



BNL-222644-2022-FORE

# Safeguards Knowledge Repository Users' Manual

H. Seger, S. Zia

January 2022

Nonproliferation and National Security Department  
**Brookhaven National Laboratory**

**U.S. Department of Energy**  
USDOE National Nuclear Security Administration (NNSA), Office of Defense Nuclear  
Nonproliferation (NA-20)

Notice: This manuscript has been authored by employees of Brookhaven Science Associates, LLC under Contract No.DE-SC0012704 with the U.S. Department of Energy. The publisher by accepting the manuscript for publication acknowledges that the United States Government retains a non-exclusive, paid-up, irrevocable, world-wide license to publish or reproduce the published form of this manuscript, or allow others to do so, for United States Government purposes.

## **DISCLAIMER**

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or any third party's use or the results of such use of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof..



# Safeguards Knowledge Repository

## Users' Manual

January 2022

## Table of Contents

<b>1.0</b>	<b>General Information</b>	<b>4</b>
1.1	System Overview	4
1.2	Authorized Use Permission	4
1.3	Points of Contact	4
1.4	Browser Options	5
<b>2.0</b>	<b>Getting Started</b>	<b>5</b>
2.1	Obtaining a SKR Account	5
2.2	Change your Password	5
2.3	Forgot your Password	5
2.4	Login Information	5
2.4.1	Logging in through OneID	6
2.4.1.1	Users with DOE PIV/PIV-1 Card	6
2.4.1.2	Users with DOE site credentials	6
2.4.2	Logging in through SKR Authentication Portal	6
<b>3.0</b>	<b>System Features</b>	<b>7</b>
3.1	Site Navigation	7
3.2	Dashboard	7
3.2.1	Toolbar Functions	8
3.2.1.1	Dashboard	8
3.2.1.2	Help	8
3.2.1.3	User Account Information	8
3.2.1.3.1	My Profile	8
3.2.1.3.2	My Content	9
3.2.1.3.3	Logout	9
3.3	Search Features	9
3.3.2	Document Access and Management Functions	9
3.3.2.1	Search	9
3.3.2.2	Keywords	10
3.3.2.3	Organizations	10

3.3.2.4 Document Types.....	11
3.3.2.5 Upload .....	11
3.3.2.6 Recently Viewed Documents.....	12
<b>4.0 Additional Functions .....</b>	<b>12</b>
4.1 Deleting Files.....	12
4.2 Contents .....	12
4.3 Taxonomy .....	13
4.4 Creating Curated Sets .....	13
4.5 Manage Author Profiles for Non-Users.....	14
<b>5.0 Documentation Procedures .....</b>	<b>16</b>
5.1 Upload Document .....	16
5.1.1 Metadata .....	19
5.2 Edit Metadata .....	20
5.3 Delete Document .....	22
5.4 Official Use Only Documents.....	22
5.5 Sensitive but Unclassified Documents .....	22
5.6 Headquarters Only Documents .....	23
5.6.1 Changing Documents to HQ-Only .....	24
5.6.2 Requesting access to HQ-Only.....	24
5.7 Comments.....	25
5.8 Transfer Document Ownership .....	25
<b>6.0 Appendices .....</b>	<b>27</b>
6.1 Acronyms.....	27
6.2 Frequently Asked Questions (FAQ).....	28
6.3 Intern Guidance (prepared December 27, 2017) .....	29

## 1.0 General Information

This document provides instructions for the use of the Safeguards Knowledge Repository (SKR). SKR was developed through a multi-laboratory collaboration funded by the Department of Energy's National Nuclear Security Administration's Office of International Nuclear Safeguards (NA-241).

Information regarding the development and design of SKR can be found in the following document:

Bachner, Katherine, et.al., "Safeguards Knowledge Repository (SKR): FY17 Project Report," October 2017.

### 1.1 System Overview

In 2017, the National Nuclear Security Administration's Office of Defense Nuclear Nonproliferation, Office of International Nuclear Safeguards (NA-241), commissioned a project to explore the creation of an international nuclear safeguards knowledge management repository.

The Safeguards Knowledge Repository (SKR) is a platform envisaged to provide practitioners in the U.S. safeguards community with convenient, one-stop access to relevant existing information about ongoing safeguards work, past, current and upcoming safeguards challenges, and historical documents from U.S. government and IAEA sources. The system's core purpose is to reduce stovepiping of safeguards projects and their products and encourage the cross-pollination of ideas within the U.S. safeguards community. Relatedly, consistent use of the SKR will reduce redundancies and save time for both the sponsor and principal investigator in the proposal writing process by allowing safeguards practitioners to review previously funded proposals and avoid superfluous submissions.

### 1.2 Authorized Use Permission

SKR requires access approval and multifactor authentication to access. Access will be restricted to individuals with an active .gov email address. The goal is to provide information to national laboratory staff supporting U.S. government safeguards missions (e.g., policy, concept development, technology development, vulnerability assessments, and international technical engagement) and relevant sponsors and decision makers in the U.S. government including the Department of Energy (DOE), Department of State (DOS), Nuclear Regulatory Commission (NRC), and the U.S. Mission to International Organizations in Vienna (UNVIE). Access permissions are subject to change over time.

### 1.3 Points of Contact

For additional information about SKR, please contact the following people and offices:

SKR Help Desk:

Email: [skrhelp@anl.gov](mailto:skrhelp@anl.gov)

SKR Project Manager (Heather Seger):

Email: [hseger@anl.gov](mailto:hseger@anl.gov)

Phone: (630) 252-6791

SKR Program Manager (Jessica Rahim)

Email: [jessica.rahim@nnsa.doe.gov](mailto:jessica.rahim@nnsa.doe.gov)

## 1.4 Browser Options

SKR is fully functional with several browsers. To date, it has been tested successfully with Google Chrome, Edge, and Mozilla Firefox.

## 2.0 Getting Started

### 2.1 Obtaining a SKR Account

To obtain an account for SKR, a prospective user should contact either the SKR project manager, the SKR administrator for their site, or the SKR Help Desk. Each federal agency or national laboratory that participates in SKR has a site administrator to assist in the administration of user accounts. In order to obtain an account, the user's site administrator must confirm that the prospective user's access request is justified. The prospective user will be asked to complete the SKR User Agreement Form and to return it to the designated administrator(s).

The list of administrators is not included in this manual. The SKR Help Desk can provide prospective users with the relevant contact information.

Access can be requested via an informal email to the SKR Help Desk. The Help Desk representative will provide the requestor with the SKR User Agreement Form prior to requesting authorization.

Once access is approved, access through OneID will be made available for those with DOE HSPD-12 badges. For users without a DOE HSPD-12 card, shortly thereafter, the Help Desk will send a username, password and set of passcodes to the user's email address as an alternative login method through the SKR Authentication Portal.

### 2.2 Change your Password

There is no way to change your password in the SKR system. Please contact the SKR Help Desk for assistance.

### 2.3 Forgot your Password

There is no provision to be reminded of your password or to receive a new password through SKR or its access portal. Please contact the SKR Help Desk for assistance.

### 2.4 Login Information

The Safeguards Knowledge Repository can be accessed at <https://skr.nsis.anl.gov>. There are two different ways to enter the repository depending on whether or not the user has an

PIV/PIV-1 badge that can be used in a card reader on their computer.

#### 2.4.1 Logging in through OneID

##### 2.4.1.1 Users with DOE PIV/PIV-1 Card

A DOE PIV/PIV-1 card is an identification badge given to DOE federal and contractor employees that have an appropriate level of information access. A DOE PIV/PIV-1 card is equivalent to an HSPD-12 badge. A DOE PIV/PIV-1 badge is not required for access to the SKR system, but it can facilitate routine usage of the system.

A user with a DOE PIV/PIV-1 card can enter SKR by clicking on “Log in through OneID” on the SKR homepage. The user then clicks on the “DOE PIV/PIC-1” icon near the top of the screen. Please note that “DOE site accounts” listed below this icon cannot be used to log into SKR.

## ANL Safeguards Knowledge Repository

Sign on with an HSPD-12 Smart Card



DOE PIV/PIV-1

The system will ask the user to verify that their HSPD-12 Smart card is in their card reader before clicking the OK button. The user can return to the previous screen by clicking “Cancel.” Once the user has verified that their badge is securely inserted into their card reader, the user should click “OK.” SKR will then ask the user to select a certificate for authentication. There may be more than one certificate associated with their profile. After selecting a certificate, the user should click “OK.” The user will then be prompted to enter his/her PIN and click “OK.” The user will then be brought to the SKR dashboard.

