

The Regulatory Authority Information System

RAIS 3.1 WEB

User's Guide

Contents

1 Introduction.....	3
1.1 Background.....	3
1.2 Objectives	3
1.3 Scope.....	4
1.4 Structure.....	4
2 Overview	5
2.1 Accessing RAIS 3.1 Web	5
2.2 RAIS 3.1 Web Interface.....	6
3 The Input menu.....	14
3.1 Facilities.....	14
3.2 Departments	17
3.3 Radiation Generators	19
3.4 Sealed Sources	23
3.5 Unsealed Sources	27
3.6 Associated Equipment	31
3.7 Authorizations.....	33
3.8 Inspections	36
3.9 Enforcements and Responses.....	39
3.10 Radiation Events	41
3.11 Workers.....	46
3.12 Worker Tasks	51
3.13 Service Providers	52
3.14 Accreditations	54
3.15 Training Courses.....	55
3.16 Radiation Generator Models.....	56
3.17 Sealed Source Models.....	58
3.18 Associated Equipment Models	59
3.19 Manufacturers	60
3.20 ICSRS Connection.....	62
4 The Query menu	64
4.1 Executing Queries.....	65
4.2 Special Case: Radiation events report.....	66
5 The Statistics menu	69
6 Tools	70
6.1 Search Tool	70
6.2 Sealed Source Activity Calculations.....	71
6.3 The Radiation Events Search Tool	71
6.4 Additional Tools	73
7 Message Box	74
7.1 The validation process	74
8 Annex A Consistency Checks.....	78
9 Annex B Guide for Good Practice.....	82

10 Annex C How to...	83
11 Annex D Technical how to..	86

1 Introduction

1.1 Background

Within its statutory functions in providing for the application of Safety Standards, the International Atomic Energy Agency (IAEA) has been developing the Regulatory Authority Information System (RAIS) as part of a supporting set of actions designed to assist countries in managing their regulatory control programme in accordance with international standards and guidance, including the Code of Conduct on the Safety and Security of Radioactive Sources and supplementary Guidance.

RAIS promotes a consistent and common approach to the regulatory control of radiation sources, whilst offering flexibility to respond to specific needs of the countries, with due account of their national legislative framework, administrative structure and institutional and regulatory framework.

The previous version, RAIS 3.0, has been issued in 2004 in MS Access environment. In 2006, it was extended for implementation on SQL Servers. As of the date of this document, this version is in use, to varying degrees, in more than 63 countries.

The current version, RAIS 3.1 Web, is the most recent product in RAIS evolution series. It provides a web interface for RAIS 3.0 and incorporates additional features and enhancements. Compatibility with RAIS 3.0 is maintained. The reader is advised to refer to *RAIS 3.1 Web Regulatory Model* for a general description.

RAIS 3.1 Web is distributed with a full set of documentation. The installation package of RAIS 3.1 Web contains the following documents:

- 1 ***RAIS 3.1 Web Regulatory Model:*** This document describes the underlying regulatory model and emphasizes its ability to be ‘tailored’ according to the national regulatory systems. This document has a pure regulatory character with no technical details.
- 2 ***RAIS 3.1 Web Administrator’s Guide:*** This is a technical document consisting of two parts: Part I describes the RAIS 3.1 Web installation process and its customization to satisfy national needs. Part II describes the advanced customization mechanisms in RAIS 3.1 Web using its internal tools.
- 3 ***RAIS 3.1 Web User’s Guide:*** A technical and regulatory document explaining the day-to-day work with RAIS 3.1 Web. It also contains tips for good practice and for resolving some typical regulatory situations in form of *How to’s*.

1.2 Objectives

This document provides step-by-step explanation on the use RAIS 3.1 Web to manage information related to the regulatory activities.

1.3 Scope

This document covers RAIS 3.1 Web functionalities, which are usually performed by the RAIS operators. Functionalities related to RAIS administration are covered in details in *RAIS 3.1 Web Administrator Guide – Part I and Part II*.

In particular, this document describes how to:

- Enter data into RAIS 3.1 Web.
- Modify existing data.
- Delete existing data.
- Retrieve information and extract reports through report queries and statistics.
- Use the radioactivity calculation tool, search tool and the radiological events search tool.
- Validate data modification actions initiated, for example, by authorized representatives of facilities.

Guidance for good practice and sample approaches in typical regulatory situations are provided in the annexes.

1.4 Structure

The introductory Chapter 2 provides a general overview on RAIS 3.1 Web. It describes the login process and the RAIS 3.1 Web interface. Chapter 3 deals with the functionalities of the *Input menu*, which facilitates data entry, modification, deletion and viewing. Chapter 4 describes the functions provided for in the *Query menu*, which provides for retrieving and analyzing information. Chapter 5 describes the statistical functions of RAIS 3.1 Web. Those are grouped together in the *Statistics menu*. Chapter 6 describes the functions collected under the Tools menu; and Chapter 7 addresses the *Message Box* functionalities, which is used for validating data modification actions initiated by, for example, authorized representatives of facilities.

Annex A lists the consistency checks included in RAIS 3.1 Web. Annex B contains tips for efficient use of RAIS 3.1 Web, and Annex C provides answers to the use of RAIS 3.1 Web in typical regulatory situations.

2 Overview

2.1 Accessing RAIS 3.1 Web

RAIS 3.1 Web is started by entering the appropriate web address (the URL of RAIS 3.1 Web) in the address bar of Internet Explorer (IE6 or above)

The RAIS 3.1 Web login mask will be displayed, requesting the user to:

- Select the interface language
- Enter a user name
- Enter a password

The screenshot shows the RAIS 3.1 Web login interface. At the top, a blue banner displays 'RAIS 3.1 Web' and 'Regulatory Authority Information System'. Below this, the main content area is white and contains the following elements: a 'Language:' label with a dropdown menu currently showing 'English'; 'Username:' and 'Password:' labels with corresponding text input fields; a 'Login' button; and a checkbox labeled 'Change password after successful login'. At the bottom of the page, a blue footer bar contains the text 'To view general public information, simply login as "guest".' and a button labeled 'Account request form'.

Figure 1. Login mask

At start, RAIS 3.1 Web will not display the name of the last user who successfully logged in for security reasons. The password field will always be initially blank. After both user name and password have been entered, click the **Login** button.

Note

If user name and password are not correct, RAIS 3.1 Web will display an error message. RAIS 3.1 Web does not create any reports about illegal access attempts and does not lock user accounts after a given number of illegal access attempts.

To get a user account, please contact a RAIS administrator, or submit an online account request through RAIS 3.1 Web login mask.

2.1.1 Access Privileges

The user access privileges in RAIS 3.1 Web are described in chapter 7 of *RAIS 3.1 Web Administrator's Guide – Part I*. For convenience, a brief summary is provided in this section.

Please recall that while RAIS 3.1 Web provides by default five preconfigured access privileges in form of built-in *user types*, RAIS administrators can still assign different access privileges to the users as needed.

The five built-in user types are:

Administrator: This user type has full access in RAIS 3.1 Web, including adding, modifying, deleting and viewing all data, modifying regulatory system model and modifying regulatory system data. Additionally, administrators are allowed to define users into the RAIS 3.1 Web system and assign access permission.

Regulator: This user type is allowed to view, modify, add and delete regulatory data, and only to view regulatory system data. They are not allowed to alter regulatory system data.

Restricted Access Regulator: This user type is allowed to view regulatory data, but they are not allowed to add, modify or delete any regulatory data or regulatory system data.

Licensee: Users of this type are authorized representatives of facilities. In addition to the global and public information, this user type is allowed to access only regulatory data about its own facility. However, adding, editing and deleting any data related to their facility is subject to validation process by the regulatory body.

Guest: This user type is only allowed to view global and public information, such as statistical data. RAIS guests are not allowed to add, modify or delete any regulatory data or regulatory system data.

2.2 RAIS 3.1 Web Interface

2.2.1 General description

After a user has successfully logged in, the RAIS 3.1 Web main screen will be displayed.

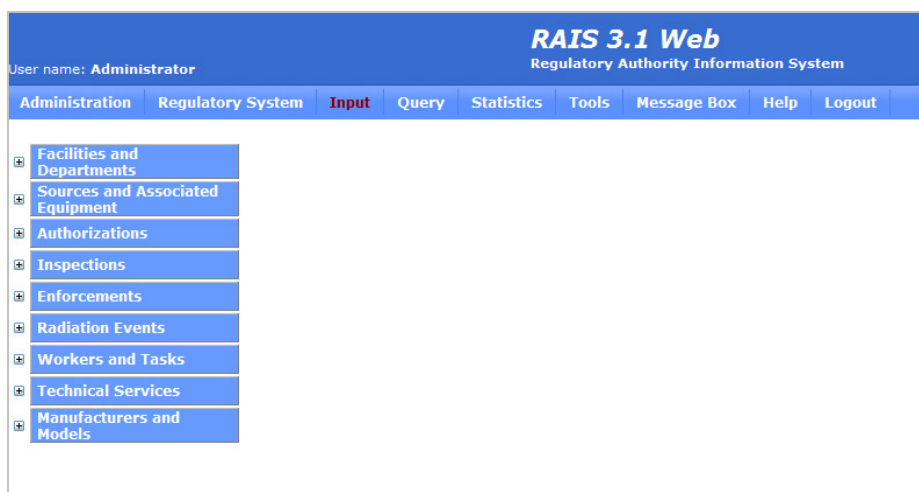


Figure 2. RAIS 3.1 Web screen with input mask

RAIS 3.1 Web main screen has in its upper part a *screen header* and a *menu bar*. When a menu from the menu bar is selected, the area below the menu bar is divided¹ in a *treeview* on the left-hand-side, and a *data mask section* on the right-hand side.

¹ This is applicable for all menus but “Message Box”.

Depending on the access privileges granted to the logged-in user, some of the menus in the menu bar and treeview will be hidden.

Depending on the selected menu:

- The treeview displays different set of functions, ordered in submenus and menu items
- The information displayed in the header is adjusted.

Depending on the selected menu item, an appropriate mask is loaded in the right side section.

2.2.1.1 The menu bar

The menu bar has the following menus:

- **Administration:** provides for the administration and regulatory model customization of RAIS 3.1 Web.
 - This menu is only accessible by the built-in user type *Administrator*.
- **Regulatory System:** Provides access to the regulatory system data. The access privileges to this menu for the built-in user types are:
 - Full access for *Administrator*
 - View access for *Regulator* and *Restricted Access Regulator*
 - View access to the public² menu items only for *Licensee* and *Guest*
- **Input:** provides for entering, modifying, deleting data as well as retrieving information about individual items and their current status. The access privileges to this menu for the built-in user types are:
 - Full access for *Administrator* and *Regulator*
 - View access for *Restricted Access Regulator*
 - Full access, only to their own facility data, for *Licensee*
- **Query:** Provides for retrieving and analyzing information or information about individual items and their current status. The access privileges to this menu for the built-in user types are:
 - granted for *Administrator*, *Regulators* and *Restricted Access Regulator*
 - *Licensee* can also access this menu; however it can only retrieve information related to its own facility.
- **Statistics:** provides for retrieving statistical information. Contrary to the *Query* menu, no information about individual items is available through this menu.
 - This menu is accessible by all built-in user types as it provides global information only.
- **Tools:** provides a collection of tools such as radioactivity calculation tool for sealed sources and search tools in addition to a few preference settings. The access privileges to this menu for the built-in user types are:
 - Full access for *Administrator*
 - *Regulator* and *Restricted Access Regulator* have access to the search tools and calculations tools only

² By default, the menu items “Regulatory Reference” and “Coordination and Cooperation” are public.

- Licensee has access to the search tools and calculations tools, however the tools return data related to the Licensee’s facility only.

Additionally the menu bar has the following items:

- **Message Box:** Used in the validation process. It is accessible by all built-in user types but *Guest*.
- **Help:** displays context sensitive online help in a popup window. It is accessible by all built-in user types.
- **Logout:** A command button used for exiting RAIS 3.1 Web

2.2.1.2 The Treeview

The tree-view is a categorization of information items, which are related to a menu. The information items are referred to by *menu items* and are grouped in *submenus*.

Submenus always have a “+” sign to their left side. The submenus are opened (or expanded) by a double-click or by clicking on the “+” sign to their left.

2.2.1.3 The screen header

The screen header in RAIS 3.1 Web displays the current user logged in into RAIS 3.1 Web.

Additionally, if the *Input* menu is selected, it displays the selected facility and department, if any; and these selections act as a global filter in the system. See sections 3.1.1 and 3.2.1.

2.2.1.4 The data mask section

This part of the screen displays the appropriate data mask when a particular *menu item* is clicked.

