma separation enrichment plants
5.8.1	Microwave power sources and antennae
5.8.2	Ion excitation coils
5.8.3	Uranium plasma generation systems
5.8.4	Liquid uranium metal handling systems
5.8.5	Uranium metal 'product' and 'tails' collector assemblies
5.8.6	Separator module housings
5.9	Especially designed or prepared systems, equipment and components for use in electromagnetic enrichment plants
5.9.1	Electromagnetic isotope separators
5.9.1.(a)	Ion sources
5.9.1.(b)	Ion collectors
5.9.1.(c)	Vacuum housings
5.9.1.(d)	Magnet pole pieces
5.9.2	High voltage power supplies
5.9.3	Magnet power supplies
6	Plants for the Production of Heavy Water, Deuterium and Deuterium Compounds and Equipment Especially Designed or Prepared Therefor
6.1	Water-hydrogen sulfide exchange towers

Value	Description
6.2	Blowers and Compressors
6.3	Ammonia-hydrogen exchange towers
6.4	Tower internals and stage pumps
6.5	Ammonia crackers
6.6	Infrared absorption analyzers
6.7	Catalytic burners
7	Plants for the Conversion of Uranium and Equipment Especially Designed or Prepared Therefor
7.1	Especially designed or prepared systems for the conversion of uranium ore concentrates to UO ₃
7.2	Especially designed or prepared systems for the conversion of UO ₃ to UF ₆
7.3	Especially designed or prepared systems for the conversion of UO ₃ to UO ₂
7.4	Especially designed or prepared systems for the conversion of UO ₂ to UF ₄
7.5	Especially designed or prepared systems for the conversion of UF ₄ to UF ₆
7.6	Especially designed or prepared systems for the conversion of UF ₄ to U metal
7.7	Especially designed or prepared systems for the conversion of UF ₆ to UO ₂
7.8	Especially designed or prepared systems for the convention of UF ₆ to UF ₄

Annex II Voluntary Expansion

Contributors and SRA may define voluntary extensions to Annex I that will be added to any Annex II lookup fields.

Value	Description
TBD by State	TBD by State

AP Article

Value	Description
2.a.(i)	Government-sponsored NFC R&D not involving nuclear material
2.a.(ii)	Information agreed with the Agency to facilitate safeguards implementation
2.a.(iii)	Buildings on sites
2.a.(iv)	Manufacturing, assembly, and construction activities listed in Annex I
2.a.(v) Mine/Plant	Mines and concentration plants
2.a.(v) State Total	Mining and concentration state total
2.a.(vi).(a)	Source material inventories
2.a.(vi).(b)	Source material exports
2.a.(vi).(c)	Source material imports
2.a.(vii)	Safeguards-exempted nuclear material
2.a.(viii) Location Change	Changes in location of intermediate and high level waste
2.a.(viii) Processing	Further processing of intermediate and high level waste
2.a.(ix).(a)	Exports of equipment and non-nuclear material listed in Annex II
2.a.(ix).(b)	Imports of equipment and non-nuclear material listed in Annex II
2.a.(x)	Nuclear fuel cycle R&D ten-year plan
2.b.(i)	Privately-sponsored NFC R&D not involving nuclear material
2.b.(ii)	General description of activities at locations identified by the Agency

Value	Description
2.c	Upon request by the Agency, State to provide Agency with amplifications or clarifications of any information provided under Article 2
Note	

Chemical Composition

Chemical Composition
TBD by IAEA

Contributor

Organization	Address	POC Name	POC Email	POC Phone
TBD by State				

Declaration Type

Value
New information
No change
Nothing to declare
Consolidated update

Entry Type

Value
New entry
No change
Revised entry
Consolidated update

Exemption

Exemption
Article 36b
Article 37

Facility/LOF

Facility/LOF Code list may be used to provide a dropdown/autocomplete list for Facility/LOF fields, but the list will not restrict entry in those fields.

Code	Name
TBD by State/IAEA	TBD by State/IAEA

Fuel Cycle Stages

Fuel Cycle Stage
Conversion of Nuclear Material
Enrichment of Nuclear Material
Nuclear Fuel Fabrication
Reactors
Critical Facilities

Fuel Cycle Stage
Reprocessing of Nuclear Fuel
Processing of Waste
Source Material Recovery

INFCIRC

INFCIRC could be provided as part of the Data Template, rather than a table included in the lookup file.

Number	Description
TBD by IAEA	TBD by IAEA

Intended Use Code

Code	Description
NN	Non-Nuclear
N	Nuclear
ND	Not Designated

Material Code

Code	Description
NU	Natural Uranium
DU	Depleted Uranium
Th	Thorium
Pu	Plutonium
U-233	Uranium-233
E	Enriched Uranium

MBA Code

MBA Code may be used to provide a dropdown/autocomplete list for MBA Code fields, but does not restrict entry in those fields.

Code	Name
TBD by State/IAEA	TBD by State/IAEA

Mine/Plant

A list of mines and plants is updated by the State and is used to identify which locations require actual production to be declared per Agency request.

Operation	Requires Actual Production to be Declared
State Total	Yes
TBD by State/IAEA	TBD by State/IAEA

Operation

Operation
U Mine
U Mine and Concentration

Operation
Th Concentration
Th Mine
U Plants
Th Plants

Operation Status

Operation Status
Operating
Closed Down
Abandoned
Total

Reference Type

Value
Related
Update

Site Code

Code	Name
TBD by IAEA/State from DIQ	TBD by IAEA/State from DIQ

State

Code	Name
TBD by IAEA	TBD by IAEA

Status

Value	Is Read-Only	Is Submitted
In Progress	No	No
Submitted	Yes	Yes
Other statuses TBD	Other statuses TBD	Other statuses TBD

Submission Type

Value	Description
3.a	Initial
3.b	Annual update for initial
3.c	Annual update (source material imports & exports)
3.d	Quarterly update (Annex II exports)
3.e	Annual update (intermediate and high-level waste)
3.f	Response to agency request (2.a.(ii))
3.g	Response to agency request (Annex II imports)
Response to Agency Request	Response to agency Request (2.c)
General	General

Unit of Area

Unit
Square meters
(Other allowed units TBD by IAEA)

Unit of Quantity

Unit
g
Kg
Items
MT
(Other allowed units TBD by IAEA)

AP Article Declarations by Submission Type

Submission Type	Allowed AP Articles	Required AP Articles
3.a	2.a.(i), (iii), (iv), (v), (vi).(a), (vii), (x), 2.b.(i), Note	2.a.(i), (iii), (iv), (v), (vi).(a), (vii), (x), 2.b.(i)
3.b	2.a.(i), (iii), (iv), (v), (vi).(a), (vii), (x), 2.b.(i), Note	2.a.(i), (iii), (iv), (v), (vi)(a), (vii), (x), 2.b.(i)
3.c	2.a.(vi).(b), (vi).(c), Note	2.a.(vi)(b), (vi)(c),
3.d	2.a.(ix).(a), Note	2.a.(ix)(a)
3.e	2.a.(viii), Note	2.a.(viii)
3.f	2.a.(ii), Note	2.a.(ii)
3.g	2.a.(ix).(b), Note	2.a.(ix)(b)
Response	2.b.(ii), 2.c, Note	2.b.(ii), 2.c or response in any format (letter, etc.)
General	2.a.(i), (ii), (iii), (iv), (v), (vi), (vii), (viii), (ix), (x), 2.b.(i), (ii), 2.c, Note	variable

Due dates by Submission Type

Submission Type	Due Date
3.a	Within 180 days after Entry-Into-Force
3.b	by May 15 covering previous year
3.c	by May 15 covering previous year
3.d	Within 60 days after the end of each quarter
3.e	180 days before further processing is carried out, and by May 15 covering previous year
3.f	Agreed upon by State and IAEA
3.g	Within 60 days of IAEA request

Data Template Identification

This will likely be defined in the data template, rather than being a separate lookup value

ID	Display Name	Icon
ModelAP	AP	IAEA logo

C.2 EURATOM EXTENSIONS to the Model AP Data Structure

The EURATOM data template contains the same structure as the Model AP, with the following additions:

Base Entry Data Structure

Name	Type	Notes
Security Level	String	

Declaration

Name	Type	Notes
Security Level	String	

Declaration Details 2.a.(iii)

Name	Type	Notes
Site Contact Details	String	
Geographical Location	String	
Site Holidays	String	
Working Hours	String	
Site Address	String	

Data Template Identification

ID	Display Name	Icon
EURATOM	EURATOM AP	EU flag

C.3 US extensions to the Model AP Data Structure

The US data template contains the same structure as the Model AP, with the following additions:

Base Entry Data Structure

Name	Type	Notes
Internal US Record Keeping Information	String	
U.S. Reporting Code	String	

Article 2.a.(v) Entry

Name	Type	Notes
GPS Coordinates	Set of GeoCoordinates (see Data Types)	

Data Template Identification

ID	Display Name	Icon
USA	US AP	US flag

C.4 AP Data Structure for China

The AP for China uses similar data structures to those used in the Model AP, but with several modifications. It may be implemented as its own template rather than an extension of the Model AP. It is described in relation to the Model AP here to avoid repetition.