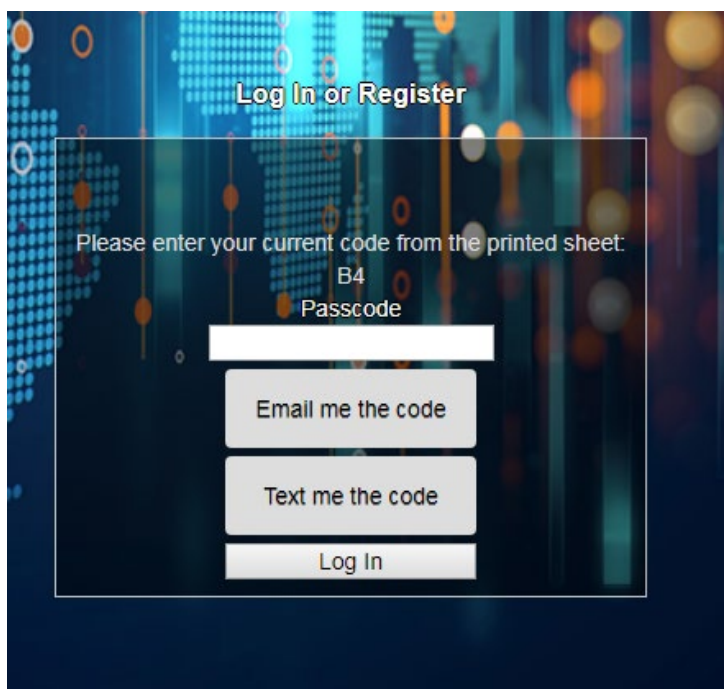
##### 2.4.1.2 Users with DOE site credentials

Users without a PIV/PIV-1 card but having an email address with a “.gov” extension can access SKR through the SKR Authentication Portal. This procedure is described in 2.4.2.

#### 2.4.2 Logging in through SKR Authentication Portal

Logging into SKR without a DOE PIV/PIV-1 card requires a set of two passwords. From the SKR homepage, the user clicks “SKR Authentication Portal”. The user is then prompted to enter a Username and Password. This password is the user’s personal password, established when the account is created and provided by the SKR administrator. The system will then ask for a passcode as a form of multifactor authentication. The code is from a sheet of one-time use alphanumeric passcodes provided to the user upon establishment of an account. You can save these codes on your workstation for easy reference. SKR also gives you the opportunity to have the passcode emailed to your government address or texted to your mobile phone. Logging into SKR through the SKR Authentication Portal will always require a passcode from the sheet.






## 3.0 System Features

### 3.1 Site Navigation

SKR is designed to be easily navigated while also providing extensive data from a variety of sources. The toolbar at the top of the SKR dashboard under the logo provides all of the options necessary to easily navigate the SKR website, including Help, user account information, full search, upload files, aggregates, view keywords, and taxonomy. The dashboard also provides a fast and easy way to search and sort documents. Section 3.0 describes all of the functions available on SKR.

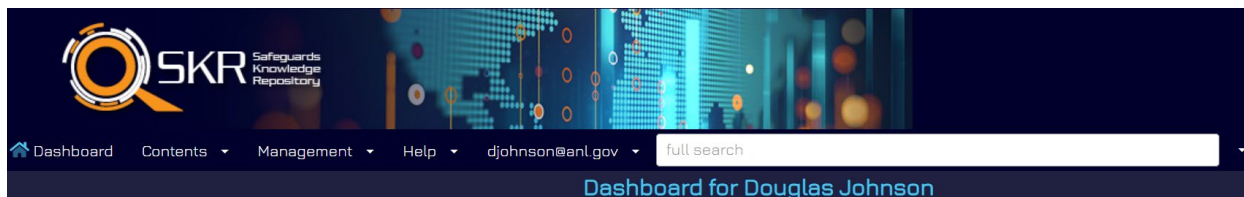
### 3.2 Dashboard

The SKR dashboard provides access to all SKR functions. The toolbar at the top of the SKR dashboard under the logo provides access to basic functions of SKR website, including Contents, Help, user account information, and full search. Under the toolbar, the dashboard is divided into two sections. The section on the left can be used for searching the repository for several values, including title, author, source organization, and keywords.

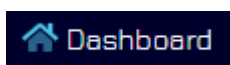
On the right side of the dashboard, SKR provides several views that allow the user to see a list of recently viewed documents, available curated sets, and documents tallied by keywords, source organizations and document types. These views can be expanded using the symbol in the upper left corner of each box. 

All lists are hyperlinked. If a keyword, source organization name, or document type is clicked, users will see all documents that have those items contained in their metadata. Users can access documents by clicking on the pdf symbol. Users can access the metadata for documents by clicking on the document name.

### 3.2.1 Toolbar Functions

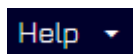


#### 3.2.1.1 Dashboard



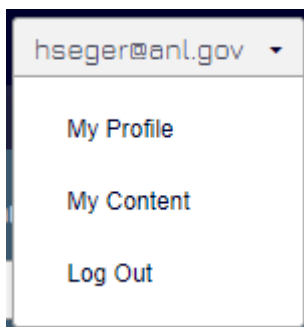
Clicking dashboard on the SKR toolbar will return the user to the SKR dashboard.

#### 3.2.1.2 Help



Clicking “Help” on the SKR toolbar reveals options for Contact Us, SKR Content Guidance, this user guide, Privacy and Security Notice, Site FAQ, Release Notes, Search Help, and About SKR.

#### 3.2.1.3 User Account Information



Clicking on the user’s email address on the SKR toolbar to the right of the Help function reveals options for My Profile, My Content, and Logout.

##### 3.2.1.3.1 My Profile

Clicking My Profile will reveal the user’s profile information that includes title, alias, organization, description, expertise, keywords, location, date, email address, identifier, contact address, contact phone, and owner. Only the information that the user has provided will be reported, so some of these fields may not appear.

Clicking the “Edit” button at the bottom of the screen allows the user to change the information in their profile.

### 3.2.1.3.2 My Content

Clicking on My Content will produce a list of all documents entered into SKR by the user. The documents will be organized by document source and then by document type.

### 3.2.1.3.3 Logout

Clicking Logout will log the user out of SKR.

## 3.3 Search Features

SKR provides a full search bar as well as a Search form on the left side of the dashboard that can be used to locate files of interest. All of the information for the search terms is provided in the metadata for each document. The uploader of the document is responsible for filling in the metadata for that document. However, most documents' metadata is editable by the majority of SKR users. Users are encouraged to help improve metadata by making appropriate changes.

### 3.3.2 Document Access and Management Functions

Documents can be accessed and managed using the Search form on the left side of the dashboard and the Keywords, Curated Sets, Source Organization and Document Type views on the right.

#### 3.3.2.1 Search

The Search functionality can be found directly on the main toolbar, or accessed at any time from the dashboard, where it is marked "Search the Repository". The search supports simple text searches, but also provides powerful advanced faceted and boolean search capabilities outlined in the Search Help page under the Help menu. The faceted search, available on the left side of the dashboard and using the down arrow to the right of the toolbar search box, allows searching one or more of the following fields: full text, name/title, description, author, source organization, locations, keywords, or content.

Search results are comprised of a list of documents matching the search criteria. Searches are not case sensitive.



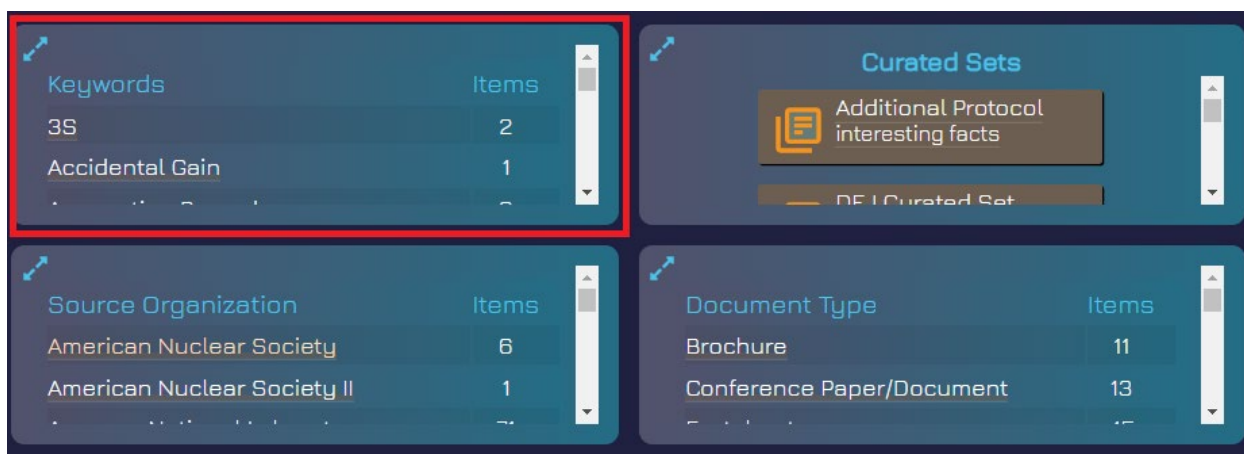
<a href="#">Title</a>	<a href="#">Description</a>	<a href="#">Source Organization</a>	<a href="#">Date Published</a>	<a href="#">Document Type</a>	<a href="#">Last Modified</a>
 <a href="#">Application of Fuzzy Set Theory in Safeguards</a>		Brookhaven National Laboratory		Report	05/28/2020 by Johnson, Douglas
 <a href="#">Joint Study of Improved Safeguards Methodology Using No-Notice Randomized Inspection at JNCs Pu Handling Facilities</a>		Brookhaven National Laboratory		Conference Paper/Document	09/08/2021 by Christiansen, Laura
 <a href="#">NGSPN @ BNL</a>	The report documents the Next Generation Safeguards Professional Network meeting that was held at Brookhaven National Laboratory in September 2016.	Brookhaven National Laboratory	10/01/2016	Report	05/19/2019 by Pepper, Susan
 <a href="#">Safeguards Test Report 1</a>		Brookhaven		Report	05/19/2019 by

This list provides the document name, a description (if provided), the source organization, date published, and the document type.