RAIS 3.1 Web has two categories of masks:

- Dynamic masks as found under the menus regulatory System, Input, Query and Statistics. Dynamic masks are generally associated with data tables and are used to list, view, add, edit or delete data. There are four different types of dynamic masks in RAIS 3.1 Web. All masks of a given type have similar layout and similar behavior. See section 2.2.2 below.
- Specific masks, as found under the menus Administration, Tools and Message Box. They are used for particular functions of RAIS 3.1 Web. Each specific mask can have its own layout and its own behavior.

The specific masks belonging to the *Administration* menu are described in details in *RAIS 3.1 Web Administrator’s Guide – Part I*; The specific masks associated with the *Tools* menu and the *Message Box* are described in chapters 6 and 7, respectively.

For some menu items, proper handling of data requires more than one mask. In such cases, the menu item is associated with a set of dynamic masks displayed in different tabs. For

example, The Radiation Generator menu item involves *Details*, *Status* and *Calibration Status* masks. See Figure 3.

The image shows a web form titled 'Radiation Generator Details'. At the top, there are three tabs: 'Radiation Generator Details' (active), 'Radiation Generator Status', and 'Calibration Status'. Below the tabs, there are five input fields: 'Regulatory Authority Number' with value 'GEN-001-001', 'Serial Number' with value 'GH7563NK', 'Type' with value 'Calibration Xray generator', 'Manufacturer' with value 'ALSTOM', and 'Model' with value '[Unknown]'. At the bottom, there are two rows of buttons. The first row contains 'Back To List', 'Add', 'Edit', 'Delete', and 'View log'. The second row contains 'Undo' and 'Apply'.

Figure 3. The tabs (for radiation generators as an example)

2.2.2 Types of dynamic masks

There are four types of dynamic masks:

- **Details mask:** Usually used in the *Input* menu. This mask type is referred to also as ‘Single Row Mask’
- **List mask:** Used in the *Regulatory System* as well as the *Input* menus. This mask type is referred to also as ‘Single Row Mask with List’
- **List with Filter mask:** Usually used in the *Input* menu
- **Parameters mask:** Usually used in the *Query* and *Statistics* menus.

2.2.2.1 List with Filter mask type

This mask is used in the *Input* menu for listing the relevant data when a menu item is clicked.

This mask is divided into:

- A set of drop-down boxes, called *preselection filters*, in the upper part.
- A data list in the middle part of the mask
- A set of command buttons at the mask bottom.

The image shows a web form titled 'Select Facility'. At the top, there are three dropdown menus labeled 'Practice', 'Region', and 'District'. Below these, there is a large empty rectangular area, likely for a data list. At the bottom, there are four buttons: 'View', 'Add', 'Delete', and 'Query'.

Figure 4. A list with filter mask (for facility as an example)

The drop-down boxes are used to set filters to reduce data amount displayed in the data list, facilitating faster finding of a specific data set. For example the list of facilities may be filtered by practice, region and district. Additionally, they have the feature of defining default values when adding new data records. If, for example, a specific radiation generator type has been selected in the preselection filters of radiation generators, this type will be used as default value when entering a new radiation generator.

To summarize, preselection filters are used in RAIS 3.1 Web for:

- Reducing the overall amount of displayed (already existing) information by applying context-sensitive filtering criteria
- Defining default values for new data to be entered

The preselection filters vary, depending on the menu item selected in the treeview. These variations and special considerations are detailed in chapter 3.

Preselection filters are customizable. Details and examples are given in *RAIS 3.1 Web Administrator's Guide –Part II*.

The command buttons of the List with Filter mask type are:

- **Query³**: When the **Query** button is clicked, the data list gets populated by a summary of the relevant data records.

Once data records are listed, a single record may be selected by clicking it in list. A selected record may be deleted or edited for modification.

Note

multiple selections of data records is not possible

- **Add**: By clicking the **Add** button, a details type mask is opened for entering a new data record. The details mask will be in *edit mode*. See section 2.2.4.
- **Delete**: By clicking the **Delete** button, the selected data record is deleted. Prior to deletion, RAIS 3.1 Web will ask for confirmation.

Note

If the selected data record is protected (see RAIS 3.1 Web Administrator's Guide - part II), RAIS 3.1 Web will display an informative message and immediately abort the deletion.

- **View**: By clicking the **View** button, the details mask of the currently selected record is displayed. The details mask will be set into *view mode*. See section 2.2.3.

³ In RAIS 3.1 Web, the word “Query” is used in different meanings. In addition to its general meaning as a database object type, it denotes a menu in the menu bar; and a command button on the List with Filter mask type. The reader should pay attention for the context where this word is used in order to avoid confusion!

2.2.2.2 Details mask type

Details masks display the attributes of information items, and a set of command buttons at the bottom.

Figure 5. A details mask (for facility as an example)

The attributes are displayed in a column. Each attribute is visible in a field, and the name of the attribute is displayed as labels on the left hand side of the field.

Field labels are colored according to the necessity of these fields: red, blue or black colors are used for mandatory, recommended or optional fields, respectively (see section 2.2 of *RAIS 3.1 Web Regulatory Model*).

The command buttons are:

- **Add:** By clicking the **Add** button, a new data record can be entered. The details mask will be in *edit mode*.
- **Edit:** By clicking the **Edit** button, the details of the currently displayed data records may be edited. The details mask will be in *edit mode*.
- **Delete:** For deleting the currently displayed record
- **Back to List:** To return to the related list of records
- **View Log:** By clicking this button, a pop-up window appears listing information on all actions that have been made to the current record
- **Undo:** To reject a data addition or modification action
- **Apply:** To confirm the data addition or modification actions

2.2.2.3 List mask type

List masks are most often used in RAIS 3.1 Web for information items that do not require any pre-selection filters. It is used in the *Regulatory System* menu as well as in the *Input* menu

List mask type extends the details mask type by an additional list on the left-hand-side, showing all data records. This list allows the selection of a single data record. The attributes of this data record will then be displayed in the details part on the right-hand-side.

The command buttons on the list mask are similar to those on the details mask and behave similarly.

Similarly to the details mask, a list mask can be either in *view mode* or *edit mode*, depending on the actions being taken.

Figure 6. The list mask

2.2.2.4 Parameters mask type (Queries)

This mask is used in the *Query* and *Statistics* menus for setting the parameters of the relevant query when a menu item is clicked.

Figure 7. The parameters section

In the lower part of the parameters mask, a set of options and command buttons are located for printing and on-screen displaying of the report associated with the selected menu item.

The command buttons are:

- **Preview:** For viewing the report on the screen. The report will be viewed using *Microsoft Report Viewer Redistributable 2008* (see *RAIS 3.1 Web Administrator's Guide – Part I*). The report viewer includes options for exporting the report into Excel or Acrobat (pdf) files, and for printing.
- **Export to Excel:** By clicking this button, the report's data will be exported to a csv text file format, which can be read by Microsoft Excel.

2.2.3 The view mode

This mode is active when no data modifications actions are being taken, i.e. no data records are being added or edited. In this mode, the command buttons *Back to List*, *Add*, *Edit* and *Delete* will be enabled. The command buttons *Undo* and *Apply* are disabled. All other functions on the RAIS 3.1 Web screen are enabled (menus, treeview, etc.)

2.2.4 The edit mode

This mode is activated when a data modification action is taking place in RAIS 3.1 Web, i.e. a data record is being added or edited through the details or List mask type.

In this mode,

- The **Undo** and **Apply** command buttons are enabled. All other command buttons are disabled.
- The menu bar is locked
- The Treeview is locked.

The *Edit mode* may be quit only by clicking either the **Apply** button for saving modifications or the **Undo** button for reverting.

3 The Input menu

This chapter explains the functions of the input mask, i.e. adding, modifying, deleting and viewing data.

Upon saving new or modified data, appropriate internal consistency checks are run to test as far as possible the correctness of these data. Annex A briefly describes these internal consistency checks. If a consistency check fails, a warning message appears with request for action.

Note

For practical reasons, no automatic rejection of data savings is implemented, however, RAIS regulators are strongly advised to follow up any warnings about inconsistencies.

All data modifications (modifications, additions and deletions) are recorded by RAIS 3.1 Web together with user name and date of modification.

3.1 Facilities

3.1.1 Pre-selecting a facility

- 1 Click the submenu ***Facilities and Departments.***
- 2 Click the menu item ***Facilities.***

The pre-selection view for facilities will be displayed.

Selected Facility: **EXAMPLE-001 (Example Facility)** [Clear](#)
 Selected Department:
 User name: **Administrator**

RAIS 3.1 Web
 Regulatory Authority Information System

Administration | Regulatory System | **Input** | Query | Statistics | Tools | Message Box | Help | Logout

Facilities and Departments
 Departments
Facilities

Sources and Associated Equipment
 Authorizations
 Inspections
 Enforcements
 Radiation Events
 Workers and Tasks
 Technical Services
 Manufacturers and Models

Select Facility

Practice

Region

District

RAN	Facility Name	Location	RPO
EXAMPLE-001	Example Facility 1		
EXAMPLE-002	Example Facility 2		
EXAMPLE-003	Example Facility 3		
EXAMPLE-004	Example Facility 4		
EXAMPLE-005	Example Facility 5		

View Add Delete Query

Figure 8. Pre-selection view for facilities

The pre-selection view for facilities allows filtering of facilities by

- practice
- region
- district

All filters are empty if the facility pre-selection view has been opened for the first time and the Query button is clicked; all known facilities are displayed.

If a practice is selected, only facilities working in this practice will be displayed in the result list upon clicking the **Query** button

If a region is selected and the **Query** button is clicked, the result list will be filtered also for the region. Additionally, only districts within the selected region will be available for selection.

If a district is selected and the **Query** button is clicked, the result list will be filtered also for the district.

Note

If either filter is empty or if [Unknown] has been selected for this filter, this filter does not apply.

Note

Many filters in RAIS 3.1 Web are context sensitive. If, for example, a region has been selected, it is clear that only districts belonging to the selected region will be selectable. On the other hand, both regions and districts are not related by any means to practices, so selecting a practice has no effect on selectable regions or districts.

Each time a filter is set and the **Query** button is clicked, the result list shows facilities complying with all filters. From the result list, a facility may be selected by a single click with the left mouse button.

Selecting a facility (or department) is a general purpose selection; this selection will be used as default data when entering, for instance, new inspections and source histories. It will also be used as additional, global filter when displaying other data. To keep users informed about the currently selected facility, filter even if other masks are displayed, the name of this facility is always displayed in the screen header.

Note

The global filtration and the default facility mechanisms do not automatically apply for new custom tables and custom masks. Appropriate customization will be needed to activate these mechanisms for custom tables and custom masks. Please refer to RAIS 3.1 Web Administrators Guide – Part I and Part II for details.

By selecting another facility in the result list, the newly selected facility's name will be displayed in the screen header, and hence this facility will act as general purpose filter as well as default facility.

The currently selected facility may be deselected by clicking “clear” located next to the selected facility. The facility name disappears and the global filter will be removed.

3.1.2 Entering a new Facility

- 1 Expand the submenu ***Facilities and Departments***.
- 2 Click the menu item ***Facilities***.

The pre-selection view for facilities will be displayed.

- 3 Set pre-selection filters (see 3.1.1).
- 4 Click the ***Add*** button.

The mask for facility information will be displayed, accepting data entry. A new tab will immediately be displayed in the *main form header*.

- 5 Enter the *regulatory authority number* for the new facility. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 6 Enter the *name of the facility*. This field is mandatory and must be filled in.
- 7 Select the *region* where the facility is located. This field is optional only.
- 8 Select the *district* inside the region. This field is optional only.
- 9 Enter the name of the *legal person* of the facility. This person is supposed to be the primary contact person for this facility. This field is optional only.
- 10 Enter the *phone number* of the facility. This field is optional only.
- 11 Enter the *fax number* of the facility. This field is optional only.
- 12 Enter the *address* of the facility. This field is optional only.
- 13 Enter the *current status* of the facility. This field is mandatory and must be filled in.
- 14 Select the *practices* this facility is working in.
- 15 Click the ***Apply*** button to validate your data entry.

3.1.3 Modifying a Facility

- 1 Select the facility (see 3.1.1).
- 2 Click the ***View*** button.
- 3 Click the ***Edit*** button.
- 4 Modify the appropriate facility data.

3.1.4 Deleting a Facility

- 1 Select the facility (see 3.1.1).
- 2 Click the ***Delete*** button.

Note

By deleting a facility, all data related to this facility will be deleted, including status information of sources, workers, authorization, etc. if they are related to the facility.

3.2 Departments

3.2.1 Pre-selecting a department

As departments are closely related to facilities, the pre-selection view for departments is very similar to the pre-selection view for facilities. In fact, the only difference is an additional filter, the facility the department belongs to.

- 1 Click the submenu *Facilities and Departments*.
- 2 Click the menu item *Departments*.

The pre-selection view for departments will be displayed.