This data structure is based on limited information, so it may be incomplete or inaccurate. It will be revised as more information becomes available.

Base Entry Data Structure

The AP for China uses the same base Entry structure as the Model AP.

Article 2.a.(i) Entry

The structure of AP Article 2.a.(i) Entry for China is the same as Article 2.a.(iv) Entry in the Model AP.

Article 2.a.(ii) Mine/Plant Entry

The structure of AP Article 2.a.(ii) Mine/Plant Entry for China is the same as Article 2.a.(v) Mine/Plant Entry in the Model AP.

Article 2.a.(ii) State Total Entry

The structure of AP Article 2.a.(ii) State Total Entry for China is the same as Article 2.a.(v) State Total Entry in the Model AP.

Article 2.a.(iii).(a) Entry

The structure of AP Article 2.a.(iii).(a) Entry for China is the same as Article 2.a.(vi).(b) Entry in the Model AP.

Article 2.a.(iii).(b) Entry

The structure of AP Article 2.a.(iii).(b) Entry for China is the same as Article 2.a.(vi).(c) Entry in the Model AP.

Article 2.a.(iv) Entry

The structure of AP Article 2.a.(iv) Entry for China is the same as Article 2.a.(vii) Entry in the Model AP.

Article 2.a.(v) Export Entry

The AP Article 2.a.(v) Export Entry structure for China is the same as Article 2.a.(viii) Location Change Entry in the Model AP, with the following additional field:

Name	Type	Notes
Export Date	Date	

Article 2.a.(v) Import Entry

The AP Article 2.a.(v) Import Entry structure for China is the same as Article 2.a.(viii) Location Change Entry in the Model AP, with the following additional field:

Name	Type	Notes
Import Date	Date	

Article 2.a.(vi) Entry

The AP Article 2.a.(vi) Entry structure for China is the same as Article 2.a.(ix).(a) Entry in the Model AP.

Article 2.a.(vii) Entry

The AP Article 2.a.(vii) Entry structure for China is the same as Article 2.a.(x) Entry in the Model AP.

Article 2.b Entry

The AP Article 2.b Entry structure for China is the same as Article 2.a.(i) Entry in the Model AP, with the addition of the following fields:

Name	Type	Notes
Agency Request Date	Date	
Agency Request Number	String	Should be validated as "MC-CCC-##" or "MC-CCC-##.#" where "CCC" is the country code and "##" or "##.#" is the request number.

Article 2.c Entry

The AP for China uses the same Article 2.c Entry structure as the Model AP.

Article 2.d Entry

The AP Article 2.d Entry structure for China is the same as Article 2.c Entry in the Model AP.

Note Entry

The AP for China uses the same Note Entry structure as the Model AP.

Submission Data Structure

Submission

The AP for China uses the same Submission structure as the Model AP.

Declaration

The AP for China uses the same Submission structure as the Model AP.

Declaration Details 2.b

Each Declaration is submitted in response to a specific Agency request. A separate Entry is added to the Declaration for each location of interest in the request.

Name	Type	Notes
Agency Request Date	Date	
Agency Request Number	String	Should be validated as "MC-CCC-##" or "MC-CCC-##.#" where "CCC" is the country code and "##" or "##.#" is the request number.

Common Data Types

Foreign Collaboration

The AP for China uses the same Foreign Collaboration structure as the Model AP.

Document

The AP for China uses the same Document structure as the Model AP.

GeoCoordinates

The AP for China uses the same GeoCoordinates structure as the Model AP.

Organization Involvement

The AP for China uses the same Organization Involvement structure as the Model AP.

Quantity

The AP for China uses the same Quantity structure as the Model AP.

Reference

The AP for China uses the same Reference structure as the Model AP.

Sublocation

The AP for China uses the same Sublocation structure as the Model AP.

Lookup Data

The Lookup table structure and data is the same as for the Model AP, with the following exceptions:

AP Articles

Value	Description
2.a.(i)	Annex I Manufacturing Activities in cooperation with NNWS
2.a.(ii)	Mines and Concentration Plants involved in production for NNWS
2.a.(iii).(a)	Pre-Safeguards Source Material Exports to a NNWS (nuclear and non-nuclear use)
2.a.(iii).(b)	Pre-Safeguards Source Material Imports to a NNWS (nuclear and non-nuclear use)
2.a.(iv)	Exempted Nuclear Material processed or used for a NNWS
2.a.(v) Export	Intermediate and High-Level Waste (exports to NNWS)
2.a.(v) Import	Intermediate and High-Level Waste (imports from NNWS)
2.a.(vi)	Exports of Annex II items to a NNWS
2.a.(vii)	General Fuel Cycle Plans in cooperation with NNWS
2.b	Nuclear Fuel Cycle R&D not involving nuclear material in cooperation with NNWS
2.c	Upon request by the Agency, China shall provide amplifications or clarifications of any information provided under Article 2
2.d	Upon request by the Agency, China shall provide confirmation of information submitted by a NNWS

Data Template Identification

ID	Display Name	Icon
China	AP for China	Chinese flag

C.5 AP Data Structure for France

The AP for France uses similar data structures to those used in the Model AP, but with several modifications. It will likely be implemented as its own template, rather than an extension of the Model AP. It is described in relation to the Model AP here to avoid repetition.

Entry Data Structures

Base Entry Data Structure

The AP for France uses the same base Entry structure as the Model AP.

Article 2.a.(i) Entry

The AP for France uses the same Article 2.a.(i) Entry structure as the Model AP, with the following exceptions:

Model AP Field Name	AP for France Field Name
Foreign Collaboration	Information on the NNWS entity
Location	Location of the entity in France

Name	Type	Notes
Location of the activities	Location (see Data Types)	May contain zero or one.
Access information	String	

Article 2.a.(ii) Entry

The AP for France uses the same Article 2.a.(ii) Entry structure as the Model AP.

Article 2.a.(iii) Entry

The AP Article 2.a.(iii) Entry structure for France is the same as Article 2.a.(iv) Entry in the Model AP, but with the following additions and exceptions:

Name	Type	Notes
Information on the NNWS entity	Foreign Collaboration (see Data Types)	May contain zero or one.
Location of the activities	Location (see Data Types)	May contain zero or one.
Access information	String	

Model AP Field Name	AP for France Field Name
Location	Location of the entity in France
Sublocations	Location of the activities and access information

Article 2.a.(iv) Mine/Plant Entry

The AP Article 2.a.(iv) Mine/Plant Entry structure for France is the same as Article 2.a.(v) Mine/Plant Entry in the Model AP.

Article 2.a.(iv) State Total Entry

The AP Article 2.a.(iv) State Total Entry structure for France is the same as Article 2.a.(v) State Total Entry in the Model AP.

Article 2.a.(v).(a) Entry

The AP Article 2.a.(v).(a) Entry structure for France is the same as Article 2.a.(vi).(b) Entry in the Model AP.

Article 2.a.(v).(b) Entry

The AP Article 2.a.(v).(b) Entry structure for France is the same as Article 2.a.(vi).(c) Entry in the Model AP.

Article 2.a.(vi) Export Entry

The AP Article 2.a.(vi) Export Entry structure for France is the same as Article 2.a.(viii) Location Change Entry in the Model AP, with the following additions and removals:

Name	Type	Notes
Export Date	Date	

Model AP Field Name not used in AP for France

Waste Type

Quantity Np/Am

Article 2.a.(vi) Import Entry

The AP Article 2.a.(vi) Import Entry structure for France is the same as Article 2.a.(viii) Location Change Entry in the Model AP, with the following additions and removals:

Name	Type	Notes
Import Date	Date	

Model AP Field Name not used in AP for France

Waste Type

Quantity Np/Am

Article 2.a.(vii).(a) Entry

The AP Article 2.a.(vii).(a) Entry structure for France is the same as Article 2.a.(ix).(a) Entry in the Model AP, except it refers to both Annex I and Annex II:

Name	Type	Notes
Annex I Paragraph	Annex I / Annex I Voluntary Extensions (see Lookups)	May contain zero or one. Must contain one (and be a selectable Annex I item) to validate for submittal.