### 3.3.2.2 Keywords

In order to ensure a user-friendly experience for those downloading information, the Repository provides a standardized taxonomy for use in defining safeguards related keywords. There is a standardized library of terms that works to avoid keyword variations (e.g., Additional Protocol vs AP, nondestructive assay vs nondestructive analysis), misspellings, and inaccurate terminology and will enable more successful searches of the compilation of information. Keywords that do not exist in the taxonomy can be added to the metadata of a document. These new keywords will be periodically evaluated to determine whether they should be added to the existing taxonomy or if an existing keyword would be more appropriate.

A full list of all the keywords logged on SKR, as well as the quantity of documents containing that keyword in its metadata, is available from the dashboard in the Keywords view, which can be expanded. The user can click on a keyword in the list to find all the documents that contain that keyword. Keywords not in the taxonomy but added to a document's metadata will be visible in this list.



Keywords	Items
3S	2
Accidental Gain	1
...	...

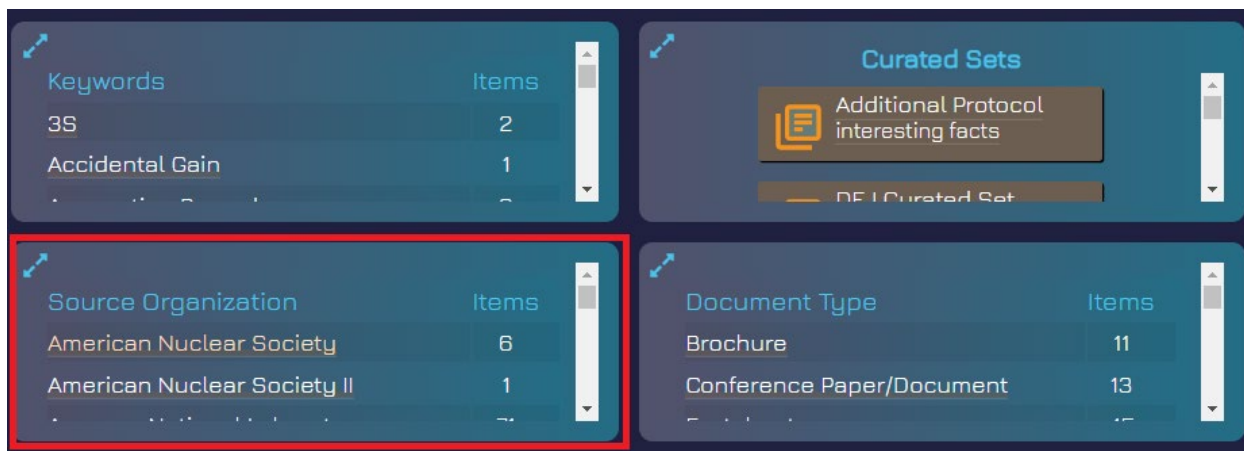
Curated Sets
Additional Protocol interesting facts
DEF Curated Set

Source Organization	Items
American Nuclear Society	6
American Nuclear Society II	1
...	...

Document Type	Items
Brochure	11
Conference Paper/Document	13
...	...

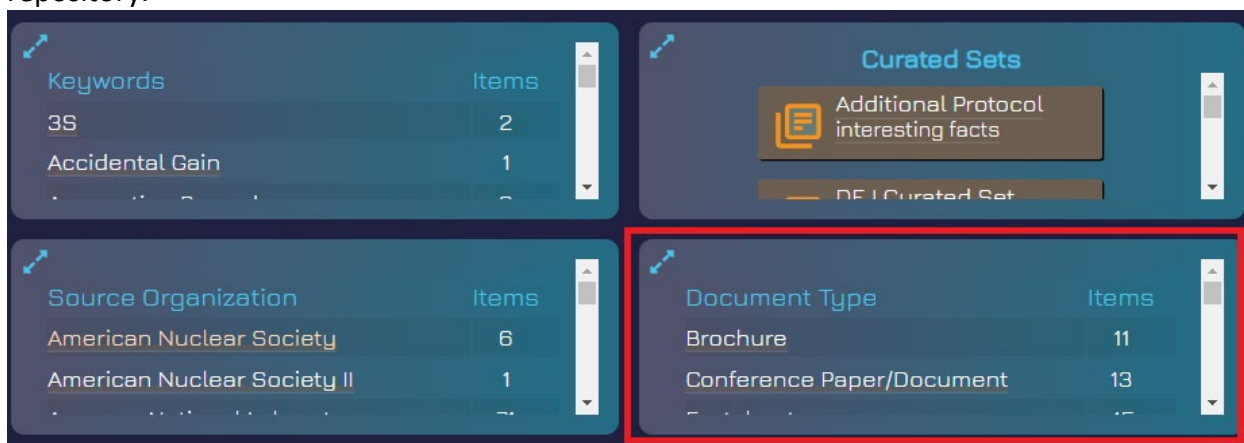
### 3.3.2.3 Organizations

The dashboard provides an expandable Source Organization view with a list of safeguards-relevant organizations and the number of documents contained in the SKR repository attributed to each organization.



### 3.3.2.4 Document Types

The expandable Document Type view on the dashboard provides a list of document types included in the repository and the number of documents of each type contained in the SKR repository.



Selecting a document type will redirect the user to a new page with an aggregate view of that document type.

### 3.3.2.5 Upload



Users can upload files into SKR by dragging them directly from their computer's file explorer onto the webpage. In addition, an upload button can be found at the bottom of the dashboard or in the toolbar on pages other than the Dashboard. Upon clicking the upload button, the user's file explorer will open on the screen. Upon selecting a one or more documents from the directory, or after dragging a file to SKR, SKR will open a window requesting the user to indicate whether a document is sensitive (OUO, SBU and HQ-only) and requiring the entry of some metadata. The user can also indicate whether a file should be unlocked, which will allow other users to edit the metadata. After uploading the document, it is recommended that the user access the metadata and complete the rest of the relevant fields. In the most recent update of SKR, the user is able to add the Sponsoring Office as an independent metadata field.

*Before uploading multiple documents as one batch, please ensure they share identical sensitivity levels (OUO, SBU, HQ-Only) and, ideally, the same organization and document type.*

See Section 5.1 for guidance on uploading documents.

### 3.3.2.6 Recently Viewed Documents

The “Recently Viewed Documents” section of the dashboard lists documents most recently viewed by the user. Viewing a document’s metadata without opening the source file will not add entries to this section. This allows users to easily keep track of documents they have browsed.

In the most recent update, a visual indication was added to show which documents’ metadata has been previously viewed in item subset lists (e.g., keywords, search results). After opening the metadata and returning to your search results, the hyperlinks for documents that you have opened will be a different color. Opening a file using the PDF icon without viewing the metadata will not trigger this change.