Selected Facility: **EXAMPLE-001 (Example Facility 1)** [Clear](#)
 Selected Department: **DEP-EXAMPLE-001 (Example Dep 1)** [Clear](#)
 User name: **Administrator**

RAIS 3.1 Web
 Regulatory Authority Information System

Administration | Regulatory System | **Input** | Query | Statistics | Tools | Message Box | Help | Logout

Facilities and Departments
Departments
 Facilities

Sources and Associated Equipment
 Authorizations
 Inspections
 Enforcements
 Radiation Events
 Workers and Tasks
 Technical Services
 Manufacturers and Models

Select Department

Practice:
 Region:
 District:
 Facility:

RAN	Department Name	Location	RPO
DEP-EXAMPLE-001	Example Dep 1		

View Add Delete Query

Figure 9. Pre-selection view for departments

The pre-selection view for departments allows filtering departments by

- practice
- region
- district
- facility

By selecting a practice and clicking the **Query** button, only departments working in this practice will be displayed in the result list. Additionally, only facilities working in the selected practice will be available for selection.

By selecting a region and clicking the **Query** button, the result list will be filtered also for the region. Additionally, only districts within the selected region will be available for selection.

By selecting a district and clicking the **Query** button, the result list will be filtered also for the district.

By selecting a facility and clicking the **Query** button, the result list will be filtered also for the facility.

Note

If no facility is selected, no departments are visible in the result list. This is the only exception to the rule “If either filter is empty or if [Unknown] has been selected for this filter, this filter does not apply”.

The pre-selection view for departments is very similar to the pre-selection view for facilities when it comes up to setting of practice, region and district (see section 3.1.1). If a facility has been selected in the pre-selection view for facilities in an earlier step, this facility is already set as pre-selection filter in the pre-selection view for departments.

The only difference in filters is that the pre-selection view for departments allows a facility to be selected. By selecting a facility and clicking the **Query** button, only departments from this facility will be displayed in the result list. Additionally, the selected facility will be displayed again in the main form header, and thus this facility will again be the currently selected facility when entering other information items.

Selecting a department is also a general purpose selection, just like selecting a facility is. To keep users informed about the currently selected facility, even if other masks are displayed, the name of this department is always displayed in the header of the main form. As each department is related to one facility, the facility is also set in the header.

Note

The global filtration and the default department mechanisms do not automatically apply for new custom tables and custom masks. Appropriate customization will be needed to activate these mechanisms for custom tables and custom masks. Please refer to RAIS 3.1 Web Administrators Guide – Part I and Part II for details.

3.2.2 Entering a new Department

- 1 Select the facility (see 3.1.1).
- 2 Expand the submenu **Facilities and Departments**.
- 3 Click the menu item **Departments**.

The pre-selection view for departments will be displayed.

- 4 Set pre-selection filters.
- 5 Click the **Add** button.

The mask for department information will be displayed, accepting data entry. A new tab will immediately be displayed in the main form header.

- 6 Enter the *regulatory authority number* for the new department. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 7 Select the *facility* the new department belongs to. This field is mandatory and must be filled in.

- 8 Enter the *name of the department*. This field is mandatory and must be filled in.
- 9 Select the *region* where the department is located. This field is optional only.
- 10 Select the *district* inside the region. This field is optional only.
- 11 Enter the name of the *legal person* of the department. This person is supposed to be the primary contact person for this department. This field is optional only.
- 12 Enter the *phone number* of the department. This field is optional only.
- 13 Enter the *fax number* of the department. This field is optional only.
- 14 Enter the *address* of the department. This field is optional only.
- 15 Enter the *current status* of the department. This field is mandatory and must be filled in.
- 16 Select the *practices* this facility is working in.
- 17 Click the ***Apply*** button to validate your data entry.

3.2.3 Modifying a Department

- 1 Select the department (see 3.2.1).
- 2 Click the ***View*** button.
- 3 Click the ***Edit*** button.
- 4 Modify the appropriate department data.

3.2.4 Deleting a Department

- 1 Select the department (see 3.2.1).
- 2 Click the ***Delete*** button.

Note

By deleting a department, all data related to this department will be deleted, including status information of sources, workers, authorizations, etc. if they are related to the department.

3.3 Radiation Generators

3.3.1 Pre-selecting Radiation Generators

- 1 Expand the submenu ***Sources and Associated Equipment***
- 2 Click on ***Radiation Generator***

The pre-selection view for radiation generators will be displayed.

Figure 10. Pre-selection view for radiation generators

The pre-selection view for radiation generators allows filtering by:

- practice
- radiation generator type
- manufacturer
- radiation generator model

By selecting a practice and clicking the **Query** button, only radiation generators used in this practice will be displayed in the result list. Additionally, only radiation generator types allowed to be used in the selected practice will be available for selection.

By selecting a radiation generator type and clicking the **Query** button, the result list will additionally be filtered for the radiation generator type. Additionally, only radiation generator models associated with the selected type will be available for selection.

By selecting a manufacturer and clicking the **Query** button, the result list will be filtered also for the manufacturer. Additionally, only radiation generator models associated with the selected manufacturer will be available for selection.

By selecting a radiation generator model and clicking the **Query** button, the result list will be filtered also for the radiation generator model.

Facility, department, type, manufacturer and model (if selected) will be used as defaults when adding new status entries for radiation generators. The practice, if selected, is not currently supported to act as default data.

3.3.2 Entering a new Radiation Generator

3.3.2.1 Entering Radiation Generator Information

- 1 Select the *facility/department*.
- 2 Expand the submenu **Sources and Associated Equipment**.
- 3 Click the menu item **Radiation Generator**.

The pre-selection view for radiation generators will be displayed.

- 4 Set pre-selection filters.
- 5 Click the **Add** button.

The mask for radiation generator information will be displayed, accepting data entry. Three new tabs will immediately be displayed in the main mask header. The **Radiation Generator Details** tab will be activated.

- 6 Enter the *regulatory authority number* for the new radiation generator. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 7 Enter the *manufacturer's serial number* of the new radiation generator. This field is optional only, however it is highly recommended to enter the serial number if available.
- 8 If *type*, *manufacturer* and *model* have not been selected at an earlier step, it is highly recommended to select them now, although these details are not mandatory as they may be unknown in some situations.
- 9 After all radiation generator information has been entered, click the **Apply** button.

The mask for *radiation generator status* information will be opened, accepting data entry. Please note that the tab button for **Radiation Generator Status** — below the mask header — has been activated.

3.3.2.2 Entering Radiation Generator Status Information

- 1 If no facility/department has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 2 Select the *source status*. This field is mandatory. RAIS 3.1 Web allows setting the status of a radiation generator to **[unknown]**, however it is highly recommended to verify this information as it will be used by many reports and statistical analyses.
- 3 Enter the *status date* of the radiation generator. This field is mandatory and must be filled in.
- 4 Enter any *comments*, if applicable, in the comment box
- 5 Click the **Apply** button to validate your data entry.

3.3.2.3 Entering Calibration Information

- 1 If the facility has not been selected at an earlier step, it has to be selected here. This field is mandatory and has to be filled in. A department may also be selected within the facility.
- 2 Enter the *calibration date* of the radiation generator. This field is mandatory and must be filled in.
- 3 Enter the *calibration certificate number*. This field is optional only, but it is strongly recommended to enter all available information.

3.3.3 Adding a new Radiation Generator Status

- 1 Select the *facility/department*.
- 2 Select the *radiation generator*.
- 3 Click the **View** button.
- 4 Click the **Radiation Generator status** tab.
- 5 Click the **Add** button.
- 6 Enter the new *radiation generator status data*.

3.3.4 Adding a new Calibration

- 1 Select the *facility/department*.
- 2 Select the *radiation generator*.
- 3 Click the **View** button.
- 4 Click the **Calibration** tab.
- 5 Click the **Add** button.
- 6 Enter the new *calibration data*.

3.3.5 Modifying a Radiation Generator

- 1 Select the *facility/department*.
- 2 Select the *radiation generator*.
- 3 Click the **View** button.
- 4 Click the **Edit** button.
- 5 Modify the appropriate *radiation generator data*.

3.3.6 Modifying a Radiation Generator Status

- 1 Select the *facility/department*.
- 2 Select the *radiation generator*.
- 3 Click the **View** button.
- 4 Click the **Radiation Generator status** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *radiation generator status data*.

3.3.7 Modifying a Calibration Status

- 1 Select the *facility/department*.
- 2 Select the *radiation generator*.
- 3 Click the **View** button.
- 4 Click the **Calibration status** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *calibration data*.

3.3.8 Deleting a Radiation Generator

- 1 Select the *facility/department*.
- 2 Select the *radiation generator*.
- 3 Click the **Delete** button.

Note

By deleting a radiation generator, all status and calibration data related to this radiation generator will be deleted.

3.3.9 Deleting a Radiation Generator Status

- 1 Select the *facility/department*.
- 2 Select the *radiation generator*.
- 3 Click the **View** button.
- 4 Click the **Radiation Generator status** tab.
- 5 Click the **Delete** button.

Note

Only the current radiation generator status may be deleted. In this case the prior status entry will again be the current. The last status entry is not allowed to be deleted.

By deleting a radiation generator status entry, neither the radiation generator nor any of the related calibration data will be deleted.

3.3.10 Deleting a Calibration Status

- 1 Select the *facility/department*.
- 2 Select the *radiation generator*.
- 3 Click the **View** button.
- 4 Click the **Calibration status** tab.
- 5 Click the **Delete** button.

Note

Only the current calibration status entry may be deleted. In this case, the prior calibration status entry will again be the current one. Even the last calibration status entry may be deleted.

By deleting a calibration status entry, neither the radiation generator nor any of the related generator status entries will be deleted.

3.4 Sealed Sources

3.4.1 Pre-selecting Sealed Sources

- 1 Expand the submenu **Sources and Associated Equipment**.
- 2 Click on **Sealed Sources**.

The pre-selection view for sealed sources will be displayed.

Figure 11. Pre-selection view for sealed sources

The pre-selection view for sealed sources allows for filtering by:

- manufacturer
- model

By selecting a manufacturer and clicking the **Query** button, the result list will be filtered for the manufacturer.

By selecting a source model and clicking the **Query** button, the result list will additionally be filtered for the source model.

Facility, department, manufacturer and model (if selected) will be used as defaults when adding new status entries for sealed sources.

3.4.2 Entering a new Sealed Source

3.4.2.1 Entering Sealed Source Information

- 1 Select the *facility/department*.
- 2 Expand the submenu **Sources and Associated Equipment**.
- 3 Click the menu item **Sealed Source**.

The pre-selection view for sealed sources will be displayed.

- 4 Set pre-selection filters.
- 5 Click the **Add** button.

The mask for sealed source information will be displayed, accepting data entry. Three new tabs will immediately be displayed in the main mask header. The **Sealed Source Details** tab will be activated.

- 6 Enter the *regulatory authority number* for the new sealed source. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 7 Enter the *manufacturer's serial number* of the new sealed source. This field is optional only; however, it is highly recommended to enter the serial number if available.

- 8 Enter the *activity* of the new sealed source. This field is optional only; however, it is highly recommended to enter the activity if available.
- 9 Enter the *activity date* of the new sealed source. This field is optional only; however it is highly recommended to enter the activity date if available.
- 10 Enter the *nuclide* used by the sealed source.
- 11 If no *manufacturer*, *model* and *type* have been selected at an earlier step, it is highly recommended to select them now, although these details are not mandatory as they may be unknown in some situations.
- 12 Enter the *category* of the sealed source.
- 13 Enter the *ISO-compliance* for the new sealed source.
- 14 Enter the *recommended working life* for the new sealed source.
- 15 After all sealed source information has been entered, click the **Apply** button.

The mask for sealed source status information will be opened, accepting data entry. Please note that the tab button for **Sealed Source Status** — below the mask header — has been activated.

3.4.2.2 Entering Sealed Source Status Information

- 16 If no *facility/department* has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 17 Select the *source status*. This field is mandatory. RAIS 3.1 Web allows for setting the status of a sealed source to **[unknown]**, however it is highly recommended to verify this information, as it will be used by many reports and statistical analyses.
- 18 Enter the *status date* of the sealed source. This field is mandatory and must be filled in.
- 19 Enter the *security group* for the new sealed source.
- 20 Enter the *facility audit date*.
- 21 Enter the *physical barrier* that protects the sealed source.
- 22 Enter any *comments*, if applicable, in the comment box.
- 23 Click the **Apply** button to validate your data entry.

3.4.2.3 Entering Sealed Sources Associated Equipment Status Information

- 24 Select the *associated equipment* from the drop-down menu. The associated equipment information must already have been entered (see 3.6).
- 25 Enter the *date*. This field is mandatory and must be filled in.