Article 2.a.(vii).(b) Entry

The AP Article 2.a.(vii).(b) Entry structure for France is the same as Article 2.a.(ix).(b) Entry in the Model AP, except it refers to both Annex I and Annex II:

Name	Type	Notes
Annex I Paragraph	Annex I / Annex I Voluntary Extensions (see Lookups)	May contain zero or one. Must contain one (and be a selectable Annex I item) to validate for submittal.

Article 2.a.(viii) Entry

The AP Article 2.a.(viii) Entry structure for France is the same as Article 2.a.(x) Entry in the Model AP, with the following additions, differences, and removals:

Name	Type	Notes
Information on the NNWS entity	Foreign Collaboration (see Data Types)	May contain zero or one.

Model AP Field Name	AP for France Field Name
R&D Plans	Civil Nuclear Fuel Cycle R&D Ten Year Plan
Organizations	Partner entity in France

Model AP Field Name not used in AP for France
Development Plans

Article 2.b Entry

The AP Article 2.b Entry structure for France is the same as Article 2.b.(i) Entry in the Model AP.

Article 2.c Entry

The AP for France uses the same Article 2.c Entry structure as the Model AP.

Note Entry

The AP for France uses the same Note Entry structure as the Model AP.

Submission Data Structure

Submission

The AP for France uses the same Submission structure as the Model AP.

Declaration

The AP for France uses the same Submission structure as the Model AP.

Common Data Types

Foreign Collaboration

The AP for France uses the same Foreign Collaboration structure as the Model AP.

Document

The AP for France uses the same Document structure as the Model AP.

GeoCoordinates

The AP for France uses the same GeoCoordinates structure as the Model AP.

Organization Involvement

The AP for France uses the same Organization Involvement structure as the Model AP.

Quantity

The AP for France uses the same Quantity structure as the Model AP.

Reference

The AP for France uses the same Reference structure as the Model AP.

Sublocation

The AP for France uses the same Sublocation structure as the Model AP.

Lookup Data

The Lookup table structure and data is the same as for the Model AP, with the following exceptions:

AP Article

Value	Description
2.a.(i)	Description and Location of R&D activities related to a NNWS
2.a.(ii)	Information identified by Agency to increase effectiveness or efficiency at designated facilities
2.a.(iii)	Description of scale of operations for each Location engaged in Activities specified in Annex I and linked to an NNWS
2.a.(iv)	Location, operational status and estimated annual production of Mines and Concentration Plants situated in France involved in production for a NNWS
2.a.(v).(a)	Exports of Source Material from France to NNWS Outside the Community
2.a.(v).(b)	Imports of Source Material to France from NNWS Outside the Community
2.a.(vi) Export	Information regarding exports from a NNWS outside of the Community of intermediate or high level waste containing Pu, HEU or U-233 on which safeguards have been terminated under Article 11
2.a.(vi) Import	Information regarding imports to a NNWS outside of the Community of intermediate or high level waste containing Pu, HEU or U-233 on which safeguards have been terminated under Article 11
2.a.(vii).(a)	Export of Equipment manufactured in the context of the Annex I activities and specified equipment and non-nuclear material listed in Annex II to a NNWS outside of the Community
2.a.(vii).(b)	Import of Equipment manufactured in the context of the Annex I activities and specified equipment and non-nuclear material listed in Annex II from a NNWS outside of the Community
2.a.(viii)	Civil Nuclear Fuel Cycle R&D Ten Year Plan
2.b	Provision of Information regarding Enrichment, Reprocessing or Processing of High Level Waste that is not funded, authorized or controlled by, or carried out on behalf of the France
2.c	Upon request by the Agency, France or Community or Both to provide Agency amplifications or clarifications of any information provided under Article 2

Data Template Identification

ID	Display Name	Icon
France	AP for France	French flag

Submission Type

Value	Description
3.a	Initial
3.b	Annual update for initial
3.c	Annual update
3.d	Quarterly update

Value	Description
3.e	Annual update
3.f	Response to agency request (2.a.(ii))
3.g	Response to agency request (2.a.(vii).(b))
Response to Agency Request	Response to agency Request (2.c)
General	General

AP Article Declarations by Submission Type

Submission Type	Allowed AP Articles	Required AP Articles
3.a	2.a.(i), (iii), (iv), (viii), 2.b, Note	2.a.(i), (iii), (iv), (viii), 2.b.
3.b	2.a.(i), (iii), (iv), (viii), 2.b, Note	2.a.(i), (iii), (iv), (viii), 2.b.
3.c	2.a.(v), Note	2.a.(v)(a)(b)
3.d	2.a.(vii)(a), Note	2.a.(vii)(a)
3.e	2.a.(vi), Note	2.a.(vi)
3.f	2.a.(ii), Note	2.a.(ii)
3.g	2.a.(vii)(b), Note	2.a.(vii)(b)
Response	2.c, Note	2.c.
General	2.a.(i), (ii), (iii), (iv), (v), (vi), (vii), (viii), 2.b, 2.c, Note	variable

C.6 AP Data Structure for Russia

The AP for Russia uses similar data structures to those used in the Model AP, but with several modifications. It will likely be implemented as its own template, rather than an extension of the Model AP. It is described in relation to the Model AP here to avoid repetition.

Entry Data Structures

Base Entry Data Structure

The AP for Russia uses the same base Entry structure as the Model AP.

Article 2.a.(i) Entry

The AP for Russia uses the same Article 2.a.(i) Entry structure as the Model AP, with the following exceptions:

Model AP Field Name	AP for Russia Field Name
Foreign Collaboration	Information on the NNWS entity
Location	Location of the entity in Russia

Name	Type	Notes
Location of the activities	Location (see Data Types)	May contain zero or one.
Access information	String	

Article 2.a.(ii) Entry

The AP for Russia uses the same Article 2.a.(ii) Entry structure as the Model AP.

Article 2.a.(iii) Entry

The AP Article 2.a.(iii) Entry structure for Russia is the same as Article 2.a.(iv) Entry in the Model AP, but with the following additions and exceptions:

Name	Type	Notes
Information on the NNWS entity	Foreign Collaboration (see Data Types)	May contain zero or one.
Location of the activities	Location (see Data Types)	May contain zero or one.
Access information	String	

Model AP Field Name	AP for Russia Field Name
Location	Location of the entity in Russia

Article 2.a.(iv) Mine/Plant Entry

The AP Article 2.a.(iv) Mine/Plant Entry structure for Russia is the same as Article 2.a.(v) Mine/Plant Entry in the Model AP.

Article 2.a.(iv) State Total Entry

The AP Article 2.a.(iv) State Total Entry structure for Russia is the same as Article 2.a.(v) State Total Entry in the Model AP.

Article 2.a.(v).(a) Entry

The AP Article 2.a.(v).(a) Entry structure for Russia is the same as Article 2.a.(vi).(b) Entry in the Model AP.

Article 2.a.(v).(b) Entry

The AP Article 2.a.(v).(b) Entry structure for Russia is the same as Article 2.a.(vi).(c) Entry in the Model AP.

Article 2.a.(vi) Entry

The AP Article 2.a.(vi) Entry structure for Russia is the same as Article 2.a.(viii) Location Change Entry in the Model AP, with the following additions and removals:

Name	Type	Notes
Export Date	Date	

Model AP Field Name not used in AP for Russia
Waste Type
Quantity Np/Am

Article 2.a.(vii).(a)

The AP Article 2.a.(vii).(a) Entry structure for Russia is the same as Article 2.a.(ix).(a) Entry in the Model AP.

Article 2.a.(vii).(b) Entry

The AP Article 2.a.(vii).(b) Entry structure for Russia is the same as Article 2.a.(ix).(b) Entry in the Model AP.

Article 2.b Entry

The AP Article 2.b Entry structure for Russia is the same as Article 2.b.(i) Entry in the Model AP.

Article 2.c Entry

The AP for Russia uses the same Article 2.c Entry structure as the Model AP.

Note Entry

The AP for Russia uses the same Note Entry structure as the Model AP.

Submission Data Structure

Submission

The AP for Russia uses the same Submission structure as the Model AP.

Declaration

The AP for Russia uses the same Submission structure as the Model AP.

Common Data Types

Foreign Collaboration

The AP for Russia uses the same Foreign Collaboration structure as the Model AP.

Document

The AP for Russia uses the same Document structure as the Model AP.

GeoCoordinates

The AP for Russia uses the same GeoCoordinates structure as the Model AP.

Organization Involvement

The AP for Russia uses the same Organization Involvement structure as the Model AP.