## 4.0 Additional Functions

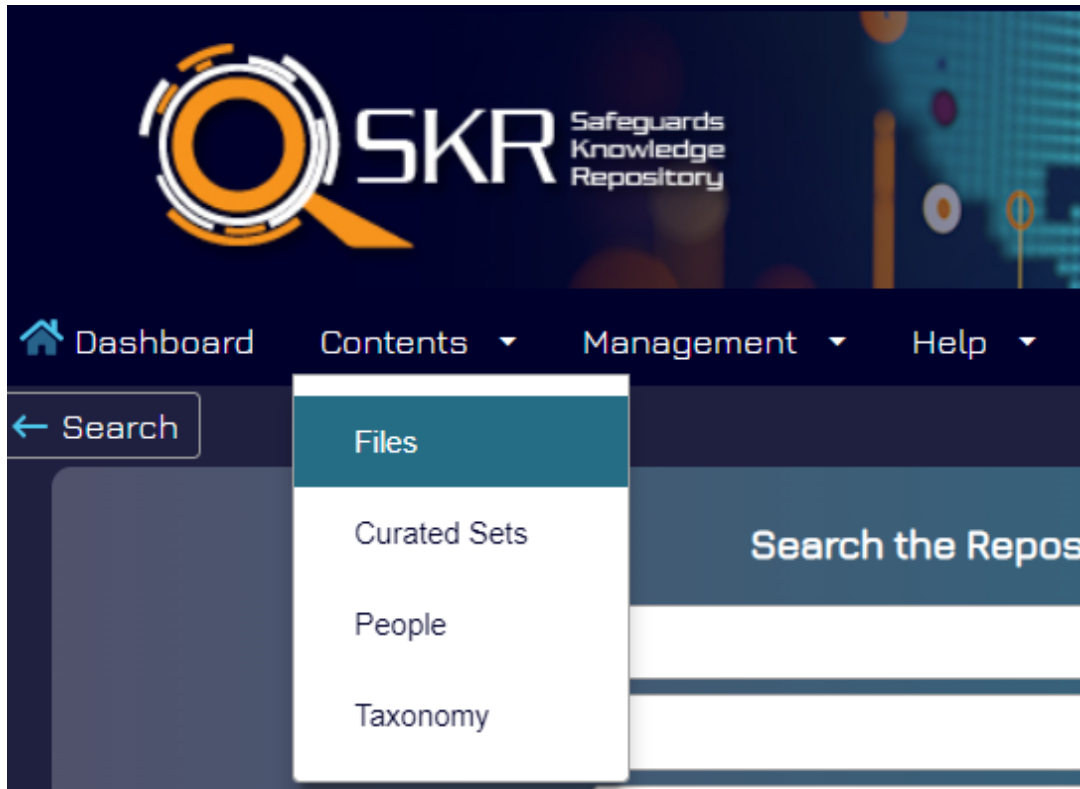
### 4.1 Deleting Files

Users can delete files they own. To delete a file, the user must click on the title to open the metadata page. In the upper right-hand corner of the screen, there is a delete icon (a blue trash can icon). Click the icon, and SKR will ask if you are sure you want to delete the file. Clicking cancel will result in the file remaining in the repository. Clicking “OK,” will result in the file being deleted.



### 4.2 Contents

The “Files” option, available under “Contents” in the menu toolbar, allows the user to view a complete list of documents uploaded to SKR. This list is organized alphanumerically and provides the title of the document, the description (if provided), source organization, date published, document type, and the data the metadata was last modified.



### 4.3 Taxonomy

All recognized keywords within SKR are hierchically organized by topic and ubtopic. For the current SKR system, all keywords fall under the following top-level topics:

- Stakeholder
- Purpose
- Facility
- Material
- Verification and Compliance
- Tools and Techniques
- Training
- Agreements and Legal Instruments
- Notable Safeguards Experts

Each of these topics has a list of subtopics from which users can select keywords relevant to their contributions. Some keywords apply to more than one topic.

For users searching for documents based on keywords, SKR will recognize topics and subtopics. As the repository is used, the administrator can monitor the entry of custom keywords to search for entries that should be added to the standardized taxonomy.

### 4.4 Creating Curated Sets



Functionality for users to create and quickly find curated sets of canonical documents, author profiles, and even other curated sets on select topics is now available. To create such a list on the SKR system:

1. Login to SKR using the procedures detailed above.
2. Select "Curated Sets" from the "Contents" menu OR expand the "Curated Sets" view on the dashboard.
3. Click the "+" button in the tool bar to create a new list.
4. A dialog box should appear for you to describe the new list.
5. Supply the name of your list in the Title field.
6. Supply any other details you wish.
7. Click the *Save* button at the bottom of the panel.
8. Your new set should now appear in the list. Click on it.
9. Click on the *Curate* tab.
10. Search for items to add to the set
11. Click the check box in the *Include* column at the far right for each found item to add.

A document can be added to a curated set you own and sets made publicly available with unlocked metadata from its metadata page. To do this, click on the document title to open the metadata page. From there, click on the *Membership in Sets* tab. A list of curated sets that you can add the document to will appear. Check the box to the right of the set/s to which you wish to add the document.

Curated Sets are private unless the creator chooses to make it available to the other users on SKR. To do so, click the "Lock Metadata" or "Unlock Metadata" buttons at the bottom of the curated set you have created. This will make the curated set available to all users with the metadata either locked or unlocked based on your choice. As stated above, unlocked metadata will allow others to contribute to the list of documents contained in the set. Locking the metadata will prevent this. To make the set private again, simply click the "Hide" button.

#### 4.5 Manage Author Profiles for Non-Users

Content managers can add and maintain personal profiles for authors not presently in the system. When a document is first uploaded to SKR, the interface allows the uploader to combine authors selected from existing profiles with *unlinked* names of additional authors. Many of the documents already uploaded to the repository contain such unlinked author names.

SKR users with the *Content Manager* role have the ability to create a profile for an unlinked author name—and replace that name with a link to the new profile in the process. When viewing unlinked author names for a given document, a Content Manager is shown a special "Add User



Profile" icon. Clicking this icon will cause SKR to prompt for verification and clicking "OK" here launches a process that:

1. Creates a new author profile with the unlinked name, and
2. Replaces the unlinked name in the current document's metadata with a reference to the newly created author profile.

At this point, the new author profile becomes an independent, searchable item in the repository that can be selected by Collaborators as an author for any documents they add or update.

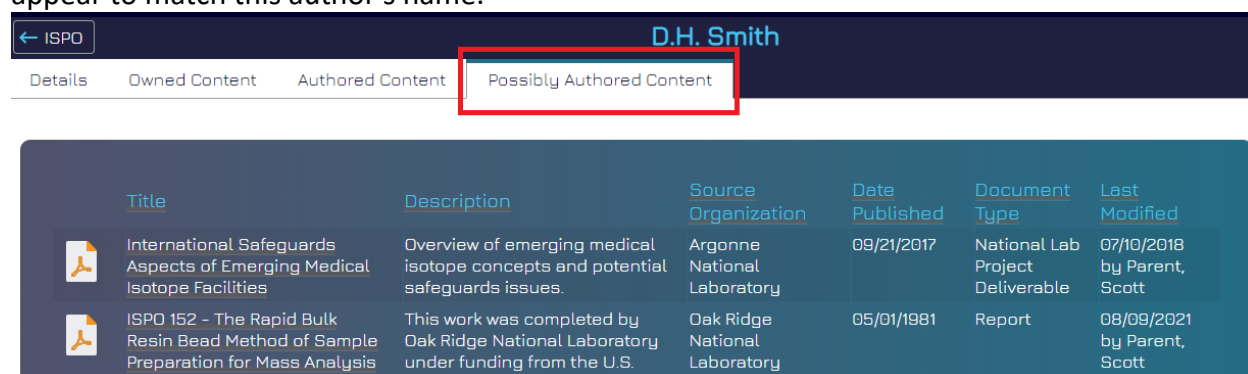
Once completed, the view of the document's metadata is updated accordingly—with the author's name underlined and hyperlinked to this new profile. Clicking this link allows the Content Manager to view and manage the new author profile. In turn, clicking the edit icon in the toolbar—near the upper-left corner of the page—will allow the Content Manager to edit the author's profile metadata.



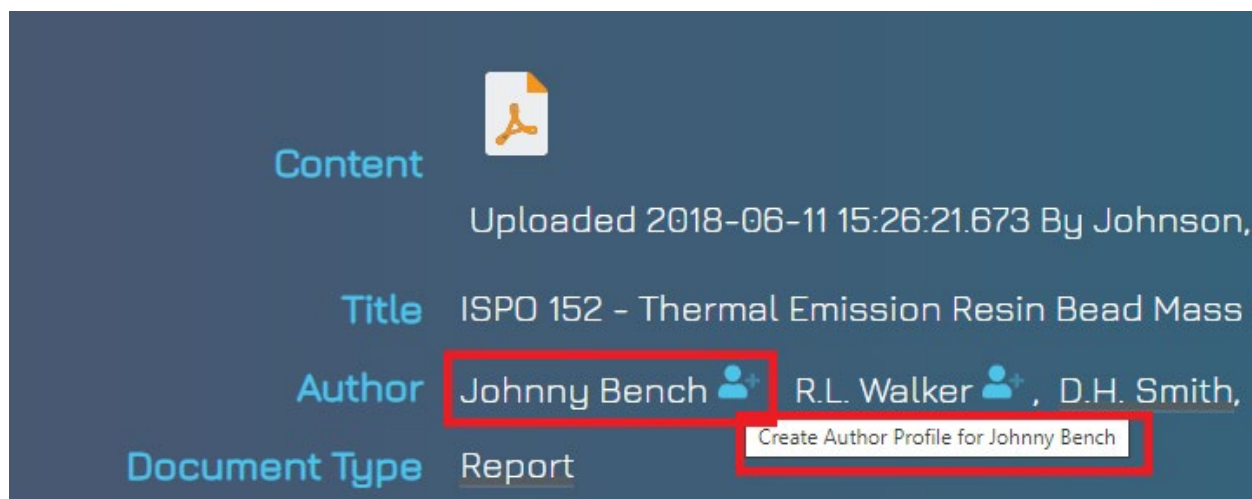
Content Managers may now search for—and update—additional files to link to this new profile.

For documents with unlinked author names that *exactly* match the name of the new profile, SKR provides a few additional shortcuts for discovery and updating.



The tab labeled, "Possibly Authored Content," lists documents with unlinked author names that appear to match this author's name.