3.4.3 Adding a new Sealed Source Status

- 1 Select the *facility/department*.
- 2 Select the *sealed source*.
- 3 Click the **View** button.
- 4 Click the **Sealed Source status** tab.
- 5 Click the **Add** button.
- 6 Enter the new *sealed source status data*.

3.4.4 Adding a new Associated Equipment Status

- 1 Select the *facility/department*.
- 2 Select the *sealed source*.
- 3 Click the **View** button.
- 4 Click the **Associated Equipment** tab.
- 5 Click the **Add** button.
- 6 Enter the new *associated equipment status data*.

3.4.5 Modifying a Sealed Source

- 1 Select the *facility/department*.
- 2 Select the *sealed source*.
- 3 Click the **View** button.
- 4 Click the **Edit** button.
- 5 Modify the appropriate *sealed source data*.

3.4.6 Modifying a Sealed Source Status

- 1 Select the *facility/department*.
- 2 Select the *sealed source*.
- 3 Click the **View** button.
- 4 Click the **Sealed Source Status** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *sealed source status data*.

3.4.7 Modifying an Sealed Source Associated Equipment status

- 1 Select the *facility/department*.
- 2 Select the *sealed source*.
- 3 Click the **View** button.
- 4 Click the **Associated Equipment** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *associated equipment status data*.

3.4.8 Deleting a Sealed Source

- 1 Select the *facility/department*.
- 2 Select the *sealed source*.
- 3 Click the **Delete** button.

Note

By deleting a sealed source, all status and associated equipment data related to this sealed source will be deleted.

3.4.9 Deleting a Sealed Source Status

- 1 Select the *facility/department*.

- 2 Select the *sealed source*.
- 3 Click the **View** button.
- 4 Click the **Sealed Source status** tab.
- 5 Click the **Delete** button.

Note

Only the current sealed source status may be deleted. In this case, the prior status entry will again be the current. The last status entry is not allowed to be deleted.

By deleting a sealed source status entry, neither the sealed source nor any of the related associated equipment status will be deleted.

3.4.10 Deleting an Sealed Source Associated Equipment Status

- 1 Select the *facility/department*.
- 2 Select the *sealed source*.
- 3 Click the **View** button.
- 4 Click the **Associated Equipment Status** tab.
- 5 Click the **Delete** button.

Note

Only the current associated equipment status may be deleted. In this case the prior associated equipment status will again be the current. Even the last sealed source associated equipment status may be deleted.

By deleting an associated equipment status, neither the sealed source nor any of the related sealed source status will be deleted.

3.5 Unsealed Sources

3.5.1 Pre-selecting Unsealed Sources

- 1 Expand the submenu **Sources and Associated Equipment**.
- 2 Click on **Unsealed Sources**.

The pre-selection view for unsealed sources will be displayed.

The screenshot shows a web application window titled "Select Unsealed Source". At the top, there is a dropdown menu labeled "Manufacturer". Below this menu is a large, empty rectangular area, likely intended for displaying a list of sources. At the bottom of the window, there are four buttons: "View", "Add", "Delete", and "Query".

Figure 12. Pre-selection view for unsealed sources

The pre-selection view for unsealed sources allows filtering by manufacturer. By selecting a manufacturer and clicking the **Query** button, the result list will additionally be filtered for the manufacturer.

The facility, department and manufacturer (if selected) will be used as default value when adding new status entries for unsealed sources.

3.5.2 Entering a new Unsealed Source

3.5.2.1 Entering Unsealed Source Information

- 1 Select the *facility/department*.
- 2 Expand the submenu **Sources and Associated Equipment**.
- 3 Click the menu item **Unsealed Source**.

The pre-selection view for unsealed sources will be displayed.

- 4 Set pre-selection filters.
- 5 Click the **Add** button.

The mask for unsealed source information will be displayed, accepting data entry. Three new tabs will immediately be displayed in the main mask header. The **Unsealed Source Details** tab will be activated.

- 6 Enter the *regulatory authority number* for the new unsealed source. This number is usually defined by the national regulatory authority. This field is mandatory.
- 7 Enter the *nuclide(s)* used by the unsealed source.
- 8 Enter the *maximum activity* of the new unsealed source.
- 9 Enter the *activity period* of the new unsealed source.
- 10 If no *manufacturer* has been selected at an earlier step, it is highly recommended to select it now, although these details are not mandatory as they may be unknown in some situations.
- 11 Enter the *physical form* of the new unsealed source.
- 12 After all unsealed source information has been entered, click the **Apply** button.

The mask for unsealed source status information will be opened, accepting data entry. Please note that the tab button for **Unsealed Source Status** — below the mask header — has been activated.

3.5.2.2 Entering Unsealed Source Status Information

- 13 If no *facility/department* has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 14 Select the *source status*. This field is mandatory. RAIS 3.1 Web allows setting the status of an unsealed source to **[unknown]**; however, it is highly recommended to verify this information as it will be used by many reports and statistical analyses.

- 15 Enter the *status date* of the unsealed source. This field is mandatory and must be filled in.
- 16 Enter the *physical barrier(s)* protecting the unsealed source.
- 17 Enter any *comments*, if applicable, in the comment box.
- 18 Click the **Apply** button to validate your data entry.

3.5.2.3 Entering Unsealed Source Associated Equipment Status Information

- 19 Select the *associated equipment* from the drop-down menu. The associated equipment information must already have been entered.
- 20 Enter the *date*. This field is mandatory and must be filled in.

3.5.3 Adding a new Unsealed Source Status

- 1 Select the *facility/department*.
- 2 Select the *unsealed source*.
- 3 Click the **View** button.
- 4 Click the **Unsealed Source status** tab.
- 5 Click the **Add** button.
- 6 Enter the new *unsealed source status data*.

3.5.4 Adding a new Associated Equipment Status

- 1 Select the *facility/department*.
- 2 Select the *unsealed source*.
- 3 Click the **View** button.
- 4 Click the **Associated Equipment status** tab.
- 5 Click the **Add** button.
- 6 Enter the new *associated equipment status data*.

3.5.5 Modifying an Unsealed Source

- 1 Select the *facility/department*.
- 2 Select the *unsealed source*.
- 3 Click the **View** button.
- 4 Click the **Edit** button.
- 5 Modify the appropriate *unsealed source data*.

3.5.6 Modifying an Unsealed Source Status

- 1 Select the *facility/department*.
- 2 Select the *unsealed source*.
- 3 Click the **View** button.
- 4 Click the **Unsealed Source Status** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *unsealed source status data*.

3.5.7 Modifying an Unsealed Source Associated Equipment Status

- 1 Select the *facility/department*.
- 2 Select the *unsealed source*.
- 3 Click the **View** button.
- 4 Click the **Associated Equipment Status** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *associated equipment status data*.

3.5.8 Deleting an Unsealed Source

- 1 Select the *facility/department*.
- 2 Select the *unsealed source*.
- 3 Click the **Delete** button.

Note

By deleting an unsealed source, all status and associated equipment data related to this unsealed source will be deleted.

3.5.9 Deleting an Unsealed Source Status

- 1 Select the *facility/department*.
- 2 Select the *unsealed source*.
- 3 Click the **View** button.
- 4 Click the **Unsealed Source Status** tab.
- 5 Click the **Delete** button.

Note

Only the current unsealed source status may be deleted. In this case, the prior status entry will again be the current. The last status entry is not allowed to be deleted.

By deleting an unsealed source status entry, neither the unsealed source nor any of the related associated equipment status will be deleted.

3.5.10 Deleting an Unsealed Source Associated Equipment Status

- 1 Select the *facility/department*.
- 2 Select the *unsealed source*.
- 3 Click the **View** button.
- 4 Click the **Associated Equipment Status** tab.
- 5 Click the **Delete** button.

Note

Only the current associated equipment status may be deleted. In this case, the prior associated equipment status will again be the current one. Even the last associated equipment status may be deleted.

By deleting an associated equipment status, neither the unsealed source nor any of the related unsealed source status will be deleted.

3.6 Associated Equipment

3.6.1 Pre-selecting Associated Equipment

- 1 Expand the submenu *Sources and Associated Equipment*.
- 2 Click on *Associated Equipment*.

The pre-selection view for associated equipment will be displayed.

Figure 13. Pre-selection view for associated equipment

The pre-selection view for associated equipment allows for filtering by:

- practice
- equipment type
- manufacturer
- equipment model

By selecting a practice and clicking the **Query** button, only associated equipment used in this practice will be displayed in the result list. Additionally, only equipment types allowed to be used in the selected practice will be available for selection.

By selecting an equipment type and clicking the **Query** button, the result list will additionally be filtered for the equipment type. Additionally, only equipment models associated with the selected equipment type will be available for selection.

By selecting a manufacturer and clicking the **Query** button, the result list will additionally be filtered for the manufacturer. Additionally, only equipment models associated with the selected equipment type will be available for selection.

By selecting an equipment model, the result list will be filtered also for the equipment model.

Facility, department, type, manufacturer and model (if selected) will be used as defaults when adding new status entries for associated equipment. The practice, if selected, is currently not supported to act as default data.

3.6.2 Entering new Associated Equipment

3.6.2.1 Entering Associated Equipment Information

- 1 Select the *facility/department*.
- 2 Expand the submenu ***Sources and Associated Equipment***.
- 3 Click the menu item ***Associated Equipment***.

The pre-selection view for associated equipment will be displayed.

- 4 Set pre-selection filters.
- 5 Click the ***Add*** button.

The mask for associated equipment information will be displayed, accepting data entry. Two new tabs will immediately be displayed in the main mask header. The ***Associated Equipment Details*** tab will be activated.

- 6 Enter the *regulatory authority number* for the new associated equipment. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 7 Enter the *manufacturer's serial number* of the new associated equipment. This field is optional only: however, it is highly recommended to enter the serial number if available.
- 8 If no *type, manufacturer and model* have been selected at an earlier step, it is highly recommended to select them now although these details are not mandatory as they may be unknown in some situations.
- 9 After all associated equipment information has been entered, click the ***Apply*** button.

The mask for associated equipment status information will be opened, accepting data entry. Please note that the tab button for ***Associated Equipment Status*** — below the mask header — has been activated.

3.6.2.2 Entering Associated Equipment Status Information

- 10 If no *facility/department* has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 11 Select the *associated equipment status*. This field is mandatory. RAIS 3.1 Web allows for setting the status of an associated equipment item to ***[unknown]***; however, it is highly recommended to verify this information as it will be used by many reports and statistical analyses.
- 12 Enter the *status date* of the associated equipment. This field is mandatory and must be filled in.
- 13 Enter any *comments*, if applicable, in the comment box.
- 14 Click the ***Apply*** button to validate your data entry.

3.6.2.3 Adding a new Associated Equipment Status

- 1 Select the *facility/department*.
- 2 Select the *associated equipment*.
- 3 Click the ***View*** button.

- 4 Click the ***Associated Equipment Status*** tab.
- 5 Click the ***Add*** Button.
- 6 Enter the new *associated equipment status data*.

3.6.3 Modifying Associated Equipment

- 1 Select the *facility/department*.
- 2 Select the *associated equipment*.
- 3 Click the ***View*** button.
- 4 Click the ***Edit*** button.
- 5 Modify the appropriate *associated equipment data*.

3.6.4 Modifying an Associated Equipment Status

- 1 Select the *facility/department*.
- 2 Select the *associated equipment*.
- 3 Click the ***View*** button.
- 4 Click the ***Associated Equipment Status*** tab.
- 5 Click the ***Edit*** button.
- 6 Modify the appropriate *associated equipment status data*.

3.6.5 Deleting Associated Equipment

- 1 Select the *facility/department*.
- 2 Select the *associated equipment*.
- 3 Click the ***Delete*** button.

Note

By deleting an associated equipment item, all status data related to this associated equipment will be deleted.

3.6.6 Deleting an Associated Equipment Status

- 1 Select the *facility/department*.
- 2 Select the *associated equipment*.
- 3 Click the ***View*** button.
- 4 Click the ***Associated Equipment Status*** tab.
- 5 Click the ***Delete*** button.

Note

Only the current associated equipment status may be deleted. In this case the prior status entry will again be current. The last status entry is not allowed to be deleted.

3.7 Authorizations

3.7.1 Pre-selecting Authorizations

- 1 Expand the submenu **Authorizations**.
- 2 Click on the appropriate *authorization type* menu item.
- 3 Click the **Query** button.

The pre-selection view for authorizations will be displayed. This view does not have any specific pre-selection filters. Only a result list, filtered by pre-selected facility and department, is displayed. Facility and department (if selected) will be used as defaults when adding new status entries for authorizations.

3.7.2 Entering a new Authorization

3.7.2.1 Entering Authorization Information

- 1 Select the *facility/department*.
- 2 Expand the submenu **Authorizations**.
- 3 Select the appropriate authorization item.

The pre-selection view for authorizations will be displayed.

- 4 Click the **Add** button.