Quantity

The AP for France uses the same Quantity structure as the Model AP.

Reference

The AP for Russia uses the same Reference structure as the Model AP.

Sublocation

The AP for Russia uses the same Sublocation structure as the Model AP.

Lookup Data

The Lookup table structure and data is the same as for the Model AP, with the following exceptions:

AP Article

Value	Description
2.a.(i)	Description and location of R&D activities related to a NNWS
2.a.(ii)	Information identified by Agency to increase effectiveness or efficiency at designated facilities
2.a.(iii)	Description of scale of operations for each location engaged in activities specified in Annex I and linked to a NNWS
2.a.(iv)	Location and current annual production of uranium mines and concentration plants and thorium concentration plants in the Russian Federation, involved in production for a NNWS
2.a.(v).(a)	Exports of source material out of the Russian Federation to a NNWS
2.a.(v).(a)	Imports of source material into the Russian Federation from a NNWS
2.a.(vi)	Information regarding exports to a NNWS of intermediate or high-level waste containing Pu, HEU or U-233
2.a.(vii).(a)	Export of specified equipment and non-nuclear material listed in Annex II to a NNWS
2.a.(vii).(b)	Import of specified equipment and non-nuclear material listed in Annex II from a NNWS
2.b	Provision of information regarding enrichment, reprocessing or processing of high-level waste that is not funded, authorized or controlled by, or carried out on behalf of the Russian Federation
2.c	Upon request by the Agency, the Russian Federation shall provide amplifications or clarifications of any information provided under Article 2

Data Template Identification

ID	Display Name	Icon
Russia	AP for Russia	Russian flag

Submission Type

Value	Description
3.a	Initial
3.b	Annual update for initial
3.c	Annual update 2.a.(v), 2.a.(vi)
3.d	Quarterly update
3.e	Response to agency request (2.a.(ii))
3.f	Response to agency request (2.a.(vii)(b))
Response to Agency Request	Response to agency Request (2.c)
General	General

AP Article Declarations by Submission Type

Submission Type	Allowed AP Articles	Required AP Articles
3.a	2.a.(i), (iii), (iv), 2.b, Note	2.a.(i), (iii), (iv), 2.b.
3.b	2.a.(i), (iii), (iv), 2.b, Note	2.a.(i), (iii), (iv), 2.b.
3.c	2.a.(v), 2.a.(vi), Note	2.a.(v)(a)(b), 2.a.(vi)
3.d	2.a.(vii)(a), Note	2.a.(vii)(a)
3.e	2.a.(ii)	2.a.(ii)
3.f	2.a.(vii)(b), Note	2.a.(vii)(b)
Response	2.c, Note	2.c.
General	2.a.(i), (ii), (iii), (iv), (v), (vi), (vii), 2.b, 2.c, Note	variable

C.7 AP Data Structure for the UK

The AP for the UK uses similar data structures to those used in the Model AP, but with several modifications. It will likely be implemented as its own template, rather than an extension of the Model AP. It is described in relation to the Model AP here to avoid repetition.

Entry Data Structures

Base Entry Data Structure

The AP for the UK uses the same base Entry structure as the Model AP.

Article 2.a.(i) Entry

The AP for the UK uses the same Article 2.a.(i) Entry structure as the Model AP.

Article 2.a.(ii) Entry

The AP for the UK uses the same Article 2.a.(ii) Entry structure as the Model AP.

Article 2.a.(iii) Entry

The AP Article 2.a.(iii) Entry structure for the UK is the same as Article 2.a.(iv) Entry in the Model AP.

Article 2.a.(iv) Mine/Plant Entry

The AP Article 2.a.(iv) Mine/Plant Entry structure for the UK is the same as Article 2.a.(v) Mine/Plant Entry in the Model AP.

Article 2.a.(iv) State Total Entry

The AP Article 2.a.(iv) State Total Entry structure for the UK is the same as Article 2.a.(v) State Total Entry in the Model AP.

Article 2.a.(v).(a) Entry

The AP Article 2.a.(v).(a) Entry structure for the UK is the same as Article 2.a.(vi).(b) Entry in the Model AP.

Article 2.a.(v).(b) Entry

The AP Article 2.a.(v).(b) Entry structure for the UK is the same as Article 2.a.(vi).(c) Entry in the Model AP.

Article 2.a.(vi) Entry

The AP Article 2.a.(vi) Entry structure for the UK is the same as Article 2.a.(vii) Entry in the Model AP.

Article 2.a.(vii) Export Entry

The AP Article 2.a.(vii) Export Entry structure for the UK is the same as Article 2.a.(viii) Location Change Entry in the Model AP, with the following additions and removals:

Name	Type	Notes
Export Date	Date	

Model AP Field Name not used in AP for the UK

Waste Type

Quantity Np/Am

Article 2.a.(vii) Import Entry

The AP Article 2.a.(vii) Import Entry structure for the UK is the same as Article 2.a.(viii) Location Change Entry in the Model AP, with the following additions and removals:

Name	Type	Notes
Import Date	Date	

Model AP Field Name not used in AP for the UK

Waste Type

Quantity Np/Am

Article 2.a.(viii).(a) Entry

The AP Article 2.a.(viii).(a) Entry structure for the UK is the same as Article 2.a.(ix).(a) Entry in the Model AP.

Article 2.a.(viii).(b) Entry

The AP Article 2.a.(viii).(b) Entry structure is the same as Article 2.a.(ix).(b) Entry in the Model AP.

Article 2.a.(ix) Entry

The AP Article 2.a.(ix) Entry structure for the UK is the same as Article 2.a.(x) Entry in the Model AP.

Article 2.b Entry

The AP Article 2.b Entry structure for the UK is the same as Article 2.b.(i) Entry in the Model AP.

Article 2.c Entry

The AP for the UK uses the same Article 2.c Entry structure as the Model AP.

Note Entry

The AP for the UK uses the same Note Entry structure as the Model AP.

Submission Data Structure

Submission

The AP for the UK uses the same Submission structure as the Model AP.

Declaration

The AP for the UK uses the same Submission structure as the Model AP.

Common Data Types

Foreign Collaboration

The AP for the UK uses the same Foreign Collaboration structure as the Model AP.

Document

The AP for the UK uses the same Document structure as the Model AP.

GeoCoordinates

The AP for the UK uses the same GeoCoordinates structure as the Model AP.

Organization Involvement

The AP for the UK uses the same Organization Involvement structure as the Model AP.

Quantity

The AP for the UK uses the same Quantity structure as the Model AP.

Reference

The AP for the UK uses the same Reference structure as the Model AP.

Sublocation

The AP for the UK uses the same Sublocation structure as the Model AP.

Lookup Data

The Lookup table structure and data is the same as for the Model AP, with the following exceptions:

AP Article

Value	Description
2.a.(i)	Description and Location of R&D activities related to a NNWS
2.a.(ii)	Information identified by Agency to increase effectiveness or efficiency at designated facilities
2.a.(iii)	Description of scale of operations for each Location engaged in Activities specified in Annex I and linked to an NNWS
2.a.(iv)	Location, operational status and estimated annual production of Mines and Concentration Plants situated in UK involved in production for a NNWS
2.a.(v).(a)	Exports of Source Material to UK from NNWS Outside the Community
2.a.(v).(b)	Imports of Source Material from UK to NNWS Outside the Community
2.a.(vi)	Materials Exempted from Safeguards under Article 37 that are Processed or Used for a NNWS
2.a.(vii) Export	Information Regarding the processing of High Level Waste Containing Pu, HEU or U-233 which have been terminated under Article 11 and have been Exported to a NNWS Outside the Community
2.a.(vii)	Information Regarding the processing of High Level Waste Containing Pu, HEU or

Value	Description
Import	U-233 which have been terminated under Article 11 and have been Imported from a NNWS Outside the Community
2.a.(viii).(a)	Export of Equipment Listed in Annex II to a NNWS Outside the Community
2.a.(viii).(b)	Import of Equipment Listed in Annex II from a NNWS Outside the Community
2.a.(ix)	Civil Nuclear Fuel Cycle R&D Ten Year Plan
2.b	Provision of Information regarding Enrichment, Reprocessing or Processing of High Level Waste that is not funded, authorized or controlled by, or carried out on behalf of the UK
2.c	Upon request by the Agency, UK or Community or Both to provide Agency amplifications or clarifications of any information provided under Article 2