As with other lists of files, clicking on the title of any file in this list will bring you to a view of that file's metadata. For any unlinked author names in this metadata that match available author profiles, SKR will show the Content Manager a "Link" symbol.



This screenshot shows the metadata for a document. The 'Content' section includes a PDF icon, the upload date '2018-06-11 15:26:21.673', and the uploader 'By Johnson'. The 'Title' is 'ISPO 152 - Thermal Emission Resin Bead Mass'. The 'Author' field lists 'Johnny Bench', 'R.L. Walker', and 'D.H. Smith'. The 'Document Type' is 'Report'. A red box highlights 'Johnny Bench' with a person icon and a plus sign. Another red box highlights a prompt that says 'Create Author Profile for Johnny Bench'.

Content	Uploaded 2018-06-11 15:26:21.673 By Johnson,
Title	ISPO 152 - Thermal Emission Resin Bead Mass
Author	Johnny Bench  R.L. Walker  , D.H. Smith,
Document Type	Report

As with the "Add User Profile" icon described above, clicking on this icon will prompt the Content Manager to confirm the intention to proceed. Clicking "OK" on this prompt, then, will replace the unlinked name with a link to the matching author profile, and update the view of the metadata to reflect this change:



This screenshot shows the same document metadata after the author profile has been created. The 'Author' field now shows 'R.L. Walker', 'D.H. Smith', and 'Johnny Bench' with a red box highlighting the latter. The 'Document Type' remains 'Report'.

Content	Uploaded 2018-06-11 15:26:21.673 By Johnsn
Title	ISPO 152 - Thermal Emission Resin Bead Ma
Author	R.L. Walker  , D.H. Smith, <u>Johnny Bench</u> ,
Document Type	Report

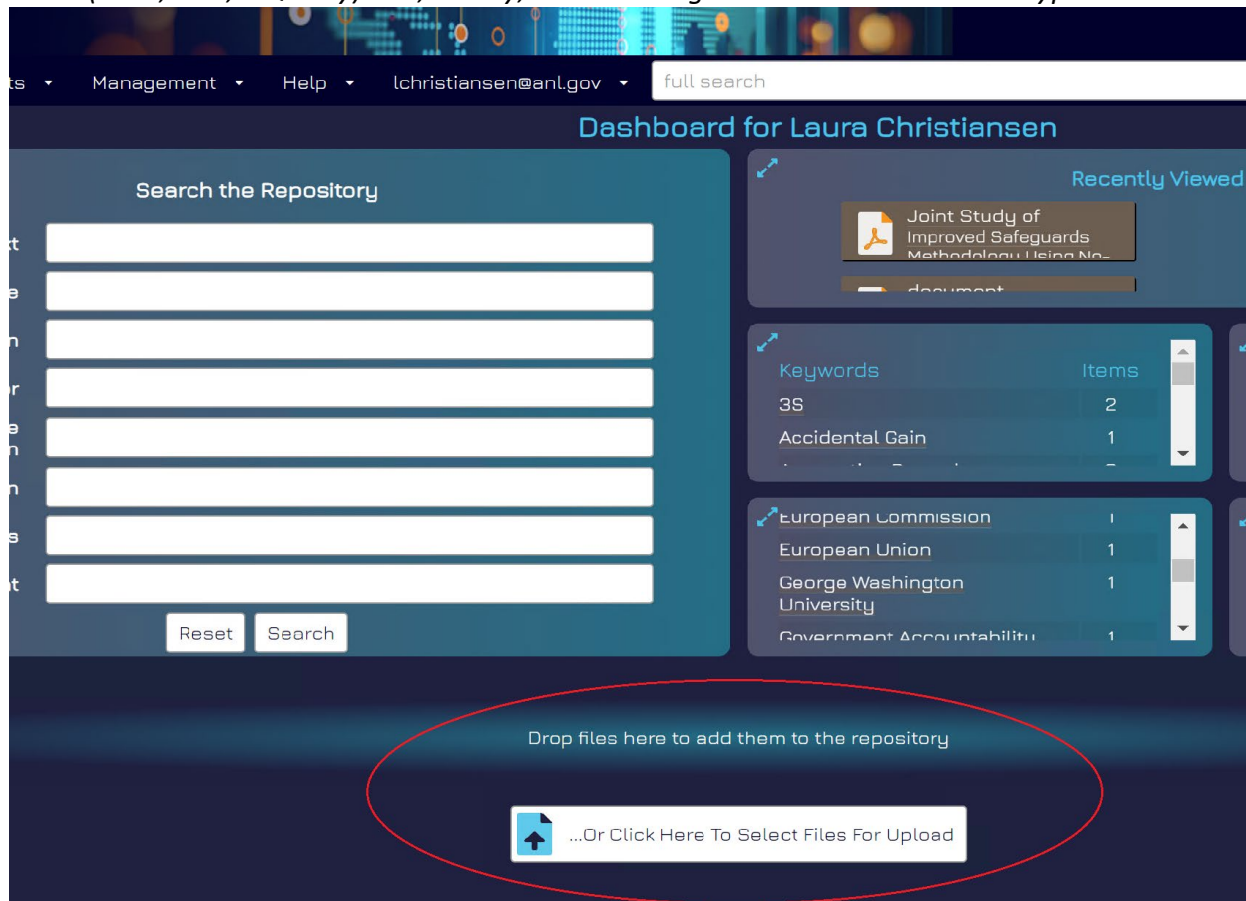
## 5.0 Documentation Procedures

The following are directions for activities that SKR users are expected to undertake.

### 5.1 Upload Document

Most authorized SKR users have the ability to upload relevant documents into the repository. Documents can be uploaded directly through the Dashboard. At the bottom of the Dashboard page, either drag and drop one or more files to be uploaded or click the button titled "...Or Click Here to Select Files for Upload", which opens a pop-up for the user to select one or more files from their computer.

*Before uploading multiple documents as one batch, please ensure they share identical sensitivity levels (OUO, SBU, HQ-Only) and, ideally, the same organization and document type.*



All uploaded documents should be in text-searchable, .pdf format. After selecting one or more files, the user will be prompted to provide preliminary information for them, such as document sensitivity, document type and source organization. The document filename should be the title of the document. Please note that the uploaded documents will be listed in SKR by its filename. This field is editable in the metadata if the user wishes to make a change.

✕
Upload Files

Name	Size	Modified	Status
Joint Study of Improved Safeguards Methodology Using No-Notice Randomized Inspection at JNCs Pu Handling Facilities.pdf	4415195	11/1/2019, 1:38:49 PM	

Yes
No

OUO? i  
SBU? i  
HQ-Only? i

☒  
☐  
☐

☐  
☐  
☒

Document Type ▼  
Organization ▼  
Collaborator Access Unlock metadata for collaborators to edit? ☐

Proceed

After clicking “Proceed”, the document(s) will be uploaded. At this point, SKR automatically searches the document to find relevant information for the metadata, such as keywords, temporal and spatial coverage, etc.

Metadata
Comments
Membership in Sets
Citation
Special Access

Content

Title

Uploaded 2018-06-11 15:30:32.97 By Parent, Scott

Author

ISPO 152 - The Rapid Bulk Resin Bead Method of Sample Preparation for Mass Analysis of Plutonium and Uranium in Spent Reactor Fuel - Task A.56

Document Type

R.L. Walker i, D.H. Smith i, J.A. Carter i, H.S. McKown

Source Organization

Report

Keywords

Oak Ridge National Laboratory, International Safeguards Project Office

Location

calibration, uranium, safeguards, Resin bead technique, power reactor, detector, mass spectrometry, waste, plutonium, reactor, radiation, fuel

Identifier

Austria

Format

ISPO 152 - The Rapid Bulk Resin Bead Method of Sample Preparation for Mass Analysis of Plutonium and Uranium in Spent Reactor Fuel - Task A.56.pdf

Owner

application/pdf

Susan Pepper

Certain metadata tags, such as author(s), publication date, and the description must be input manually by editing the metadata. For more information on editing a document’s metadata, read section 5.2.

If a document is Official Use Only, please ensure that the “OUO” box is checked “yes” when uploading. If a document is Sensitive but Unclassified, please ensure that the “SBU” box is

checked “yes” when uploading.<sup>1</sup> If a document is designated Headquarters Only, please ensure that the “HQ-Only” box is checked when uploading. For more information regarding OUO, SBU, and HQ-Only documents, refer to sections 5.4-5.6.

Before uploading a document, please read the “Guidance for Interns” document in Appendix 6.3. This document provides detailed instructions for naming files and entering metadata.

### 5.1.1 Metadata

The following metadata is available for each document uploaded:

**Title:** The title of the document exactly as it appears on the cover page or at the beginning of the document. (Note: SKR will automatically use the filename as the document title, so it will be easier if users save the file with the document title as the filename. However, this field is editable metadata and changes/corrections can be made later.)

**Publication Date:** The date of the document as it appears on the cover page or in the header or footer of the document in mm/dd/yyyy format.

**Document Type:** Describes the type of content (e.g., NA-241 deliverable, conference paper, book). The uploader can select the document type from the drop-down menu on SKR.