The mask for authorization information will be displayed, accepting data entry. Two new tabs will immediately be displayed in the main mask header. The **Authorization Details** tab will be activated.

- 5 Enter the *regulatory authority number* for the new authorization. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 6 If no *facility/department* has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 7 Enter the authorization *starting date*.
- 8 Enter the authorization *expiry date*.
- 9 Enter the *workers* involved in the authorization process.
- 10 Enter the *sources* involved in the authorization process.
- 11 After all authorization information has been entered, click the **Next** button.

The mask for authorization status information will be opened, accepting data entry. Please note that the tab button for **Authorization Status** — below the mask header — has been activated.

3.7.2.2 Entering Authorization Status Information

- 12 Enter the *status date* of the authorization. This field is mandatory and must be filled in.
- 13 Enter the *authorization number*. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 14 Select the *authorization status*. This field is mandatory. RAIS 3.1 Web allows for setting the status of an authorization to **[unknown]**, however it is highly recommended to verify this information, as it will be used by many reports and statistical analyses.

- 15 Enter the involved *authorization officer*.
- 16 Enter any *comments*, if applicable, in the comment box.
- 17 Click the **Apply** button to validate your data entry.

3.7.2.3 Entering Authorization Type Specific Details

Depending on the type of authorization and the national authority system, specific details may be entered for each authorization type. Please note that these details only apply to the authorization itself, not its status. If no authorization type specific details have been defined by the national authority in RAIS 3.1 Web, the tab for authorization type specific details is not visible. Hence no data entry is required and the remainder of this section may be skipped.

On the other hand, if details have been specified by the national regulatory authority, the appropriate tab is visible and data entry is possible. Most authorization types (transfer, operation...) require only one set of detail information. Both import and export authorizations are special cases. In most situations, Sources involved in the import respectively export process are imported/exported at different time steps. To allow for tracing each of these steps, multiple authorization type specific details are required.

3.7.3 Adding a new Authorization Status

- 1 Select the *facility/department*.
- 2 Select the *authorization*.
- 3 Click the **Authorization Status** tab.
- 4 Click the **Add** button.
- 5 Enter the new *authorization status data*.

3.7.4 Adding Authorization Type specific Details

Depending on the type of authorization and the national authority system, specific details may be entered for each authorization type. Please note that these details only apply to the authorization itself, not its status. If no authorization type specific details have been defined by the national authority in RAIS 3.1 Web, the tab for authorization type specific details is not visible. Hence no data entry is required and the remainder of this section may be skipped.

On the other hand, if details have been specified by the national regulatory authority, the appropriate tab is visible and data entry is possible. Most authorization types (transfer, operation...) require only one set of detail information. Both import and export authorizations are special cases. In most situations, Sources involved in the import respectively export process are imported/exported at different time steps. To allow for tracing each of these steps, multiple authorization type specific details are required.

3.7.5 Modifying an Authorization

- 1 Select the *facility/department*.
- 2 Select the *authorization*.
- 3 Click the **View** button.
- 4 Click the **Edit** button.
- 5 Modify the appropriate *authorization data*.

3.7.6 Modifying an Authorization Status

- 1 Select the *facility/department*.
- 2 Select the *authorization*.
- 3 Click the **View** button.
- 4 Click the **Authorization Status** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *authorization status data*.

3.7.7 Modifying Authorization Type Specific Details

- 1 Select the *facility/department*.
- 2 Select the *authorization*.
- 3 Click the **View** button.
- 4 Click the **Authorization Type Specific Details** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *authorization type specific details*.

3.7.8 Deleting an Authorization

- 1 Select the *facility/department*.
- 2 Select the *authorization*.
- 3 Click the **Delete** button.

Note

By deleting an authorization, all status data and authorization specific details related to this authorization will be deleted.

3.7.9 Deleting an Authorization Status

- 1 Select the *facility/department*.
- 2 Select the *authorization*.
- 3 Click the **View** button.
- 4 Click the **Authorization Status** tab.
- 5 Click the **Delete** button.

Note

Only the current authorization status may be deleted. In this case the prior status entry will again be the current one. The last status entry is not allowed to be deleted.

By deleting an authorization status entry, neither the authorization nor any of the related authorization type specific details will be deleted.

3.8 Inspections

3.8.1 Pre-selecting Inspections

- 1 Expand the submenu **Inspections**.

- 2 Click the menu item ***Inspections***
- 3 Click the ***Query*** button

The pre-selection view for inspections will be displayed. This view does not have any specific pre-selection filters. Only a result list, filtered by facility and department, is displayed. Facility and department (if selected) will be used as defaults when adding new inspections.

3.8.2 Entering a new Inspection

3.8.2.1 Entering Inspection Information

- 1 Select the *facility/department*.
- 2 Click the menu item ***Inspection***.

The pre-selection view for inspections will be displayed.

- 3 Click the ***Add*** button.

The mask for inspection information will be displayed, accepting data entry. Two new tabs will immediately be displayed in the main form header. The ***Inspection Details*** tab will be activated.

- 4 Enter the *regulatory authority number* for the new inspection. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 5 If no *facility/department* has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 6 Enter the *non-compliance information* for the inspection.
- 7 Define whether the inspection is a *regular* inspection or not.
- 8 Define whether the inspection is a *full* inspection or not.
- 9 Define whether the inspection is an *announced* inspection or not.
- 10 Select the *source(s)* for inspection. Only the sources available in the selected facility will be shown.
- 11 After all inspection information has been entered, click the ***Apply*** button.

The mask for inspection status information will be opened, accepting data entry. Please note that the tab button for ***Inspection Status*** — below the mask header — has been activated.

3.8.2.2 Entering Inspection Status Information

- 12 Enter the *status date* of the inspection. This field is mandatory and must be filled in.
- 13 Select the *inspection status*. This field is mandatory.
- 14 Enter the involved *inspection officer(s)*.
- 15 Enter any *comments*, if applicable, in the comment box.
- 16 Click the ***Apply*** button to validate your data entry.

3.8.3 Adding a new Inspection Status

- 1 Select the *facility/department*.
- 2 Select the *inspection*.
- 3 Click the **View** button.
- 4 Click the **Inspection Status** tab.
- 5 Click the **Add** Button.
- 6 Enter the new *inspection status data*.

3.8.4 Modifying an Inspection

- 1 Select the *facility/department*.
- 2 Select the *inspection*.
- 3 Click the **View** button.
- 4 Click the **Edit** button.
- 5 Modify the appropriate *inspection data*.

3.8.5 Modifying an Inspection status

- 1 Select the *facility/department*.
- 2 Select the *inspection*.
- 3 Click the **View** button.
- 4 Click the **Inspection Status** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *inspection status data*.

3.8.6 Deleting an Inspection

- 1 Select the *facility/department*.
- 2 Select the *inspection*.
- 3 Click the **Delete** button.

Note

By deleting an inspection, all status data related to this inspection will be deleted.

3.8.7 Deleting an Inspection Status

- 1 Select the *facility/department*.
- 2 Select the *inspection*.
- 3 Click the **View** button.
- 4 Click the **Inspection Status** tab.
- 5 Click the **Delete** button.

Note

Only the current inspection status may be deleted. In this case, the prior status entry will again be the current. The last status entry is not allowed to be deleted.

3.9 Enforcements and Responses

3.9.1 Pre-selecting Enforcements

- 1 Expand the submenu ***Enforcement***.
- 2 Click the menu item ***Enforcement***.
- 3 Click the ***Query*** button

The pre-selection view for enforcements will be displayed. This view does not have any specific pre-selection filters. Only a result list, filtered by facility and department, is displayed. Facility and department (if selected) will be used as defaults when adding a new enforcement.

3.9.2 Entering a new Enforcement

- 1 Select the *facility/department*.
- 2 Click the menu item ***Enforcement***.

The pre-selection view for enforcements will be displayed.

- 3 Click the ***Add*** button.

The mask for enforcement information will be displayed, accepting data entry. Two new tabs will immediately be displayed in the main form header. The ***Enforcement*** tab will be activated.

- 4 Enter the *enforcement action number* for the new enforcement. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 5 Select the *authority requesting* the enforcement.
- 6 Select the *action type*.
- 7 If no *facility/department* has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 8 Enter the *date* of the enforcement. This field is mandatory and must be filled in.
- 9 Enter the *due date* for the enforcement.
- 10 Enter the involved *enforcement officer(s)*.
- 11 Enter the *non-compliance information* for the enforcement.
- 12 Select the *inspection* that caused the enforcement action. Only the inspections done in the selected facility/department will be shown.
- 13 After all enforcement information has been entered, click the ***Apply*** button.

3.9.3 Adding a new Response

- 1 Select the *facility/department*.
- 2 Click the menu item ***Enforcement***.

The mask for enforcement information will be displayed. Please note that no data entry is allowed at this point.

- 3 Select the *enforcement*.
- 4 Click the ***Response*** tab.

The form for the response to the enforcement action will be opened, accepting data entry.

- 5 Enter the *date* of the enforcement response. This field is mandatory and must be filled in. Please note that all dates in RAIS 3.0 comply with your local Windows settings.
- 6 Enter the *response type*.
- 7 Enter the *follow-up inspection(s)*.
- 8 Click the ***Apply*** button to validate your data entry.

3.9.4 Modifying an Enforcement

- 1 Select the *facility/department*.
- 2 Select the *enforcement*.
- 3 Click the ***View*** button.
- 4 Click the ***Edit*** button.
- 5 Modify the appropriate *enforcement data*.

3.9.5 Modifying an Enforcement Response

- 1 Select the *facility/department*.
- 2 Select the *enforcement*.
- 3 Click the ***View*** button.
- 4 Click the ***Response*** tab.
- 5 Click the ***Edit*** tab.
- 6 Modify the appropriate *enforcement response data*.

3.9.6 Deleting an Enforcement

- 1 Select the *facility/department*.
- 2 Select the *enforcement*.
- 3 Click the ***Delete*** button.

Note

By deleting enforcement, all responses related to this enforcement will be deleted.

3.9.7 Deleting an Enforcement Response

- 1 Select the *facility/department*.
- 2 Select the *enforcement*.
- 3 Click the ***View*** button.
- 4 Click the ***Response*** tab.
- 5 Click the ***Delete*** button.

3.10 Radiation Events

3.10.1 Pre-selecting Radiation Events

- 1 Expand the submenu ***Radiation Events***.
- 2 Click the menu item ***Radiation Events***.
- 3 Click the ***Query*** button

The pre-selection view for Radiation Events will be displayed. This view does not have any pre-selection filters. Only a result list is shown, filtered by facility and department, is displayed. Facility and department (if selected) will be used as defaults when adding a new radiation event.

Note

The user type Licensee can only view radiation events related to his own facility or those radiation events that have the field [involved facility] blank and have been entered by the licensee himself.

3.10.2 Entering a new Radiation Event

3.10.2.1 Entering Radiation Event Information

- 1 Expand the submenu ***Radiation Events***.
- 2 Click the menu item ***Radiation Events***.

The pre-selection view for radiation events will be displayed.

- 3 Click the ***Add*** button.

The mask for radiation event details will be displayed, accepting data entry. Eight new tabs will immediately be displayed in the main mask header. The ***Radiation Events Details*** tab will be activated.

- 4 Enter the *radiation event number* for the new radiation event. This field is mandatory and must be filled in.
- 5 Enter the *date* of the event
- 6 Enter the *location* of the event
- 7 Select the *involved facility*, if no *facility* has been set as default value (see 3.1.1)
- 8 Select the *extent* of the event
- 9 Select the *emergency response level* of the event
- 10 Enter details regarding the event into the *narrative* field.
- 11 After all information has been entered, click the ***Apply*** button.

3.10.2.2 Entering Event Analysis Information

Select the Event Analysis tab, once selected the tab will become highlighted and the mask will load.

- 1 Click the **Add** button
- 2 Select all the *causes* that apply to this event
- 3 Select all the *consequences* that apply to this event
- 4 Enter the *lessons learnt* from this event
- 5 Enter the *corrective actions* performed
- 6 Click the **Apply** button.

3.10.2.3 Entering Sources Involved Information

Select the Event Analysis tab, once selected the tab will become highlighted and the mask will load.

- 1 Click the **Add** button
- 2 Select the *associated equipments* that apply to this event
- 3 Select the *radiation generators* that apply to this event
- 4 Select the *sealed sources* that apply to this event
- 5 Select the *unsealed sources* that apply to this event
- 6 Click the **Apply** button.

3.10.2.4 Entering Workers Involved Information

Select the Workers Involved tab, once selected the tab will become highlighted and the mask will load.

- 1 Click the **Add** button
- 2 Select the *regulatory authority number* of the worker involved
- 3 Select the *deterministic effects* that apply to this worker
- 4 Select the *health consequences* that apply to this worker
- 5 Click the **Apply** button.

3.10.2.5 Entering Patients Involved Information

Select the Patients Involved tab, once selected the tab will become highlighted and the mask will load.