Data Template Lookup

ID	Display Name	Icon
UK	AP for the UK	UK flag

Submission Type

Value	Description
3.a	Initial
3.b	Annual update for initial
3.c	Annual update (2.a.(v))
3.d	Quarterly update
3.e	Annual update ((2.a.(vii))
3.f	Response to agency request (2.a.(ii))
3.g	Response to agency request (2.a.(viii)(b))
Response to Agency Request	Response to agency Request (2.c)
General	General

AP Article Declarations by Submission Type

Submission Type	Allowed AP Articles	Required AP Articles
3.a	2.a.(i), (iii), (iv), (vi), (ix), 2.b, Note	2.a.(i), (iii), (iv), (vi), (ix), 2.b.
3.b	2.a.(i), (iii), (iv), (vi), (ix), 2.b, Note	2.a.(i), (iii), (iv), (vi), (ix), 2.b.
3.c	2.a.(v), Note	2.a.(v)(a)(b)
3.d	2.a.(viii)(a), Note	2.a.(viii)(a)
3.e	2.a.(vii), Note	2.a.(vii)
3.f	2.a.(ii), Note	2.a.(ii)
3.g	2.a.(viii)(b), Note	2.a.(viii)(b)
Response	2.c, Note	
General	2.a.(i), (iii), (iv), (vi), (vii), (viii), (ix), 2.b, 2.c, Note	Variable

APPENDIX D. TEST PROCEDURE AND RESULTS

APPENDIX D. TEST PROCEDURE AND RESULTS

This Test Procedure applies to the integration and system tests that will be conducted on the **Protocol Reporter 3** system release 3.0. Testing criteria apply to all requirements and subsequent amendments to the **Protocol Reporter 3** System Requirements Specification 1.0 dated **March 2014**.

Operation Environment

- Description**—Operation Environment
Expected results—The system shall be able to operate on a single Windows-based computer. The tester will start the program and verify that the main screen is functioning.
Tested on- 23 April 2015 **Tester-** JWH
Notes—**Interface opened with no problems**
- Description**—Operation Environment
Expected results—The system shall be capable of running on either 32-bit or 64-bit computing platforms. Once the system has started, the tester will check the computing platform of the specific machine used.
Tested on- 23 April 2015 **Tester-** JWH
Notes—**The computer used to administer the test is a 64 bit machine.**
- Description**—Operation Environment
Expected results—The system shall be capable of running under Microsoft Windows XP operating system and later versions of Windows through Windows 8.1. Upon startup of the computer, the tester will verify which operating system the computer is running.
Tested on- 23 April 2015 **Tester-** JWH
Notes—**The computer used to administer the test is running Windows 7 Enterprise**
- Description**—Operation Environment
Expected results—Installation and operation of the system shall not require additional software or special environments that lead to the need for supplementary software licenses.
Tested on- 23 April 2015 **Tester-** JWH
Notes—**The user was not prompted to download any additional software upon launching the software.**

5. Description—Operation Environment

Expected results—Human-readable source code for the system shall be available to the State. The tester will log in as associates from different States in the menu and will verify that the information available is the same.

Tested on- N/A **Tester-** N/A

Notes—This will not be available until release. It will be more an issue of distribution than the PR3 itself, so testing of this requirement might not be needed. Once released, the team will reconsider testing.

System Configuration

1. Description—System Configuration

Expected results—At a minimum, the system shall support a single-user standalone installation with no network connection. The tester will need to disconnect from the network to verify that the system will still work under these conditions.

Tested on- 29 April 2015 **Tester-** KMH

Notes—Tested to Compliance

2. Description—System Configuration

Expected results—The system shall not require user authentication to operate. This requirement does not apply to any function that electronically transmits or receives Submission data from Agency systems. The tester will open the software, and the system should not require a password.

Tested on- 23 April 2015 **Tester-** JWH

Notes—Tested to Compliance The system did not ask me for a login/password

3. Description—System Configuration

Expected results—Installation and use of the system shall not require reconfiguration (i.e., changing the default date format) of the target computer.

Tested on- 23 April 2015 **Tester-** JWH

Notes—Tested to Compliance No reconfiguration required

System Architecture

1. Description—System Architecture

Expected results—The system shall support both the Entry and Submission development in the SRA mode.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to compliance—Mode toggle is in top right-hand corner. Only Entries exist in the Contributor mode.

2. Description—System Architecture

Expected results—A user will be able to create an Entry without the knowledge of the Submission it will be a part of. In the Contributor mode, it is possible to see only the functions related to the entries.

Tested on- 27 April 2015 **Tester-** JWH

Notes—**Tested to Compliance in the Contributor mode.**

3. Description—System Architecture

Expected results—At the SRA level, the user shall be able to create a Submission from the following:

- Directly creating Entries in Declarations
- By adding existing Entries into Declarations
- By adding existing Entries in at the Submission level, which will create Declarations as needed
- Any combination of the above.

Tested on- 27 April 2015 **Tester-** JWH

Notes—**Tested to Compliance in the SRA mode.**

4. Description—System Architecture

Expected results—The system shall be able to accommodate and apply different data structures for different states in accordance with the requirements of their specific AP agreements. The tester will change selected States to ensure that the correct AP agreements are taken into account.

Tested on- N/A **Tester-**N/A

Notes—**N/A-** as of now, there is only one template.

5. Description—System Architecture

Expected results—Model Additional Protocol

Tested on- 01 June 2015 **Tester-** JWH

Notes—**Tested to Compliance.**

6. Description—System Architecture

Expected results—United Kingdom

Tested on- N/A **Tester-**N/A

Notes—**N/A-** As of now, there is only one template.

7. Description—System Architecture

Expected results—France

Tested on- N/A **Tester-**N/A

Notes—**N/A-** As of now, there is only one template.

- 8. Description**—System Architecture
Expected results—People’s Republic of China
Tested on- N/A **Tester-N/A**
Notes—N/A- As of now, there is only one template.
- 9. Description**—System Architecture
Expected results—Russia
Tested on- N/A **Tester-N/A**
Notes—N/A- As of now, there is only one template.
- 10. Description**—System Architecture
Expected results—Other TBD structures based upon future Agency agreements.
Tested on- N/A **Tester-N/A**
Notes—N/A- As of now, there is only one template.
- 11. Description**—System Architecture
Expected results—The system shall allow the user to select which data template the system will use when creating Entries, Declarations, and Submissions.
Tested on- N/A **Tester-N/A**
Notes—N/A- As of now, there is only one template.
- 12. Description**—System Architecture
Expected results—The system shall not require installation of a separate database server.
Tested on- 23 April 2015 **Tester- JWH**
Notes—The system is functioning without any additional installations.

Data Requirements

Declarable Data

1. **Description**—Declarable Data

Expected results—The system shall support the creation and management of information that meets the requirements set forth in Article 2 and Article 3 of the AP with file attachments.

Tested on- 05 June 2015 **Tester-** JWH

Notes—Tested to Compliance- 2.a.v was divided in two.

2. **Description**—Declarable Data

Expected results—A valid Entry is a collection of specific information in a format that meets the requirements of the AP article to which the Entry applies. The required data structure for each type of Entry is listed in Appendix C of this document. The tester will attempt to enter a noncompliant entry and see what happens upon saving.

Tested on- 23 April 2015 **Tester-** JWH

Notes—Tested to Compliance- When attempting to submit a noncompliant entry, the error bar popped up and informed me as to what was missing.

3. **Description**—Declarable Data

Expected results—An Entry can exist independently, without a relationship or reference to any Declaration or Submission.

Tested on- 23 April 2015 **Tester-** JWH

Notes—Tested to Compliance- The entries can be merely saved; they do not need to be submitted.

4. **Description**—Declarable Data

Expected results—A Declaration consists of header information and a collection of zero or more entries that apply to a specific AP article in a format that meets the requirements of that article. The required data structure for each type of Declaration is listed in Appendix C.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

5. Description—Declarable Data

Expected results—A valid Declaration is one that contains all required header information (as defined in Appendix C) and contains one and only one of the following.

An affirmative indication that it is a “No Change” declaration, indicating that the information provided in the previously submitted active declaration for the corresponding article still stands, or An affirmative indication that there is “Nothing to Declare” for the associated article, or A collection or list of one or more valid Entries for the associated article.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

6. Description—Declarable Data

Expected results—A Submission is a collection of one or more Declarations that apply to a specific Submission Type as defined in AP Article 3, along with header information in a format that meets the requirements of that Submission Type. The required data structure for each type of Submission is listed in Appendix C of this document. Submissions are located only in the SRA data mode, and are not “ready for agency” unless all fields are addressed.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

7. Description—Declarable Data

Expected results—A Submission can exist independently, without a relationship to or “knowledge” of any Declaration or Entry. It is possible to create, save, and export an empty submission.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

8. Description—Declarable Data

Expected results—Submission content is identified in terms of Article 3 of the *Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards*. For example, 3.a type Submission will expect only Declarations identified under Article 3.a and Notes.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

9. Description—Declarable Data

Expected results—A valid Submission contains all required header information and contains a collection of one or more Declarations that meet the requirements of Article 3 for that Submission Type. The tester will input data that does NOT meet the Article 3 requirements and see if the system responds accordingly.