**Author(s):** The authors of the document. The full last name should be provided. Also provide a first full name or initial. A middle name or initial should also be provided, if available.

**Source Organization:** The organization responsible for/leading the publication, submission, or release of the item. While many products produced for NA-241 have authors representing multiple organizations, typically one organization is responsible for the final release of the product. This is the organization that should be represented in this metadata field. If multiple organizations are listed, only one will appear in search list results. There is no way to indicate which organization is primary at this time.

**Sponsoring Office:** The government agency or office that sponsored the product. If the product is a poster or a presentation, then the government agency responsible for organizing the event.

**Identifier (if applicable):** Any unique identifier for the uploaded document, which could be a number assigned by the source organization during the review and release process. Library of Congress or other number may be used instead of a laboratory-specific number if applicable. Some documents, such as IAEA Gov and INFCIRC documents, will not have such a number. By default, the system automatically adds the file name as an identifier. Multiple identifiers can be entered for a given document.

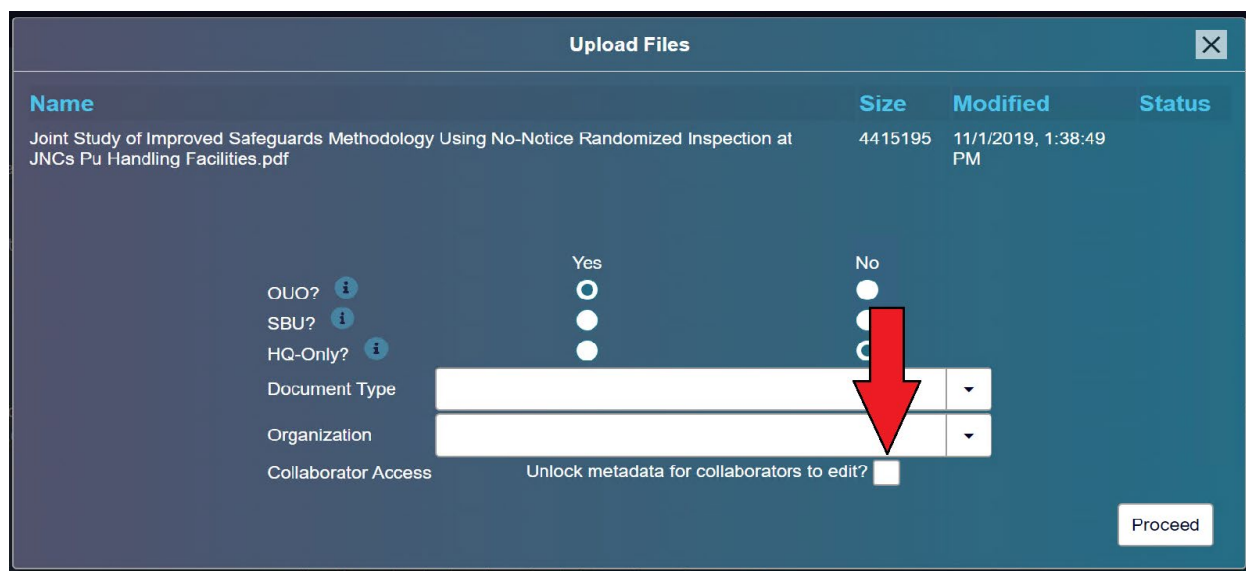
---

<sup>1</sup> OUO and SBU are variations of the same concept. OUO is the term preferred by DOE and SBU is preferred by the State Department. Please use the term that is marked on the document.

**Keywords:** Suggested keywords are provided in the SKR taxonomy. Keywords help users more easily find a document in the repository by describing its subject matter. An unlimited number of keywords may be defined, but keywords should be limited to those already in the SKR taxonomy to the maximum extent practical. SKR inspects newly uploaded documents and automatically designates keywords in the metadata based on document contents. The user who uploads the document should review the keywords provided by SKR for accuracy and make changes as appropriate

## 5.2 Edit Metadata

When uploading documents, the user has the option to allow other SKR users to edit the document metadata by selecting the box titled “Unlock metadata for collaborators to edit?”.



The screenshot shows a 'Upload Files' dialog box with a table of uploaded files and a form for metadata. A red arrow points to the 'Unlock metadata for collaborators to edit?' checkbox.

Name	Size	Modified	Status
Joint Study of Improved Safeguards Methodology Using No-Notice Randomized Inspection at JNCs Pu Handling Facilities.pdf	4415195	11/1/2019, 1:38:49 PM	

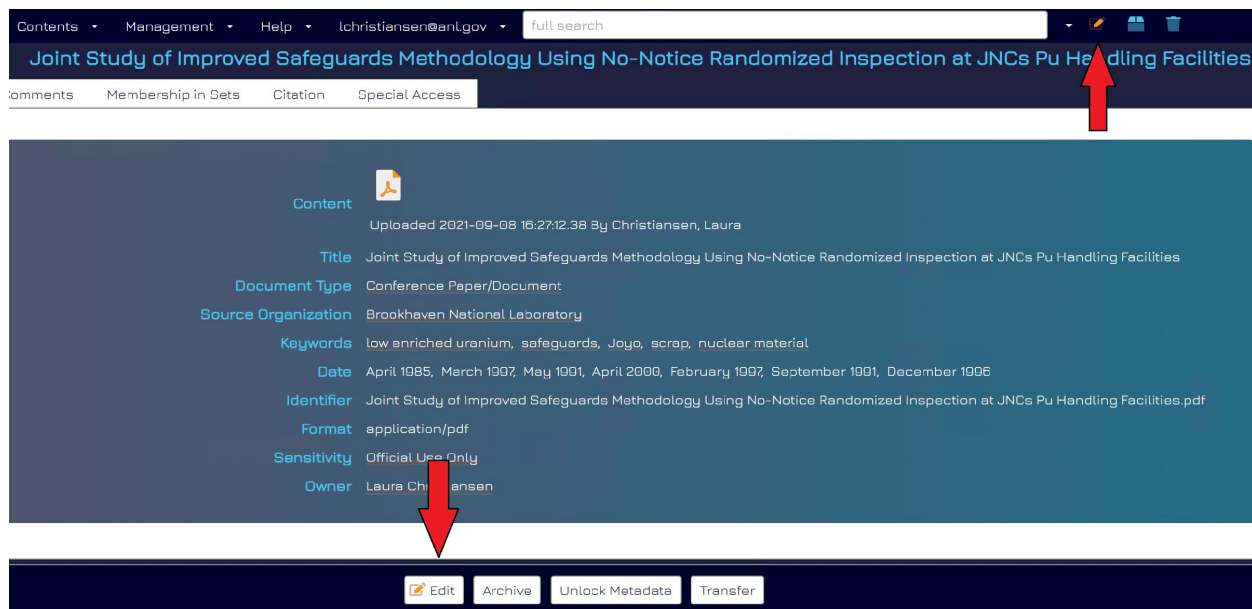
  

	Yes	No
OUO? ⓘ	<input type="radio"/>	<input type="radio"/>
SBU? ⓘ	<input type="radio"/>	<input type="radio"/>
HQ-Only? ⓘ	<input type="radio"/>	<input type="radio"/>
Document Type	<input type="text"/>	
Organization	<input type="text"/>	
Collaborator Access	Unlock metadata for collaborators to edit? <input type="checkbox"/>	

Proceed

To edit a document, click on the document title to access its metadata. At the bottom of the page, the user can click on a button marked “Edit”. This opens a pop-up for the user to edit auto-filled metadata, as well as add data such as author(s), publication date, etc. The edit pop-up can also be opened using an icon with a pencil in the upper right of the toolbar.





Some fields in the metadata are fillable (Title, Publication Date, Description). Users can simply type the relevant information. Others draw from a provided list. These have tags next to them. New tags can be added by clicking “Add” next to the metadata the user desires to edit. Irrelevant or unnecessary tags can be removed by clicking on the red “-” symbol on the tag. After all changes have been made, click the “Save” button at the bottom of the pop-up. If “Save” is not clicked, and the pop-up is closed using the “x” button in the upper right corner, changes will be discarded.

**Title** Actinide Packaging and Storage Facility (APSF)

**Author** Anthony Lavietes Add

**Sponsoring Office** Add

**Document Type** Report Add

**Source Organization** International Safeguards Project Office Add

**Publication Date** 10/1/1999

**Description**

**Keywords** autonomously guided vehicle CZTID Multichannel Analyzer MicroNOMAD  
unattended monitoring remote monitoring radionuclide storage APSF

**Location** Add

**Date** Add

**URL** Add

**Identifier** ISPO-440 UCRL-ID-136420 Add

**Format** application/pdf; version=1.3

**Sensitivity** Add

Save

### 5.3 Delete Document

Users may delete documents that they own. In order to delete a document, the user must select the document to delete and access its metadata. On the right side of the toolbar at the top of the screen, there are three widgets to edit, archive, or delete a document. Select the third widget to delete the document. A pop-up will ask for confirmation in deleting the document. Clicking “OK” will delete the document from the repository.