- 1 Click the **Add** button
- 2 Enter the *regulatory authority number* for the patient involved
- 3 Enter the *number of patients*
- 4 Enter the *name* of the patient (If the number of involved patients is one)
- 5 Enter the *national ID* of the patient (If the number of involved patients is one)
- 6 Select the *medical exposure type*
- 7 Enter the *dose deviation*
- 8 Select the *deterministic effects*
- 9 Select the *health consequences*
- 10 Click the **Apply** button.

3.10.2.6 Entering Public Involved Information

Select the Public Involved tab, once selected the tab will become highlighted and the mask will load.

- 1 Click the **Add** button
- 2 Enter the *regulatory authority number* for the member of the Public involved
- 3 Enter the *number of persons*
- 4 Enter the *name* of the person (If the number of persons is one)
- 5 Enter the *national ID* of the person (If the number of persons is one)
- 6 Select the *deterministic effects*
- 7 Select the *health consequences*
- 8 Click the **Apply** button.

3.10.2.7 Entering Doses Information

Select the Doses tab, once selected the tab will become highlighted and the mask will load.

- 1 Click the **Add** button
- 2 Select the *individual or group, this is a combined list of all workers, patients or public that was involved.*
- 3 Select the *dose type*
- 4 Enter the *dose*
- 5 Select the *dose unit*
- 6 Click the **Apply** button.

3.10.2.8 Entering Reporting Information

Select the Reporting tab, once selected the tab will become highlighted and the mask will load.

- 1 Click the **Add** button
- 2 Enter the *report ran*, this field will be automatically populated.
- 3 Select the *reporting facility or organization.*
- 4 Select the *organization reported to.*
- 5 Select the *report status*
- 6 Enter the *report date*
- 7 Enter details regarding the *IAEA support received*
- 8 Enter the *support date*
- 9 Click the **Apply** button.

3.10.3 Modifying Radiation Event Information

- 1 Select the *Radiation Event.*
- 2 Click the **View** button.
- 3 Click the **Edit** button.
- 4 Modify the appropriate Radiation Event Information
- 5 Click the **Apply** button.

3.10.4 Modifying Event Analysis Information

- 1 Select the *Radiation Event*.
- 2 Click the **View** button.
- 3 Click the *Event Analysis* tab
- 4 Click the **Edit** button.
- 5 Modify the appropriate Event Analysis Information.
- 6 Click the **Apply** button.

3.10.5 Modifying Sources Involved Information

- 1 Select the *Radiation Event*.
- 2 Click the **View** button.
- 3 Click the *Sources Involved* tab
- 4 Click the **Edit** button.
- 5 Modify the appropriate Sources Involved Information.
- 6 Click the **Apply** button.

3.10.6 Modifying Workers Involved Information

- 1 Select the *Radiation Event*.
- 2 Click the **View** button.
- 3 Click the *Workers Involved* tab
- 4 Click the **Edit** button.
- 5 Modify the appropriate Workers Involved Information.
- 6 Click the **Apply** button.

3.10.7 Modifying Patients Involved Information

- 1 Select the *Radiation Event*.
- 2 Click the **View** button.
- 3 Click the *Patients Involved* tab
- 4 Click the **Edit** button.
- 5 Modify the appropriate Patients Involved Information.
- 6 Click the **Apply** button.

3.10.8 Modifying Public Involved Information

- 1 Select the *Radiation Event*.
- 2 Click the **View** button.
- 3 Click the *Public Involved* tab
- 4 Click the **Edit** button.
- 5 Modify the appropriate Public Involved Information.
- 6 Click the **Apply** button.

3.10.9 Modifying Doses Information

- 1 Select the *Radiation Event*.

- 2 Click the ***View*** button.
- 3 Click the *Doses* tab
- 4 Click the ***Edit*** button.
- 5 Modify the appropriate Doses Information.
- 6 Click the ***Apply*** button.

3.10.10 Modifying Reporting Information

- 1 Select the *Radiation Event*.
- 2 Click the ***View*** button.
- 3 Click the *Reporting* tab
- 4 Click the ***Edit*** button.
- 5 Modify the appropriate Reporting Information.
- 6 Click the ***Apply*** button.

3.10.11 Deleting Radiation Event Information

- 1 Select the *Radiation Event*.
- 2 Click the ***View*** button.
- 3 Click the ***delete*** button.

3.10.12 Deleting Event Analysis Information

- 1 Select the *Radiation Event*.
- 2 Click the ***View*** button.
- 3 Click the *Event Analysis* tab
- 4 Click the ***delete*** button.

3.10.13 Deleting Sources Involved Information

- 1 Select the *Radiation Event*.
- 2 Click the ***View*** button.
- 3 Click the *Sources Involved* tab
- 4 Click the ***Delete*** button.

3.10.14 Deleting Workers Involved Information

- 1 Select the *Radiation Event*.
- 2 Click the ***View*** button.
- 3 Click the *Workers Involved* tab
- 4 Select the involved worker to delete
- 5 Click the ***Delete*** button.

3.10.15 Deleting Patients Involved Information

- 1 Select the *Radiation Event*.
- 2 Click the ***View*** button.
- 3 Click the *Patients Involved* tab

- 4 Select the patient involved to delete
- 5 Click the **Delete** button.

3.10.16 Deleting Public Involved Information

- 1 Select the *Radiation Event*.
- 2 Click the **View** button.
- 3 Click the *Public Involved* tab
- 4 Select the public involved to be deleted
- 5 Click the **Delete** button.

3.10.17 Deleting Doses Information

- 1 Select the *Radiation Event*.
- 2 Click the **View** button.
- 3 Click the *Doses* tab
- 4 Select the dose information to be deleted
- 5 Click the **Delete** button.

3.10.18 Deleting Reporting Information

- 1 Select the *Radiation Event*.
- 2 Click the **View** button.
- 3 Click the *Reporting* tab
- 4 Click the **Delete** button.

3.11 Workers

3.11.1 Pre-selecting workers

- 1 Expand the submenu **Workers and Tasks**
- 2 Click on **Workers**
- 3 Click the **Query** button

The pre-selection view for workers will be displayed. This view does not have any specific pre-selection filters. Only a result list, filtered by facility and department, is displayed. Facility and department (if selected) will be used as defaults when adding new status entries for workers.

3.11.2 Entering a new Worker

3.11.2.1 Entering Worker Information

- 1 Select the *facility/department*.
- 2 Expand the submenu **Workers and Tasks**.
- 3 Click the menu item **Worker**.

The pre-selection view for workers will be displayed.

- 4 Click the **Add** button.

The mask for worker information will be displayed, accepting data entry. Six new tabs will immediately be displayed in the main form header. The **Worker** tab will be activated.

- 5 Enter the *regulatory authority number* for the new worker. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 6 Enter the worker's *name*. This field is mandatory and must be filled in.
- 7 Enter the *birth date* of the worker.
- 8 Select the *sex* of the worker. This field is mandatory.
- 9 After all information has been entered, click the **Apply** button.

The mask for worker status information will be opened, accepting data entry. Please note that the tab button for **Worker Status** — below the form header — has been activated.

3.11.2.2 Entering Worker Status Information

- 1 If no *facility/department* has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 2 Enter the *status date*. This field is mandatory and must be filled in
- 3 Select the *worker status*. This field is mandatory. RAIS 3.1 Web allows for setting the status of a worker to **[unknown]**; however, it is highly recommended to verify this information, as it will be used by many reports and statistical analyses.
- 4 Select the *monitoring status*. This field is mandatory. RAIS 3.1 Web allows for setting the monitoring status to **[unknown]**; however, it is highly recommended to verify this information, as it will be used by many reports and statistical analyses.
- 5 Select the *worker's task*.
- 6 Enter the *worker's experience*.
- 7 Define if the worker is *trustworthy*.
- 8 Click the **Apply** button to validate your data entry.

3.11.2.3 Entering Annual Doses

- 1 Click the **Annual Doses** tab.
- 2 Click the **Add** button.
- 3 Enter the *year* of the dose. This field is mandatory and must be filled in.
- 4 Enter the *amount and unit* of the dose. This field is mandatory.
- 5 Click the **Apply** button to validate your data entry.

3.11.2.4 Entering Attended Courses

- 1 Click the **Attended Courses** tab.
- 2 Click the **Add** button.
- 3 Enter the *date* of the attended course. This field is mandatory and must be filled in. Select the *attended course*. This field is mandatory.
- 4 Click the **Apply** button to validate your data entry.

3.11.2.5 Entering a Professional Qualification

- 1 Click the **Professional Qualification** tab.
- 2 Click the **Add** button.
- 3 Select the *professional qualification*. This field is mandatory and must be filled in.
- 4 Click the **Apply** button to validate your data entry.

3.11.2.6 Entering an academic qualification

- 1 Click the **Academic Qualification** tab.
- 2 Click the **Add** button.
- 3 Select the *field*. This field is mandatory and must be filled in.
- 4 Select the *branch*.
- 5 Select the *degree*.
- 6 Click the **Apply** button to validate your data entry.

3.11.3 Adding a new Worker Status

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Worker Status** tab.
- 5 Click the **Add** button.
- 6 Enter the new *worker status data*.

3.11.4 Adding a new Annual Dose

- 3 Select the *facility/department*.
- 4 Select the *worker*.
- 5 Click the **View** button.
- 6 Click the **Annual Dose** tab.
- 7 Click the **Add** button.
- 8 Enter the new *annual dose data*.

3.11.5 Adding a new Attended Course

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Attended Course** tab.
- 5 Click the **Add** button.
- 6 Enter the new *attended course data*.

3.11.6 Adding a new Professional Qualification

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Professional Qualification** tab.

- 5 Click the **Add** button.
- 6 Enter the new *professional qualification data*.

3.11.7 Adding a new academic qualification

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Academic Qualification** tab.
- 5 Click the **Add** button.
- 6 Enter the new *academic qualification data*.

3.11.8 Modifying Worker Information

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Edit** button.
- 5 Modify the appropriate *worker data*.

3.11.9 Modifying Worker Status

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Worker Status** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *worker status data*.

3.11.10 Modifying Annual Doses

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Annual Doses** tab.
- 5 Select the *year*.
- 6 Click the **Edit** button.
- 7 Modify the *appropriate data*.

3.11.11 Modifying Attended Courses

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Attended Courses** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *attended course data*.

3.11.12 Modifying a Professional Qualification

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Professional Qualification** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *professional qualification data*.

3.11.13 Modifying an Academic Qualification

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Academic Qualification** tab.
- 5 Click the **Edit** button.
- 6 Modify the appropriate *academic qualification data*.

3.11.14 Deleting a worker

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **Delete** button.

Note

By deleting a worker, all data related to this worker will be deleted.

3.11.15 Deleting a Worker Status

- 1 Select the *facility/department*.
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Worker Status** tab.
- 5 Click the **Delete** button.

Note

Only the current worker status may be deleted. In this case the prior status entry will again be current. The last status entry is not allowed to be deleted.

By deleting a worker status entry, neither the worker nor any of the related data will be deleted.

3.11.16 Deleting an Annual Dose

- 1 Select the *facility/department*
- 2 Select the *worker*.
- 3 Click the **View** button.
- 4 Click the **Annual Dose** tab.

- 5 Select the *year*.
- 6 Click the **Delete** button.

3.11.17 Deleting an Attended Course

- 1 Select the *facility/department*.
- 2 Select the worker.
- 3 Click the **View** button.
- 4 Click the **Attended Courses** tab.
- 5 Click the **Delete** button.

3.11.18 Deleting a Professional Qualification

- 1 Select the *facility/department*.
- 2 Select the worker.
- 3 Click the **View** button.
- 4 Click the **Professional Qualification** tab.
- 5 Click the **Delete** button.

3.11.19 Deleting an Academic Qualification

- 1 Select the *facility/department*.
- 2 Select the worker.
- 3 Click the **View** button.
- 4 Click the **Academic Qualification** tab.
- 5 Click the **Delete** button.

3.12 Worker Tasks

3.12.1 Pre-selecting Worker Tasks

- 1 Expand the submenu **Workers and Tasks**.
- 2 Click the menu item **Worker Tasks**.

The list mask for worker tasks will be displayed. This view does not have any specific pre-selection filters at all; only a result list is displayed.

3.12.2 Entering a new Worker Task

- 1 Expand the submenu **Workers and Tasks**.
- 2 Click the menu item **Worker Tasks**.

The mask for worker task information will be displayed. Please note that no data entry is allowed at this point.

- 3 Click the **Add** button.

The mask for worker task information will now accept data entry.

- 4 Enter the *name* for the new worker task. This field is mandatory and must be filled in.
- 5 Select the *practice(s)*. This field is optional only, although it is highly recommended to provide as much information as possible.
- 6 Click the ***Apply*** button.