Tested on- 29 April 2015 Tester- JWH

Notes—Tested to Compliance.

10. Description—Declarable Data

Expected results—Unless prescribed otherwise by a Submission template, Declaration content is identified in terms of Article 2 of the *Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards*. This includes Article 2.c.

Tested on- 29 April 2015 Tester- JWH

Notes—Tested to Compliance.

11. Description—Declarable Data

Expected results—The system shall be capable of tracking Article 2.c support files, such as letters, maps, and copies of correspondence (see File Attachments for related requirements).

Tested on- 27 April 2015 Tester- JWH

Notes—Tested to Compliance.

12. Description—Declarable Data

Expected results—Data entry fields shall be displayed in such a way as to easily distinguish between declarable data fields that will be submitted to the IAEA, and internal data fields that will not be submitted to the IAEA, and they are reserved for State use. The tester will enter information and then verify it is only appearing in the appropriate data field.

Tested on- 27 April 2015 Tester- JWH

Notes—Tested to Compliance. The internal data are highlighted blue to differentiate.

Internal Data

1. **Description—Internal Data**

Expected results—The system shall generate an internal unique identifier for each Entry, Declaration, and Submission. The tester will confirm this by entering three entries, one for Entry, Declaration, and Submission accordingly, and ensuring they remain as listed upon submission.

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

2. **Description--—Internal Data**

Expected results—The system shall allow status information to be tracked for Entry, Declaration, and Submission (see Entry and Submission Status section for related requirements).

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

3. **Description--—Internal Data**

Expected results—The system shall support the entry of internal data at the Submission level. These internal data are for use by State authorities and are not included in the submission to the IAEA.

Tested on 29 April 2015- **Tester-** JWH

Notes—Tested to Compliance.

4. **Description--—Internal Data**

Expected results—The system shall support the entry of internal data at the Declaration level. These internal data are for use by State authorities and are not included in the submission to the IAEA. The tester will verify that these internal data remain in the database following entry.

Tested on- 29 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

5. **Description--—Internal Data**

Expected results—The system shall support the entry of internal data at the Entry level. These internal data are for use by State authorities and are not included in the Submission to the IAEA. The tester will verify that these internal data remain in the database following entry.

Tested on- 29 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

Lookup Data

1. Description—Lookup Data

Expected results—The system shall load lookup files containing choices for enumerated fields provided by both the IAEA and the State. The tester shall upload a file and verify that the appropriate fields are populated upon submission.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance

2. Description—Lookup Data

Expected results—The system shall allow the user to manually update lookup tables not provided by the IAEA. The tester will update one of the tables and then verify the changes were saved.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance. *To be successful, the file name must be changed prior to uploading.

3. Description—Lookup Data

Expected results—The system shall allow the user to export State-maintained lookup tables to a file that can be loaded into another instance of the system.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

4. Description—Lookup Data

Expected results—A user shall be able to replace State-maintained lookup data from a file with existing State lookup data, and the same goes for Contributor data.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance. In order to be replaced, the file must have the .pr3l extension.

5. Description—Lookup Data

Expected results—The system shall allow users to view the contents of lookup files and relevant revision information.

Tested on- 01 June 2015 **Tester-** JWH

Notes—Tested to Compliance. Settings/Lookup Data.

Process Requirements

1. **Description**—Entry and Submission Statuses
Expected results—Entries shall have a Status field representing their current state in the declaration development process.
Tested on- 27 April 2015 **Tester-** JWH
Notes—Tested to Compliance. *Depending on the status, it may not be possible to edit the entry.
2. **Description**—Entry and Submission Statuses
Expected results—Submissions shall have a Status field representing their current state in the declaration development process.
Tested on- 27 April 2015 **Tester-** JWH
Notes—Tested to Compliance. *Depending on the status, it may not be possible to edit the entry.
3. **Description**—Entry and Submission Statuses
Expected results—There shall be at least two categories of statuses.
Tested on- 27 April 2015 **Tester-** JWH
Notes—Fail. Tested to Compliance.
4. **Description**—Entry and Submission Statuses
Expected results—Statuses representing in-development declaration data, which are fully editable.
Tested on- 27 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
5. **Description**—Entry and Submission Statuses
Expected results—Statuses representing completed or submitted declaration data, which are read only.
Tested on- 27 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
6. **Description**—Entry and Submission Statuses
Expected results—Users may change the status of an Entry or Submission because the purpose of the status field is for users to track their own progress.
Tested on- 27 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
7. **Description**—Entry and Submission Statuses
Expected results—Validation or other process requirements shall not restrict status changes.
Tested on- 01 June 2015 **Tester-** JWH
Notes—Tested to Compliance. However, validation is problematic (Look Up Data not present due to settings bug).

8. Description—Entry and Submission Statuses

Expected results—Status may be changed automatically by certain actions within the system (e.g., “submitted to agency” will be set on “export for agency”).

Tested on- 01 June 2015 Tester- JWH

Notes—Tested to Compliance.

Manage Submissions

1. Description—Manage Submissions

Expected results—The system shall provide the capability to create a new Submission in the SRA mode. Submission contents and properties are described in Appendix C of this document.

Tested on- 27 April 2015 Tester- JWH

Notes—Tested to Compliance.

2. Description—Manage Submissions

Expected results—The user shall be able to manage Declarations as part of a Submission (see Manage Declarations for related requirements).

Tested on- 27 April 2015 Tester- JWH

Notes—Tested to Compliance.

3. Description—Manage Submissions

Expected results—The system shall provide the capability to import a Submission (see Import/Export for related requirements) from legacy formats (XML).

Tested on- 01 May 2015 Tester- JWH

Notes—Tested to Compliance.

4. Description—Manage Submissions

Expected results—The system shall provide the capability to edit the properties of a Submission.

Tested on- 27 April 2015 Tester- JWH

Notes—Tested to Compliance.

5. Description—Manage Submissions

Expected results—The system shall provide a warning to the user before deleting a Submission.

Tested on- 27 April 2015 Tester- JWH

Notes—Tested to Compliance.

6. Description—Manage Submissions

Expected results—The system shall be capable of exporting a Submission to a format that can be submitted to the IAEA (see Import/Export and Quality Control for related requirements).

Tested on- 27 April 2015 Tester- JWH

Notes—Tested to Compliance

7. **Description**—Manage Submissions

Expected results—The system shall allow a Submission to be created based on previously Submitted entries. Each entry is marked as “update” by default with the possibility to denote each entry as “No Change.”

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

8. **Description**—Manage Submissions

Expected results—When creating a new Submission to update previous entries, the default reporting period dates shall be generated automatically.

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

Manage Declarations

1. **Description**—Manage Declarations

Expected results—The system shall provide the capability to create a Declaration. Declaration contents and properties are described in Appendix C of this document.

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

2. **Description**—Manage Declarations

Expected results—The system shall allow a Declaration to be created based on previously submitted entries. Each entry is marked as “update” by default with the possibility to denote each entry as “No Change.”

Tested on- N/A **Tester-** N/A

Notes—This is now done through “Prepare Update Entries” in the Data Manager.

You will not be able to mark Entries or Declarations “No Change” in Prepare Update Entries; that will be done in the Entry or Submission Editor. (This ensures that a user cannot just mark every item without looking at all of them.)

Expected results—The system shall allow a Declaration to be created based on previously submitted entries. Each entry is marked as “update” by default with the possibility to denote each entry as “No Change.”

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

3. **Description**—Manage Declarations

Expected results—The user shall be able to manage Entries as part of a Declaration (see Manage Entries for related requirements).