### 5.4 Official Use Only Documents

Official Use Only (OUO) documents can be uploaded to SKR.. When uploading OUO documents, ensure that the question labeled “OUO?” is filled in as “yes”.

A screenshot of the "Upload Files" dialog box. At the top, it shows the filename "Joint Study of Improved Safeguards Methodology Using No-Notice Randomized Inspection at JNCs Pu Handling Facilities.pdf", its size "4415195", and the modification date "11/1/2019, 1:38:49 PM". Below this is a form with several fields: "OUO?" with a radio button selected under "Yes" (indicated by a red arrow), "SBU?" with a radio button under "No", "HQ-Only?" with a radio button under "No", "Document Type" with a dropdown menu, "Organization" with a dropdown menu, and "Collaborator Access" with a checkbox labeled "Unlock metadata for collaborators to edit?". A "Proceed" button is located at the bottom right.

Headquarters has the ability to monitor and screen all OUO documents uploaded to SKR on an individual basis. Headquarters is allowed to decide which OUO documents can be released openly to all members on SKR or if the document should be marked “Headquarters only”. If a document is marked with an HQ-Only designation, even the uploader of the document is unable to view the document once it is uploaded, unless the uploader has the appropriate permissions.

### 5.5 Sensitive but Unclassified Documents

Uploading Sensitive but Unclassified (SBU) documents works the same way as uploading OUO documents. When uploading SBU documents, ensure that the question labeled “SBU?” is filled in as “yes”.



Name	Size	Modified	Status
Joint Study of Improved Safeguards Methodology Using No-Notice Randomized Inspection at JNCs Pu Handling Facilities.pdf	4415195	11/1/2019, 1:38:49 PM	

OUO? ☒ Yes ☐ No  
 SBU? ☒ Yes ☐ No  
 HQ-Only? ☐ Yes ☐ No  
 Document Type:   
 Organization:   
 Collaborator Access: ☐ Unlock metadata for collaborators to edit? ☐

Proceed

SBU and OUO documents are distinguished by different markings on the pages of the document. Please ensure when uploading that SBU and OUO documents are marked appropriately.

## 5.6 Headquarters Only Documents

HQ-Only documents are a special classification of documents in SKR. HQ-Only documents are locked to all SKR users except for NA-241 staff and users with NA-241-approved access. When uploading an HQ-Only document, ensure that the radio button labeled “HQ-Only?” reading “yes” is filled in.

Name	Size	Modified	Status
Joint Study of Improved Safeguards Methodology Using No-Notice Randomized Inspection at JNCs Pu Handling Facilities.pdf	4415195	11/1/2019, 1:38:49 PM	

OUO? ☒ Yes ☐ No  
 SBU? ☐ Yes ☐ No  
 HQ-Only? ☒ Yes ☐ No  
 Document Type:   
 Organization:   
 Collaborator Access: ☐ Unlock metadata for collaborators to edit? ☐

Proceed

Certain document types are automatically designated as “HQ-Only”. In this case, even though the “HQ-only?” radio button is not marked “yes”, the document will automatically be locked to all users except those with the appropriate permissions.

### 5.6.1 Changing Documents to HQ-Only

SKR provides a remedy for the case where a user decides that a document should only be available to Headquarters users (i.e., NA-241 staff) after it has been added to the repository. When the user selects a document to manage or view, the metadata includes Sensitivity, which provides the option “HQ-Only;” the user can click “HQ-Only” to restrict access.

The screenshot shows a metadata form for a document titled "Joint Study of Improved Safeguards Methodology Using No-Notice Randomized Inspection at JNCs Pu Handling Facilities.pdf". The form includes the following fields and options:

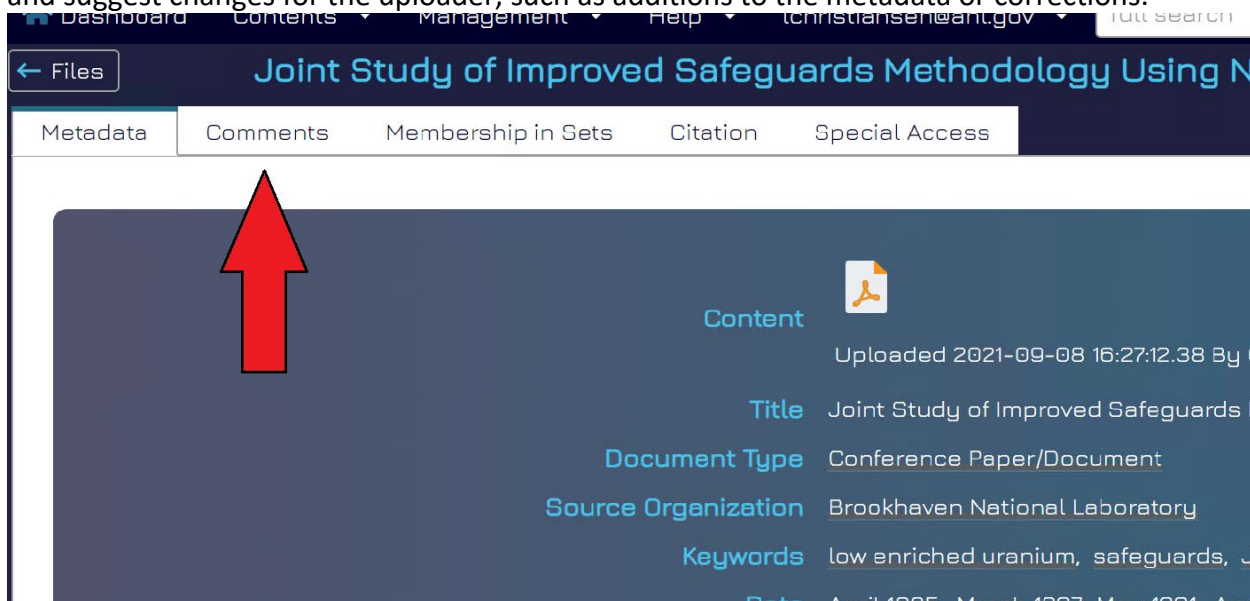
- Author:** Add
- Sponsoring Office:** Add
- Document Type:** Conference Paper/Document, Add
- Source Organization:** Brookhaven National Laboratory, Add
- Publication Date:** MM/DD/YYYY, [Calendar Icon]
- Description:** [Text Field]
- Keywords:** low enriched uranium, safeguards, Joyo, scrap, nuclear material, Add
- Location:** Add
- Date:** April 1985, March 1997, May 1991, April 2000, February 1997, September 1991, December 1996, Add
- URL:** Add
- Identifier:** Joint Study of Improved Safeguards Methodology Using No-Notice Randomized Inspection at JNCs Pu Handling Facilities.pdf, Add
- Format:** application/pdf
- Sensitivity:** Official Use Only, Headquarters Only, Sensitive But Unclassified, Sensitive But Unclassified

### 5.6.2 Requesting access to HQ-Only

Non-HQ users have the ability to request access to HQ-Only items. The user must select the title of the HQ-Only document of interest, then fill out and submit the form the user is redirected to. HQ Users will receive an email with the completed form and can grant or deny access to the document. SKR will send an automated message to the requester when access is granted. It is important to note that Non-HQ users must request access to each HQ-Only document individually and will only be granted access to documents they have filled out the form for.

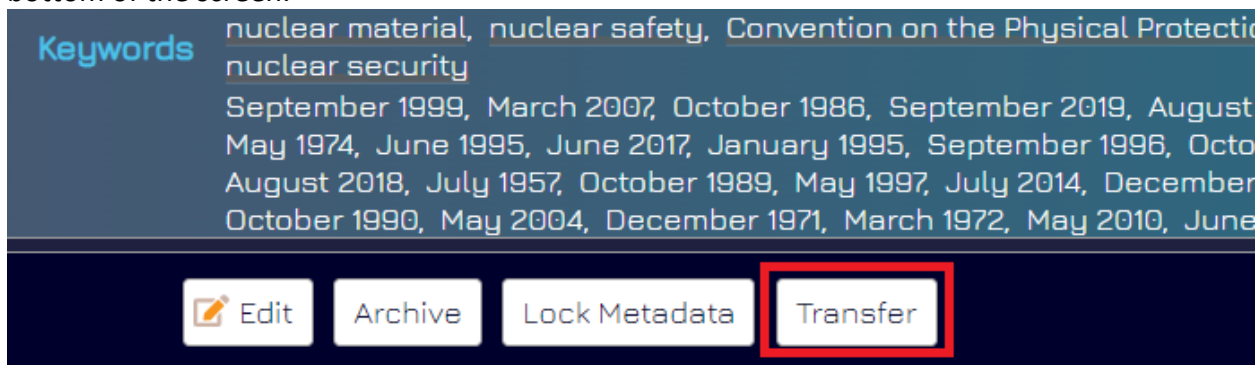
## 5.7 Comments

All users can comment on uploaded documents. In order to add a comment, click the “Comments” tab while viewing a document’s metadata. Comments can be added to provide addendums, recommend additional documents or reports relevant to the selected document, and suggest changes for the uploader, such as additions to the metadata or corrections.



