A review of the Protocol Reporter v.2.0

Hye-Won Shim

Korea Institute of nuclear non-proliferation and control (KINAC), 573 Expo-ro Yuseong-gu, Daejeon, 305-348 Korea.

1. Introduction

The Agreement between the Republic of Korea (ROK) and the IAEA for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (the Safeguards Agreement) entered into force on November 14th, 1975. The Additional Protocol to the Safeguards Agreement (the Additional Protocol) was signed on June 21st, 1999 and entered into force on February 19th, 2004. ROK has been submitting annual updated reports of initial declaration on every May 15th since August 2004. Additional protocol reports have been submitted through Protocol Reporter provided by IAEA. Protocol Reporter is a computer system that facilitates preparation of reports by Member States of Declarations pursuant to Article 2 & 3 of the Protocol Additional to Safeguards Agreements (Additional Protocol). Protocol Reporter version 1.0 was developed by the IAEA in 1999 to help Member States structure electronic data storage and reporting formats in a way which is compatible with the guidelines on the Additional Protocol and its data handling system.

However, Protocol Reporter version 1.0 had several limitations in data management and Member states requested upgraded software.

In order to meet the demand, IAEA developed and released Protocol Reporter version 2.0 in 2008. Member states, consequently, should declare and submit the additional reports through the new version of the protocol reporter. This paper aimed to provide a brief overview of Protocol Reporter v.2.0 and highlight the improvements over the previous version.
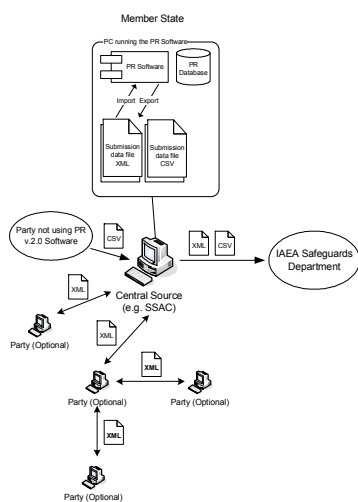

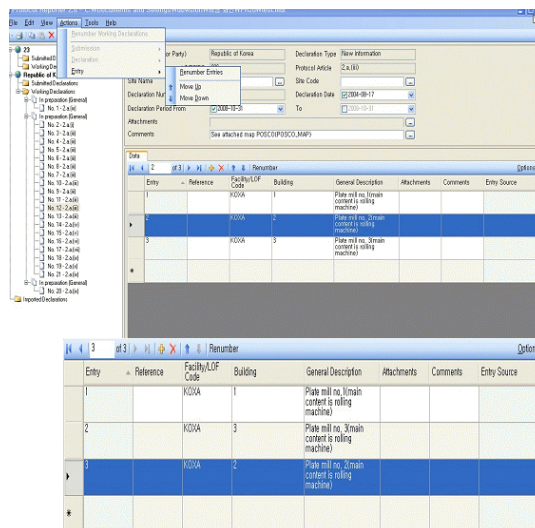Fig. 1 Workflow using the PR system

Fig. 2 A screenshot of Protocol Reporter v.2.0

2. What's New in Protocol Reporter v. 2.0

Fig. 2 shows a screenshot of Protocol Reporter v.2.0. Protocol Reporter v.2.0 is built using C# on Microsoft .NET Framework 2.0. The new version of the protocol reporter enables integrated management for data storage and submission.

Many functions of the protocol reporter have been improved. The biggest improvement is that preparation of declarations is now much easier because entries can be renumbered. In Protocol Reporter v.1.0, it was not allowed to move or renumber entries. Users had to do the job all over again from the start in order to modify or delete entries. Another attractive feature of v.2.0 is 'undo submit.' In the previous version, a submitted declaration could not be canceled. With Protocol Reporter v.2.0, it is now possible to undo the submission when errors are detected.

The following table lists the functional differences between v.1.0 and v.2.0.

Table I. Comparison between PR v1.0 and v2.0

	PR v.1.0	PR v.2.0
Database	Microsoft Access 97 file.	Microsoft Server Express 2005 file.
Declaration data structure	Predefined in accordance to the Model Protocol Additional Article 2.	The PR is able to deal with multiple Protocol Reporter Declaration Templates distributed by the IAEA.

	PR v.1.0	PR v.2.0
Preparation of Declarations and Submissions	Prepare a submission from working declarations.	Preparation of Declarations and Submissions: • Prepare an empty submission • Prepare working declarations in it • Complete a submission preparation
Edit of declarations	Create, update, and delete working declarations.	Same functionality and in addition: • Re-numbering of declarations with a capability to reserve a particular number for a particular declaration and to specify the initial number to start from. • Sorting and re-numbering of entries • Moving an entry up and down. • Attaching files to declaration header/entry
Import submission	from delimited text file	• Import submission from XML file (Agency XML format) • Import submission from delimited text file (PR 2.0 format) • Import submission from delimited text file (PR 1.0 format)
	Create declaration from imported declaration.	• Create declaration from imported declaration with identification of source for each declaration entry. • Create declaration entries by merging entries from imported declarations.
Delete	Imported declaration.	Imported declaration. If there is a working declaration created from an imported one (or if there is a working declaration(s) with entries that were merged from imported declaration) the following deletion options are available: • delete all entries in working declaration(s) that came from imported declaration being deleted;

	PR v.1.0	PR v.2.0
		• leave all entries in working declaration(s) intact; • leave all entries in working declaration(s) and clear the source information in them.
Export submission	text file (Guidelines format)	• delimited text file (Guidelines format) • XML file (Agency XML format)
Print	One declaration printout is available for each Article 2.	Multiple declaration printouts.
New tools:		• Determination of Due Dates • Delimited Format Data Editor • Agency XML Format Data Viewer • PR 1.0 data migration utility

Even with great improvement listed above, there are some issues to be addressed in Protocol Reporter v.2.0. For example, part of information on references to declarations is lost during migration from Protocol Report v.1.0. In addition, the new version lacks a desirable feature that automatically finds references. Users, therefore, have to enter in the relevant data manually.

3. Conclusion

As Protocol Reporter v.2.0 has been developed, facilities of member states are requested to report using the new system. Since the protocol reporter has been improved in many ways, it will come in handy for creating or modifying declarations and submitting them to the Agency. However, there is room for further improvement in some areas such as data management.

REFERENCES

[1] Model protocol additional to the agreement between state and the international atomic energy agency for the application of safeguards.
[2] Guidelines and format for Preparation and Submission of Declarations Pursuant to Article 2 and 3 of the Model Protocol Additional to Safeguards Agreements.
[3] Protocol Reporter v.2.0 User manual.