Tested on- 27 April 2015 **Tester-** JWH

Notes—Tested to Compliance

4. **Description**—Manage Declarations
Expected results—A user shall be able to add existing Entries for a given Article to a Declaration for the same Article.
Tested on- 29 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

5. **Description**—Manage Declarations
Expected results—A Declaration shall not be considered valid unless it includes at least one Entry for the associated Article or is marked as either “No Change” or “Nothing to Declare.”
Tested on- 04 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

6. **Description**—Manage Declarations
Expected results—A Declaration marked as “Nothing to Declare” shall not contain Entries. A Declaration marked as “No Change” shall either contain no Entries, or it shall only contain “No Change” Entries.
Tested on- 04 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

7. **Description**—Manage Declarations
Expected results—The system shall provide the capability of entering Declaration data.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

8. **Description**—Manage Declarations
Expected results—The system shall provide the capability to edit an existing Declaration.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

9. **Description**—Manage Declarations
Expected results—The system shall provide the capability to delete a Declaration.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

10. **Description**—Manage Declarations
Expected results—Where practical, the system shall use structured fields in place of general text fields that cannot be easily validated.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

11. Description—Manage Declarations

Expected results—The system shall provide the capability of attaching any number of files to a Declaration (see File Attachments for related requirements).

Tested on- 01 May 2015 **Tester-** JWH **Notes-**

Notes—Tested to Compliance.

12. Description--- Manage Declarations

Expected results—The system shall provide the capability of displaying sorted Entries within a Declaration by Entry number or by another column selected by the user.

Tested on- 28 April 2015 **Tester-** JWH

Notes-Tested to Compliance.

13. Description—Manage Declarations

Expected results—The process of validating a Declaration shall also validate its Entries.

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

14. Description—Manage Declarations

Expected results—To avoid re-entry of the same data, the system shall automatically generate default reporting period and “as-of” dates where practical.

Tested on- N/A **Tester-** N/A

Notes—Not yet implemented.

15. Description—Manage Declarations

Expected results—Default reporting periods and “as-of” dates should be easily changeable by the user.

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

16. Description---- Manage Declarations

Expected results—If there are multiple Declarations in an Initial Submission or the first update for a given Article, then those Declarations may have different “as-of” dates.

Tested on- 29 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

Manage Entries

1. Description—Manage Entries

Expected results—The system shall provide the capability to create Entries.

Tested on- 28 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

2. **Description**—Manage Entries
Expected results—The system shall provide the capability to create a new Entry by copying an existing Entry.
Tested on- N/A **Tester-** N/A
Notes—Requirement to be removed pending Agency approval.

3. **Description**—Manage Entries
Expected results—The system shall allow the user to include any number of Entries in a Declaration (SRA MODE).
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

4. **Description**—Manage Entries
Expected results—The system shall provide the capability to edit an existing Entry.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

5. **Description**—Manage Entries
Expected results—The system shall provide the capability to edit a previously submitted Entry by changing the status of the Entry (or the Submission containing it) to one that allows editing.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance. *Changed to Ready for SRA Review, and back to “Draft.”

6. **Description**—Manage Entries
Expected results—The system shall allow an Entry to be created based on a previous Entry, with the possibility to denote it as “Update” or “No Change.”
Tested on- 04 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

7. **Description**—Manage Entries
Expected results—The system shall display a warning before allowing the user to create an Update Entry for a previously submitted Final Entry.
Tested on- N/A **Tester-** N/A
Notes—Will add a “validation warning” for a previously submitted Final Entry.

8. **Description**—Manage Entries
Expected results—The system shall provide the capability to delete an Entry.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

- 9. Description**—Manage Entries
Expected results—The system shall provide the capability of displaying Entries sorted by a column selected by the user.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 10. Description**—Manage Entries
Expected results—The system shall provide the capability of attaching any number of files to an Entry (see File Attachments for related requirements).
Tested on- 01 May 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 11. Description**—Manage Entries
Expected results—The system shall provide the same functions for managing an Entry whether or not it is part of a Declaration.
Tested on- 29 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 12. Description**—Manage Entries
Expected results—The system shall provide methods for validating an Entry for correctness and completeness, and the user shall be able to execute validation when editing or viewing an Entry.
Tested on- 04 June 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 13. Description**—Manage Entries
Expected results—It shall be possible to transfer Entries to other users via export/import functions.
Tested on- 29 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 14. Description**—Manage Entries
Expected results—If Entries are not stored in individual files by default, it shall be possible to export and import them to and from the file system.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 15. Description**—Manage Entries
Expected results—The system shall allow input of multiple fuel cycle stages for Article 2.a.(i), 2.a.(x), and 2.b.(i) Entries.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance w 2.a.i, x., b.i.

16. Description—Manage Entries

Expected results—For Article 2.a.(ix) Entries, the system shall allow only the year or only the year and month to be entered in case the exact export date is not available.

Tested on- 28 April 2015 Tester- JWH

Notes—Tested to Compliance – only month and year were given.

Declaration and Entry Numbering

1. Description—Declaration and Entry Numbering

Expected results—By default, the first declaration created in the system shall be numbered “1.” Subsequent declarations shall be numbered sequentially within each submission and shall continue sequentially from one submission to the next.

Tested on- 28 April 2015 Tester- JWH

Notes—Tested to Compliance.

2. Description—Declaration and Entry Numbering

Expected results—By default, the system shall automatically renumber Declarations as they are added to, removed from, or re-ordered within a Submission to achieve sequential numbering with no gaps.

Tested on- 28 April 2015 Tester- JWH

Notes—Tested to Compliance.

3. Description—Declaration and Entry Numbering

Expected results—It shall be possible to specify the starting number for automatically numbering declarations within a submission. This may be used to specify a number other than “1” for the first Declaration in the first Submission.

Tested on- 28 April 2015 Tester- JWH

Notes—Tested to Compliance.

4. Description—Declaration and Entry Numbering

Expected results—By default, the system shall automatically renumber Entries as they are added to or removed from a Submission, or it shall renumber a Declaration to achieve sequential numbering with no gaps.

Tested on- 28 April 2015 Tester- JWH

Notes—Tested to Compliance.

Entry Cross-Referencing

1. **Description**—Entry Cross-Referencing
Expected results—The system shall provide the capability for an Entry to cross-reference any number of other Entries, either within the same and/or another Submission.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
2. **Description**—Entry Cross-Referencing
Expected results—The system shall provide the capability for an Entry to cross-reference any number of Declarations within the same and/or another Submission.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
3. **Description**—Entry Cross-Referencing
Expected results—A cross-reference shall consist of the Declaration and Entry Number of the related entry.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
4. **Description**—Entry Cross-Referencing
Expected results—Within the same Submission, if Entry “A” refers to Entry “B,” then Entry “B” shall automatically refer to Entry “A.”
Tested on- N/A **Tester-** N/A
Notes—Will be implemented during Beta.
5. **Description**—Entry Cross-Referencing
Expected results—Where applicable, the system shall perform quality check to ensure that if Entry “A” references Entry “B,” Entry “B” references Entry “A” as well.
Tested on- N/A **Tester-** N/A
Notes—Will be implemented during Beta.
6. **Description**—Entry Cross-Referencing
Expected results—The system shall support viewing the referenced Entry from the referencing Entry if the referenced Entry is available.
Tested on- 04 June 2015 **Tester-** JWH
Notes—Partial Compliance: Does not provide links when entered manually; will be enhanced during Beta.
7. **Description**—Entry Cross-Referencing
Expected results—It shall be possible to delete a Reference.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

8. Description—Entry Cross-Referencing

Expected results—If Declarations or Entries within a Submission are renumbered, all References within that Submission shall be updated to reflect the new numbers.

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

Data Entry

1. Description—Data Entry

Expected results—Data validation shall be available where practical on all entry screens.

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

2. Description—Data Entry

Expected results—Data entry fields shall be displayed in such a way as to easily distinguish between which elements the IAEA considers mandatory and those considered optional.

Tested on- 04 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

3. Description—Data Entry

Expected results—Printable output of Declarations or Submissions not intended for paper transfer to the IAEA shall include the designation, “Not valid for submission to the IAEA until certified by the State.”

Tested on- N/A **Tester-** N/A

Notes—To be enhanced during Beta Testing.

4. Description—Data Entry

Expected results—Where appropriate (e.g., editable lookup data), the system shall provide a means for States to manage their own validation lists.

Tested on- 28 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

5. Description—Data Entry

Expected results—Where data are displayed in a grid, the system shall allow the user to change the column order and width.

Tested on- 28 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

Search, Filter, and Navigate

1. Description—Search, Filter, and Navigate

Expected results—The system shall provide the capability of searching Declaration data.

Tested on- 29 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

2. **Description**—Search, Filter, and Navigate
Expected results—Search using the “DeclarationNumber” prefix (e.g., “DeclarationNumber:1”)
Tested on- 04 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

3. **Description**—Search, Filter, and Navigate
Expected results—Specific AP Article searches (for example, 2.a.i) will return only entries that match. Must use Lucene syntax for success.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

4. **Description**—Search, Filter, and Navigate
Expected results—Declaration date(s) must use Lucene syntax for success.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.