## 5.8 Transfer Document Ownership

SKR users who have uploaded documents have the ability to transfer document ownership and the ability to edit or lock/unlock the metadata. Document uploaders can transfer document ownership by viewing the metadata of the document, then clicking the “Transfer” button at the bottom of the screen.



The uploader can choose from a drop-down menu to whom they wish to transfer document ownership. All document transfers are final and cannot be undone by the original owner.

IAEA Annual Report 2019

×

Transfer Document Ownership for *IAEA Annual Report 2019*

Warning:

 Transferring document ownership to another user may remove your ability to edit this document! This action cannot be undone.

To:

▼

Transfer

Only content managers, HQ users, and system administrators can transfer a document they do not own. For other users, the “Transfer” button will only be available on documents they own.

## 6.0 Appendices

### 6.1 Acronyms

ANL	Argonne National Laboratory
BNL	Brookhaven National Laboratory
DOE	Department of Energy
HSPD-12	A type of identification badge provided to DOE and national laboratory staff
IAEA	International Atomic Energy Agency
INL	Idaho National Laboratory
LANL	Los Alamos National Laboratory
LLNL	Lawrence Livermore National Laboratory
NA-241	Office of International Nuclear Safeguards (OINS)
NNSA	National Nuclear Security Administration
NRC	Nuclear Regulatory Commission
OUO	Official Use Only (similar to SBU)
PIV/PIV-1	An identification credential similar to an HSPD-12 badge
PNNL	Pacific Northwest National Laboratory
SBU	Sensitive but Unclassified (State Department term for OUO)
SKR	Safeguards Knowledge Repository
SNL	Sandia National Laboratories
SRNL	Savannah River National Laboratory
UNVIE	U.S. Mission to International Organizations in Vienna
Y-12	Y-12 National Security Site

## 6.2 Frequently Asked Questions (FAQ)

### Who is eligible to use SKR?

SKR's access is restricted to U.S. government employees and contractors with jobs relevant to international safeguards.

### How do I get access to SKR?

To get access for SKR, you must contact the SKR Help Desk ([skrhelp@anl.gov](mailto:skrhelp@anl.gov)) to request an account for the user. The SKR Help Desk will send the SKR User Agreement to the prospective user. Once the completed form has been returned, the Help Desk representative will confer with NA-241, which at this time, approves all accounts. Login information will be sent once the account has been created. [Note: As the protocol for using SKR matures, it is foreseen that each laboratory/plant/site/agency will have an administrator who will vet users. However, this is not currently the case.]

### How do I find out who my administrator is?

Laboratory/Plant/Site/Agency administrators are not currently in place. All user requests must be sent to the SKR Help Desk ([skrhelp@anl.gov](mailto:skrhelp@anl.gov)) and be approved by NA-241.

### If I upload a document, can I modify or delete the document?

Uploaders of open access documents (not HQ Only) have free access to edit the metadata and/or delete the document he/she owns. See sections 5.2 and 5.3 for additional instructions on how to edit and delete documents.

### If I upload a document, can another user modify or delete the document?

If the document is locked, only the owner and administrator have the ability to modify the document's metadata or delete the document. If a document is unlocked, collaborators are able to modify the metadata and delete the document. When uploading, the user can unlock the document by checking the box marked "Unlock for collaborators to edit metadata?". The owner can also lock or unlock the document by going to the document's metadata screen and selecting the box towards the bottom of screen labeled with either "Lock Metadata" or "Unlock Metadata".



### What kinds of documents are included in SKR?

SKR contains a wealth of documents regarding international safeguards and related topics. Documents will be added throughout the lifetime of the repository. It is expected that all publications resulting from NA-241 projects will be included in SKR.

### Can I download documents from SKR?

Yes. To download, click on the PDF icon next to the title of the document. This will open the document in a separate window. It can be downloaded to your computer from that window.

### 6.3 Intern Guidance (prepared December 27, 2017)

This guidance was prepared in FY2018 for interns to use in preparing documents for SKR. It is included here for similar use in the future.

## **Safeguards Knowledge Repository Guidance for Document Preparation**

### **Background:**

The National Nuclear Security Administration's Office of Defense Nuclear Nonproliferation, Office of International Nuclear Safeguards (OINS, NA-241), commissioned a project to explore the creation of a repository of international safeguards documents and information. The Safeguards Knowledge Repository (SKR) is a platform envisaged to provide practitioners in the U.S. safeguards community with convenient, one-stop access to relevant safeguards documents, including documents sponsored by OINS produced by the national laboratories and documents produced by the International Atomic Energy Agency (IAEA). In FY2017, the project team developed the vision for SKR. In FY2018, the project is continuing with the development of SKR as proposed to OINS. In FY2018, OINS plans to provide funding to each participating national laboratory to hire one or two interns who will identify documents resulting from OINS-funded projects that should be archived in SKR.

### **Guidance:**

This guidance has been prepared for the interns who are tasked with identifying and preparing documents for uploading to the repository. Documents of primary interest are those that resulted from the Next Generation Safeguards Initiative, but documents from other sources, such as the International Atomic Energy Agency, are also of interest. Documents include reports to NNSA, books, conference papers and posters, journal papers, and trip reports. Later phases of document identification will address documents that predate NGSI and those originating from the IAEA.

Each intern will focus on the documents produced by the laboratory to which they are assigned. Principal investigators and laboratory archives are primary sources of documents. The interns' mentors will describe their laboratory's procedures and processes for accessing archives materials. Most documents produced by the laboratory will have been reviewed under the laboratory's publication system. The resulting "review and release" number will attest to the document being unclassified. Documents that were not formally archived are of interest, but they must be reviewed by a derivative classifier and export control reviewer (where relevant) before being identified for placement in SKR. Interns are encouraged to communicate with their

counterparts at other labs to share good practices and to ensure that documents resulting from collaborations are captured and not duplicated.

### **Basic requirements:**

**File Format:** Each file will be uploaded in the form of a text-searchable PDF.

**Filename format:** The filename should be the same as the document title. The filename must be 255 characters or less; individual words in the title should be separated by a space. SKR will use the filename as the document name in the repository.

**Classification:** All documents must be unclassified. SKR will be certified to store Official Use Only documents. Password protection for documents will not be necessary, as the repository will have restricted access.

**Metadata:** Metadata will be entered, along with the filename, on the specially formatted Excel spreadsheet in accordance with the guidelines below.

### **Metadata:**

The following metadata is required for each document and should be recorded in the Excel log designed for this purpose:

**Document title:** The title of the document exactly as it appears on the cover page or at the beginning of the document. (Note: SKR will automatically use the filename as the document title, so users should save the file with the document title as the filename.)

**Publication Date:** The date of the document as it appears on the cover page or in the header or footer of the document in dd/mm/yyyy format.

**Document Category:** Describes the type of content (e.g., NA-241 deliverable, conference paper, book) from the provided list in the Excel log.

**Author(s):** The authors of the document. The full last name should be recorded in the Excel log. Also provide a first full name or initial. A middle name or initial should also be provided, if available.

**Organization:** The organization responsible/leading the publication, submission, or release of the item. While many products produced for OINS have authors representing multiple organizations, typically one organization is responsible for the final release of the product. This is the organization that should be represented in this metadata field.

**Review and Release (R&R) number (if applicable):** The number assigned by the laboratory to demonstrate that the document has been reviewed and found to be unclassified. Library of Congress or other number may be used instead of a laboratory-specific number if applicable. Some documents, such as IAEA Gov and INFCIRC documents, will not have such a number.<sup>2</sup>

**Keywords:** Suggested keywords are provided in the SKR taxonomy. Keywords will help future users find the document in the repository by describing the subject matter and relevance of the

---

<sup>2</sup> This metadata field does not currently exist.



document. An unlimited number of keywords may be defined; the keywords should be limited to those already in the SKR taxonomy to the maximum extent practical.

**Storage of identified files:**

File identification may begin before SKR is ready to receive files. Therefore, files identified by the interns should be formatted as a searchable PDF file, named as directed in the requirements section, and stored in a common, accessible location for swift retrieval once uploading of documents begins.

The SKR development team will be available to answer questions as they arise during this document identification phase. ANL, BNL, PNNL, SNL and Y-12 are represented on the development team. For other laboratories, the following SKR team members are available to assist:<sup>3</sup>

Justin Reed	Phone: 630-252-3138	Email: JKReed@anl.gov
Susan Pepper	Phone: 631-344-5979	Email: Pepper@bnl.gov
Amanda Sayre	Phone: 206-528-3244	Email: Amanda.Sayre@pnnl.gov
Karen Hogue	Phone: 865-801-2054	Email: Karen.Hogue@cns.doe.gov
Natacha Peter-Stein	Phone: 505-844-9842	Email: NPeters@sandia.gov

---

<sup>3</sup> Note that the points-of-contact are out of date. Please contact [SKRhelp@anl.gov](mailto:SKRhelp@anl.gov) if you have questions about document identification or uploads.