3.12.3 Modifying Worker Task Information

- 1 Select the *worker task*.
- 2 Click the ***View*** button.
- 3 Click the ***Edit*** button.
- 4 Modify the appropriate *worker task data*.
- 5 Click the ***Apply*** button.

3.12.4 Deleting a Worker Task

- 1 Select the *worker task*.
- 2 Click the ***Delete*** button.

3.13 Service Providers

3.13.1 Pre-selecting Service Providers

- 1 Expand the submenu ***Technical Services***.
- 2 Click the menu item ***Service Provider***.

The pre-selection view for service providers will be displayed.

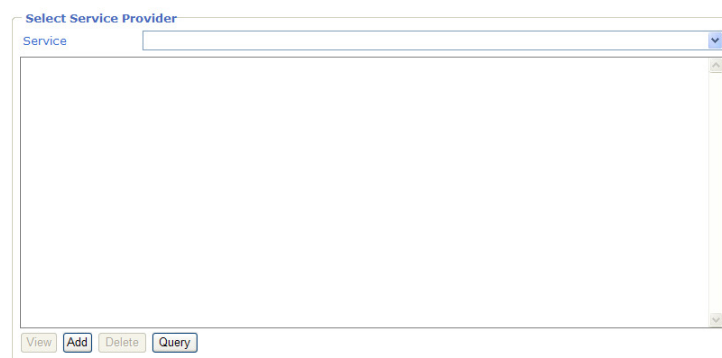


Figure 14. Pre-selection view for service providers

The pre-selection view for service providers allows for filtering by service. By selecting a service and clicking the ***Query*** button, only providers allowed to provide for the selected service will be displayed in the result list.

The service, if selected, is currently not supported to act as default data.

Note

As the service provider in fact is a facility working in some service providing practices, the general purpose pre-selection filters facility and department do not apply to the pre-selection view for service providers.

3.13.2 Entering a new Service Provider

A service provider in fact is a facility which is operating in a service practice. Entering a new service provider hence corresponds to entering a new facility and, additionally, selecting at least one service practice.

- 1 Expand the submenu **Technical Services**.
- 2 Click the menu item **Service Provider**.

The pre-selection view for service providers will be displayed.

- 1 Click the **Add** button.

The mask for service provider information will be displayed, accepting data entry. One new tab will immediately be displayed in the main form header. The **Service Provider** tab will be activated.

Details about how to create a new facility may be found in section 3.1.2.

3.13.3 Modifying a Service Provider

- 1 Expand the submenu **Technical Services**
- 2 Select the *service provider*.
- 3 Click the **View** button.
- 4 Click the **Edit** button.
- 5 Modify the appropriate *service provider data*.

3.13.4 Deleting a Service Provider

- 1 Expand the submenu **Technical Services**
- 2 Select the service provider.
- 3 Click the **Delete** button.

Note

As a service provider in fact is a facility, all data related to this service provider will be deleted. This includes authorizations, inspections and enforcements. With regard to sources and workers, only status information related to the service provider will be deleted; neither source nor worker will be deleted. However, if a source or worker has only one item of status information, deletion of this status will render the source or worker invisible

3.14 Accreditations

3.14.1 Pre-selecting Accreditations

- 1 Expand the submenu **Technical Services**.
- 2 Click on **Accreditations**.

The pre-selection view for accreditations will be displayed.

Figure 15. Pre-selection view for accreditations

The pre-selection view for accreditations allows for filtering by:

- service
- service provider.

By selecting a service and clicking the **Query** button, only accreditations with regard to this service will be displayed in the result list. Additionally, only service providers allowed to provide for the selected service will be available for selection.

By selecting a provider and clicking the **Query** button, the result list will be filtered also on provider.

The service provider, if selected, will act as default data when entering new accreditations.

Note

As the service provider is, in fact, a facility working in some service providing practice; the general purpose for pre-selection filters by facility and department does not apply here.

3.14.2 Entering a new Accreditation

- 1 Expand the submenu **Technical Services**.
- 2 Click on **Accreditations**.

The pre-selection view for accreditations will be displayed.

- 3 Set pre-selection filters.
- 4 Click the **Add** button.

The mask for accreditation information will be displayed, accepting data entry. One new tab will immediately be displayed in the main form header. The ***Accreditation*** tab will be activated.

- 5 Enter the *accreditation number* for the new accreditation. This number is usually defined by the national regulatory authority. This field is mandatory and must be filled in.
- 6 If no *facility/department* has been set as default value (see 3.1.1 and 13.2.1), they should both be selected right now. The field for facilities is mandatory, whereas the field for departments is optional.
- 7 Enter the *date* of the accreditation. This field is mandatory and must be filled in.
- 8 Optionally, enter the *expiry date* of the new accreditation.

3.14.3 Modifying an Accreditation

- 1 Expand the submenu ***Technical Services***.
- 2 Select the *accreditation*.
- 3 Click the ***View*** button.
- 4 Click the ***Edit*** button.
- 5 Modify the appropriate *service provider data* (see 3.14.2).

3.14.4 Deleting an Accreditation

- 1 Expand the submenu ***Technical Services***.
- 2 Select the *accreditation*.
- 3 Click the ***Delete*** button.

3.15 Training Courses

3.15.1 Pre-selecting Training Courses

- 1 Expand the submenu ***Technical Services***
- 2 Click on ***Training Courses***
- 3 Click the ***Query*** button

The list mask for training courses will be displayed. This view does not have any specific pre-selection filters at all; only a result list is displayed.

3.15.2 Entering a new Training Course

- 1 Expand the submenu ***Technical Services***.
- 2 Click the menu item ***Training Course***.
- 3 Click the ***Add*** button.

The mask for training course information will now accept data entry.

- 4 Enter the *name* for the new training course. This field is mandatory and must be filled in.
- 5 Define the *duration* of the training course. This field is optional only, although it is highly recommended to provide as much information as possible.
- 6 Select the *training facility*. This field is optional only, although it is highly recommended to provide as much information as possible.
- 7 Click the ***Apply*** button.

3.15.3 Modifying Worker Training Course

- 1 Select the *training course*.
- 2 Click the ***View*** button.
- 3 Click the ***Edit*** button.
- 4 Modify the appropriate *training course data*.
- 5 Click the ***Apply*** button.

3.15.4 Deleting a Training Course

- 1 Select the *training course*.
- 2 Click the ***Delete*** button.

3.16 Radiation Generator Models

3.16.1 Pre-selecting Radiation Generator Models

- 1 Expand the submenu ***Manufacturers and Models***.
- 2 Click on ***Radiation Generator Models***.

The pre-selection view for radiation generator models will be displayed.

Figure 16. Pre-selection view for radiation generator models

The pre-selection view for radiation generator models allows for filtering by:

- radiation generator type
- manufacturer.

By selecting a type and clicking the **Query** button, only radiation generator models with regard to this type will be displayed in the result list.

By selecting a manufacturer and clicking the **Query** button, the result list will be filtered also on manufacturer.

Type and manufacturer, if selected, will act as default data when entering new radiation generator models.

3.16.2 Entering a new Radiation Generator Model

- 1 Expand the submenu **Manufacturers and Models**.
- 2 Click the menu item **Radiation Generator Model**.

The pre-selection view for radiation generator model information will be displayed.

- 3 Set pre-selection filters.
- 4 Click the **Add** button.

The mask for radiation generator model information will be displayed, accepting data entry. The **Radiation Generator Model Details** tab will be activated.

- 5 Enter the *model name* for the new radiation generator. This information is provided by the manufacturer. This field is mandatory and must be filled in.
- 6 Enter the *operating voltage* of the new radiation generator. This field is optional only, although it is highly recommended to provide as much information as possible.
- 7 Enter the *operating amperage* of the new radiation generator. This field is optional only, although it is highly recommended to provide as much information as possible.
- 8 Enter the *wave form* of the new radiation generator. This field is optional only, although it is highly recommended to provide as much information as possible.
- 9 If *type, manufacturer and model* have not been selected at an earlier step, it is highly recommended to select them now as they are mandatory.
- 10 Click the **Apply** button.

3.16.3 Modifying a Radiation Generator Model

- 1 Select the *radiation generator model*.
- 2 Click the **View** button.
- 3 Click the **Edit** button.
- 4 Modify the appropriate *radiation generator model data*.
- 5 Click the **Apply** button.

3.16.4 Deleting a Radiation Generator Model

- 1 Select the *radiation generator model*.
- 2 Click the **Delete** button.

3.17 Sealed Source Models

3.17.1 Pre-selecting Sealed Source Models

- 1 Expand the submenu ***Manufacturers and Models.***
- 2 Click on ***Sealed Source Models.***

The pre-selection view for sealed source models will be displayed.

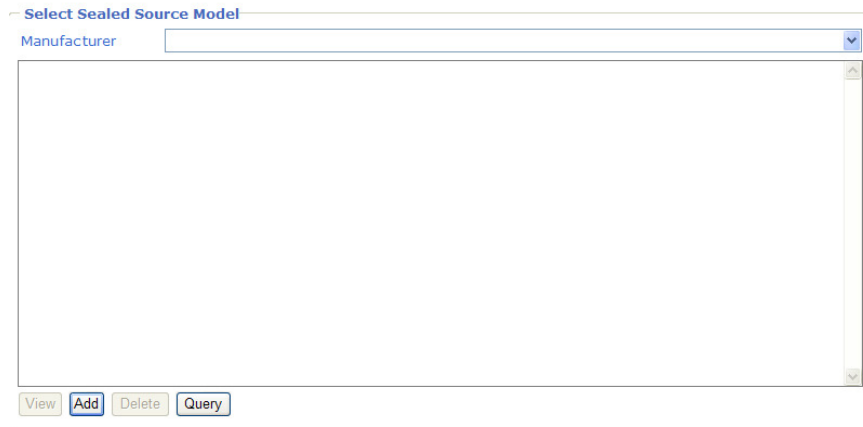


Figure 17. Pre-selection view for sealed source models

The pre-selection view for sealed source models allows for filtering by:

- manufacturer.

By selecting a manufacturer and clicking the ***Query*** button, only sealed source models with regard to this manufacturer will be displayed in the result list.

The manufacturer, if selected, will act as default data when entering new sealed source models.

3.17.2 Entering a new Sealed Source Model

3.17.2.1 Entering Sealed Source Model Information

- 1 Expand the submenu ***Manufacturers and Models.***
- 2 Click the menu item ***Sealed Source Model.***

The pre-selection view for sealed source model information will be displayed.

- 3 Set pre-selection filters.
- 4 Click the ***Add*** button.

The mask for sealed source information will be displayed, accepting data entry. The ***Sealed Source Model Details*** tab will be activated.

- 5 Enter the *model name* for the new sealed source. This information is provided by the manufacturer. This field is mandatory and must be filled in.

- 6 Enter the *manufacturer's name*. This field is mandatory.
- 7 After all sealed source model detail information has been entered, click the **Apply** button.

3.17.3 Modifying a Sealed Source Model

- 1 Select the *sealed source model*.
- 2 Click the **View** button.
- 3 Click the **Edit** button.
- 4 Modify the appropriate *sealed source model data*.
- 5 Click the **Apply** button.

3.17.4 Deleting a Sealed Source Model

- 1 Select the *sealed source model*.
- 2 Click the **Delete** button.

3.18 Associated Equipment Models

3.18.1 Pre-selecting Associated Equipment Models

- 1 Expand the submenu **Manufacturers and Models**.
- 2 Click on **Associated Equipment Models**.

The pre-selection view for associated equipment will be displayed.

Asso Model Name	Type Name	Name
02-0009-ML-1	Level gauge	BRUN SENSOR SYSTEMS, Inc.
02-0009-ML-1-4	Level gauge	BRUN SENSOR SYSTEMS, Inc.
02-0036-ML-1	Level gauge	BRUN SENSOR SYSTEMS, Inc.
02-0036-ML-1-5	Level gauge	BRUN SENSOR SYSTEMS, Inc.
08500100	Density meter	ZIKONIX Corp.
08500300	Density meter	ZIKONIX Corp.
1	Thickness gauge	CONRAC Corp.
10	Calibration Device	J.L. SHEPHERD & ASSOCIATES
10 X PIPELINER CAMERA	Portable industrial gamma projector	GULF NUCLEAR, Inc.
100	Calibration Device	ISOMEDIX, Inc.

Figure 18. Pre-selection view for associated equipment models

The pre-selection view for associated equipment models allows for filtering by:

- associated equipment type
- manufacturer

By selecting a type and clicking the **Query** button, only associated equipment models with regard to this type will be displayed in the result list.

By selecting a manufacture and clicking the **Query** button r, the result list will be filtered also for the manufacturer.

Type and manufacturer, if selected, will act as default data when entering new associated equipment models.