5. **Description**—Search, Filter, and Navigate
Expected results—Cross-reference: Search with the References.Number prefix (e.g., “References.Number:Ruritania-1-1” or “References.Number:1-1”).
Tested on- 04 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

6. **Description**—Search, Filter, and Navigate
Expected results—The system shall include the capability of performing a full-text search (including Boolean operators and wildcards) across all data that are accessible by the system. Searches are OR by default. You can use AND and NOT between phrases/words. You can also use wildcards as long as they are not the first character (e.g., “nucl*”).
Tested on- 04 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

7. **Description**—Search, Filter, and Navigate
Expected results—It shall be possible to easily filter, navigate, and browse Entries within a Declaration.
Tested on- N/A **Tester-** N/A
Notes—N/A. Does not contain filter, but does allow for navigation and browsing. Filtering may not be implemented pending Agency feedback.

Import/Export

1. **Description**—Import/Export

Expected results—The system shall be capable of importing files of text-delimited Submissions as defined in Protocol Reporter 1.0 export format even if the file to be imported includes validation errors.

Tested on- 05 June 2015 **Tester-** JWH

Notes—Tested to Compliance

2. **Description**—Import/Export

Expected results—The system shall be capable of importing files of text-delimited Submissions as defined in Protocol Reporter 2.0 export format (XML) even if the file to be imported includes validation errors.

Tested on- 05 June 2015 **Tester-** JWH

Notes—Tested to Compliance.

3. **Description**—Import/Export

Expected results—The system shall be capable of importing files of .xml Submissions as defined in Protocol Reporter 2.0 export format even if the file to be imported includes validation errors.

Tested on- 28 April 2015 **Tester-** JWH

Notes—Tested to Compliance for an import.

4. **Description**—Import/Export

Expected results—By default, legacy data shall be imported in read-only format.

Tested on- 05 June 2015 **Tester-** JWH

Notes—Tested to Compliance. Files cannot be edited even if the status is changed from “Submitted” to “Draft.”

5. **Description**—Import/Export

Expected results—A user may opt to convert legacy data into an editable format.

Tested on- 05 June 2015 **Tester-** JWH

Notes—Tested to Compliance. By default, legacy data are converted to the PR3 format.

6. **Description**—Import/Export

Expected results—The system shall notify the user and provide details if an import or export fails.

Tested on- 28 April 2015 **Tester-** JWH

Notes—Tested to Compliance for an import. Not sure how to make an exported file “fail.”

7. **Description**—Import/Export

Expected results—The system must be capable of deleting any imported data.

Tested on- 28 April 2015 **Tester-** JWH

Notes—Tested to Compliance.

- 8. Description**—Import/Export
Expected results—The ability to import and export files shall be a standard feature of the system and not require special activation to enable.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 9. Description**—Import/Export
Expected results—The system shall be capable of importing any output exported by the system.
Tested on- 28 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 10. Description**—Import/Export
Expected results—All data exported by the system shall be in human-readable format.
Tested on- 29 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 11. Description**—Import/Export
Expected results—The system shall support export data containing extended characters (e.g., letters from a non-roman alphabet).
Tested on- 29 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 12. Description**—Import/Export
Expected results—Data shall be exported without adding to or changing its content; data have not been deleted or appended.
Tested on- 29 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 13. Description**—Import/Export
Expected results—Where applicable, exported data shall include all attached files.
Tested on- 05 June 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 14. Description**—Import/Export
Expected results—Where applicable, exported Submissions shall provide dates formatted as YYYY-MM-DD.
Tested on- 29 April 2015 **Tester-** JWH
Notes—Tested to Compliance.
- 15. Description**—Import/Export
Expected results—All data shall be validated prior to export. The user shall be notified of any errors and warnings but may choose to continue the export.
Tested on- 05 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

File Attachments

1. **Description**—File Attachments
Expected results—The system shall include the capability to attach any number of files at the Submission level.
Tested on- 01 May 2015 **Tester-** JWH
Notes—**Tested to Compliance.**

2. **Description**—File Attachments
Expected results—The system shall include the capability to attach any number of files at the Declaration level.
Tested on- 01 May 2015 **Tester-** JWH
Notes—**Tested to Compliance.**

3. **Description**—File Attachments
Expected results—The system shall include the capability to attach any number of files at the Entry level.
Tested on- 01 May 2015 **Tester-** JWH
Notes—**Tested to Compliance.**

4. **Description**—File Attachments
Expected results—The system shall include the capability of removing attached files.
Tested on- 01 May 2015 **Tester-** JWH
Notes—**Tested to Compliance.**

5. **Description**—File Attachments
Expected results—The system shall enable the user to open attachments with associated applications defined in the operating system.
Tested on- 01 May 2015 **Tester-** JWH
Notes—**Tested to Compliance.**

Quality Control

1. **Description**—Quality Control-Validation System
Expected results—The system shall employ validation checks and user feedback mechanisms wherever necessary to help ensure all Entry, Declaration, and Submission data meet the format and content requirements specified in the Detail Requirements and Appendix C.
Tested on- 05 June 2015 **Tester-** JWH
Notes—**Tested to Compliance. Validation Rules exist for all Entries, Declarations, and Submission Types.**

2. **Description**—Quality Control-Validation System
Expected results—Each validation feedback message shall be identified as an error, warning, or informational message to indicate the severity of the problem.
Tested on- 05 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

3. **Description**—Quality Control-Validation System
Expected results—Validation feedback shall contain sufficient detail to help the user correct the problem.
Tested on- 05 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

4. **Description**—Quality Control
Expected results—The system shall not prevent the use of any functionality in the system as a result of failed validation, except for “Export for Agency.”
Tested on- 05 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

5. **Description**—Quality Control
Expected results—Where applicable, the system shall perform quality checks on dates to ensure consistency and correct chronology.
Tested on- 05 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

6. **Description**—Quality Control
Expected results—Where applicable, the system shall perform quality checks on Entry cross-references and other data to ensure consistency and accuracy.
Tested on- 05 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

Reports

1. **Description**—Reports
Expected results—The system shall provide the capability to generate a viewable and printable report of any Submission, including its Declarations and Entries (or any user-selected subset). Detailed descriptions of such reports are provided in Appendix D of this document.
Tested on- 05 June 2015 **Tester-** JWH
Notes—Tested to Compliance.

2. Description—Reports

Expected results—The system shall provide the capability to generate a viewable and printable report of Submission due dates. A detailed description of the report is provided in Appendix D of this document.

Tested on- 05 June 2015 Tester- JWH

Notes—Tested to Compliance.

3. Description—Reports

Expected results—The system shall support multiple print layouts (e.g., printed and file formats).

Tested on- 05 June 2015 Tester- JWH

Notes—Tested to Compliance.

4. Description—Reports

Expected results—Where applicable, the system shall clearly differentiate Declarable Data from Internal Data in reports.

Tested on- 05 June 2015 Tester- JWH

Notes—Tested to Compliance.

5. Description—Reports

Expected results—The system shall provide the capability to generate a viewable and printable report of a user-selected collection of one or more Entries. A detailed description of the report is provided in Appendix D of this document.

Tested on- 05 June 2015 Tester- JWH

Notes—Tested to Compliance.

User Documentation

1. Description—User Documentation

Expected results—System help shall include thorough documentation, explanation of major system functions, and reference documents.

Tested on- 05 June 2015 Tester- JWH

Notes—To be enhanced during Beta testing.

2. Description—User Documentation

Expected results—System help shall include a copy of the IAEA document, *Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards* (INFCIRC/540, corrected).

Tested on- N/A Tester- N/A

Notes—To be enhanced during Beta testing.

- 3. Description**—User Documentation
Expected results—System help shall include a copy of the IAEA document, *Guidelines and Format for Preparation and Submission of Declarations Pursuant to Articles 2 and 3 of the Model Protocol Additional to Safeguards Agreements* (or equivalent document).
Tested on- N/A **Tester-** N/A
Notes—To be enhanced during Beta testing.
- 4. Description**—User Documentation
Expected results—System help shall include an explanation of the determination of due dates, including the significance of the Entry Into Force and As-Of dates.
Tested on- N/A **Tester-** N/A
Notes—To be enhanced during Beta testing.
- 5. Description**—User Documentation
Expected results—Where applicable, access to system help topics shall be context-sensitive.
Tested on- N/A **Tester-** N/A
Notes—To be enhanced during Beta testing.
- 6. Description**—User Documentation
Expected results—Where necessary, help topics shall include examples of Entry, Declaration, and Submission data.
Tested on- N/A **Tester-** N/A
Notes—To be enhanced during Beta testing.