3.18.2 Entering a new Associated Equipment Model

- 1 Expand the submenu **Manufacturers and Models**.
- 2 Click the menu item **Associated Equipment Model**.

The pre-selection view for associated equipment model information will be displayed.

- 3 Set pre-selection filters.
- 4 Click the **Add** button.

The mask for associated equipment model information will be displayed, accepting data entry. The **Associated Equipment Model Details** tab will be activated.

- 5 Enter the *associated equipment model name* for the new Associated Equipment. This information is provided by the manufacturer. This field is mandatory and must be filled in.
- 6 Enter the *manufacturer's name*. This field is mandatory.
- 7 If *manufacturer and type* have not been selected at an earlier step, it is highly recommended to select them now as they are mandatory.
- 8 After all associated equipment model details information has been entered, click the **Apply** button.

3.18.3 Modifying an Associated Equipment Model

- 1 Set the pre-selection filters.
- 2 Select the *associated equipment model*.
- 3 Click the **View** button.
- 4 Click the **Edit** button.
- 5 Modify the appropriate *associated equipment model data*.
- 6 Click the **Apply** button.

3.18.4 Deleting an Associated Equipment Model

- 1 Set the pre-selection filters.
- 2 Select the *associated equipment model*.
- 3 Click the **Delete** button.

3.19 Manufacturers

3.19.1 Pre-selecting Manufacturers

- 1 Expand the submenu ***Manufacturers and Models***
- 2 Click on ***Manufacturers***
- 3 Click the ***Query*** button

The list mask for manufacturers will be displayed. This view does not have any specific pre-selection filters at all; only a result list is displayed when the Query button is clicked.

3.19.2 Entering a new Manufacturer

- 1 Expand the submenu ***Manufacturers and Models***.
- 2 Click the menu item ***Manufacturer***.

The mask for manufacturer information will be displayed. Please note that no data entry is allowed at this point.

- 3 Click the ***Add*** button.

The mask for manufacturer information will now accept data entry.

- 4 Enter the *name* for the new manufacturer. This field is mandatory and must be filled in.
- 5 Enter the *address* of the manufacturer. This field is optional only, although it is highly recommended to provide as much information as possible.
- 6 Enter the *phone number* of the manufacturer. This field is optional only, although it is highly recommended to provide as much information as possible.
- 7 Enter the *fax number* of the manufacturer. This field is optional only, although it is highly recommended to provide as much information as possible.
- 8 Enter the *email address* of the manufacturer. This field is optional only, although it is highly recommended to provide as much information as possible.
- 9 Enter the *contact person* of the manufacturer. This field is optional only, although it is highly recommended to provide as much information as possible.
- 10 Enter the *country* of the manufacturer. This field is optional only, although it is highly recommended to provide as much information as possible.
- 11 Click the ***Apply*** button.

3.19.3 Modifying Manufacturer Information

- 1 Select the *manufacturer*.
- 2 Click the ***View*** button.
- 3 Click the ***Edit*** button.
- 4 Modify the appropriate *manufacturer data*.
- 5 Click the ***Apply*** button.

3.19.4 Deleting a Manufacturer

- 1 Select the *manufacturer*.
- 2 Click the ***Delete*** button.

3.20 ICSRS Connection

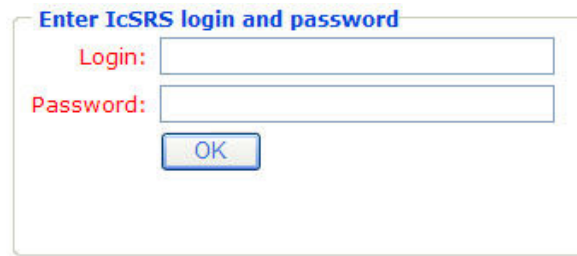
RAIS 3.1 Web provides a connection, over the internet, to the *International Catalogue of Sealed Radioactive Sources* (ICSRS), which is a web-accessible database maintained by the IAEA, ***provided that the user has a valid account on ICSRS.***

The connection to ICSRS enables searching for and importing data on:

- Manufacturer
- Models of sealed sources
- Models of associated equipment

- 1 Expand the submenu ***Manufacturers and Models.***
- 2 Click the menu item ***Connect to ICSRS.***

The following mask will be displayed.



The image shows a login mask titled "Enter IcSRS login and password". It contains two input fields: "Login:" and "Password:". Below the "Password:" field is an "OK" button.

Figure 19. ICSRS login

- 3 Enter a valid username and password for accessing ICSRS
- 4 Click the OK button.

After a successful login into ICSRS, the search mask appears indicating the login name:



The image shows a search mask titled "Data Import from IcSRS (login: rais_user)". It contains two input fields: "Text:" with the value "Test Source" and "Type:" with a dropdown menu showing "Source". Below these fields are two buttons: "Search" and "Logout".

Figure 20. The ICSRS search mask

- 5 Enter the text you would like to search the ICSRS for.
- 6 Select the Type of records you are looking for.
- 7 Click the ***Search*** button
- 8 Select the record you would like to import
- 9 Click the ***Import*** button
- 10 When finished, click ***Logout***

If there are any results matching the search criteria, they will be presented to you, from here you can select which records you would like to import into RAIS 3.1 Web.

4 The Query menu

When executing queries or statistics, no information part is modified, deleted or even added. Also, the current version of RAIS 3.1 Web does not record the user's name when executing queries or statistics. Although no modification to any data is possible, users are required to be granted access to RAIS 3.1 Web.

RAIS 3.1 Web includes a set of queries for many tasks relevant to the regulatory authority. This set may be extended by the national regulatory authority.

Query Group	Query	Parameters
Facility status	current sources ^(a) of a facility	practice, region, district, facility, department
	valid authorizations for a facility	practice, region, district, facility, department
	non-compliances of last inspection	practice, region, district, facility, department
	open enforcement actions against a facility	practice, region, district, facility, department
	facilities involved in radiation events in a period	start date, end date
	workers in the facility	practice, region, district, facility, department
Inventory	active facilities by practice	practice category, practice
	sealed sources in a category	category
	sealed sources in a security group	security group
	Sources ^(a) authorized to be, but not yet imported	N/A
	sources ^(a) authorized to be, but not yet exported	N/A
	sources ^(a) authorized to be, but not yet transferred to the recipient	N/A
Authorizations	authorizations issued	practice, authorization type, start date, end date
	authorizations expiring	practice, authorization type, start date, end date
	authorizations pending	practice, authorization type, start date, end date
	authorized facilities in a practice	practice
	non-authorized facilities in a practice	practice
	authorization process overview	authorization number
Inspections	non-compliances in an inspection	inspection number
	enforcement actions related to an inspection	inspection number
	inspections carried out	practice, start date, end date
	inspections pending	practice, start date, end date
	inspections overview	inspection number
Enforcements	Open enforcement actions	N/A
	Closed enforcements	N/A
	Enforcement actions by an authority	authority
	Inspections related to an enforcement action	enforcement action number

Query Group	Query	Parameters
Workers	dose distribution in a practice	Practice
	doses received by a worker	person name
	doses exceeding dose limits	N/A
	training occasions of a worker	person name
Radiation Events	Radiation events report	See section 4.2
	radiation events of a given type	incident type, start date, end date
	Sources ^(b) involved in an radiation events	incident number
	workers involved in an radiation events	incident number
	radiation events involving persons	start date, end date
History	calibration history of a radiation generator	generator number
	history of a radiation generator	Radiation generator
	history of a sealed source	sealed source
	history of unsealed source	unsealed source
	history of an associated equipment	associated equipment
	history of a worker	person name
	history of equipment associated to a sealed source	Sealed source
	history of equipment associated to an unsealed source	Unsealed source
	history of sealed sources associated to an equipment	Associated equipment
	history of unsealed sources associated to an equipment	Associated equipment

^(a) Different queries are provided for radiation generators, sealed sources, unsealed sources and associated equipment

^(b) Different queries are provided for radiation generators, sealed sources and unsealed sources

4.1 Executing Queries

Three steps have to be performed to execute a query:

- 1 Selecting the query.
- 2 Setting the query parameters.
- 3 Setting the query display/printing parameters.

4.1.1 Selecting Queries

Selecting a query is achieved by clicking the appropriate menu item in the tree-view section of the main form.

To select a query:

- 1 Expand the corresponding submenu.
- 2 Click the appropriate menu item.

4.1.2 Setting the query parameters

Queries usually require setting a well-defined set of query parameters. These parameters may be set either by:

- Selecting from drop-down boxes.
- Entering starting and ending dates in date fields.

Query parameters for different queries are listed in the previous section.

4.1.2.1 Drop-down boxes

Drop-down boxes allow for selecting a single value out of a set of values. Drop-down boxes may allow for selecting a facility, a radiation generator, an inspection etc. Drop-down boxes are often mandatory but sometimes optional only.

4.1.2.2 Date fields

Date fields are simple text fields accepting only valid dates. As date fields are usually used to specify a period, both a start date and an end date are required. The start date defaults to 01/12/1895⁴, whereas the end date defaults to the current date. Date fields always are mandatory.

4.1.3 Setting the query display/printing parameters

RAIS 3.1 Web allows for two types of displays of query results:

- Previewing results on screen with the option of printing.
- Export to Excel.

Queries are executed only by clicking the Preview button. Prior to executing the query, the orientation of the display portrait or landscape may be selected.

When exporting to excel simply click the **Export to Excel** button, only the raw data will be exported and not the graphics. This data can then be used in external data analysis applications.

4.2 Special Case: Radiation events report

Three steps have to be performed to execute this Special Case: Radiation Event query:

- 1 Selecting the query.
- 2 Setting the query parameters.
- 3 Setting the query display/printing parameters.

4.2.1 Selecting the Query

Selecting the query is achieved by clicking the appropriate menu item in the tree-view section of the main mask.

⁴ Date of X-ray discovery by Wilhelm Conrad Röntgen.

To select the query:

- 1 Expand the Radiation Events submenu.
- 2 Click the Radiation Events menu item.

4.2.2 Setting the query parameters

Queries usually require setting a well-defined set of query parameters. These parameters may be set either by:

- Selecting from drop-down boxes.
- Entering starting and ending dates in date fields.

The query parameters for this Query are the “report criteria”, which are summarized in the following table. Depending on the selection made, other options will become available.

Report Criteria	Parameter
Date Range	Starting from, until
Event ID	Event ID, to Event ID
All Records	-
Facility	Facility
Specific Practice	Specific Practice
Contact Organization	Contact Organization

4.2.2.1 Drop-down boxes

Drop-down boxes allow for selecting a single value out of a set of values. Drop-down boxes may allow for selecting a facility, a radiation generator, an inspection etc. Drop-down boxes are often mandatory but sometimes optional only.

4.2.2.2 Date fields

Date fields are simple text fields accepting only valid dates. As date fields are usually used to specify a period, both a start date and an end date are required. The start date defaults to 01/12/1895, whereas the end date defaults to the current date. Date fields always are mandatory.

4.2.3 Setting the query display/printing parameters

RAIS 3.1 Web allows for two types of displays of query results:

- Previewing results on screen with the option of printing.
- Export to Excel.

Queries are executed only by clicking the Preview button. Prior to executing the query, the Report Type may be selected. The following Report Type options are available:

- One Line Report
- Summary Report
- Complete Report

Report Type	Information Shown
One Line Report	Event ID, Date, Practice, Contact Organization, Report Status
Summary Report	Event ID, Date, Practice, Contact Organization, Report Status, Narrative, Facility Name, Extent of Event, Response Level, Description of Dose to Personnel, Corrective Action, Lessons Learned
Complete Report	Event ID, Date, Practice, Contact Organization, Report Status, Narrative, Facility Name, Extent of Event, Response Level, Description of Dose to Personnel, Sources involved, Radiological Consequences, Cause of Event, Corrective Action, Lessons Learned

When exporting to excel simply click the **Export to Excel** button, only the raw data will be exported and not the graphics. This data can then be used in external data analysis applications.

5 The Statistics menu

Steps to be performed to execute statistics are very similar to those for queries and, hence, will not be detailed again. Please refer to section (see 4.2.1) for details about selecting statistics and setting statistic parameters and result parameters.

As for queries, RAIS 3.1 Web includes a set of commonly used statistics. This list may again have been extended by the national regulatory authority.

Statistics Group	Statistics	Parameters
Practice Profile	practice profile ⁵	practice category, practice
Inventory	number of generators by type	N/A
	number of associated equipment by type	N/A
	number of facilities using associated equipment by type	N/A
	number of facilities using generators by type	N/A
	Number of sealed sources by category	N/A
	Number of sealed sources by nuclide	N/A
	Number of sealed sources by security group	N/A
Authorizations	number of authorizations issued in a period by type	authorization type, start date, end date
Inspections	number of inspections by practice	start date, end date
	number of inspections by inspector	start date, end date
	frequency of non-compliances	start date, end date
	number of non-compliances by practice	start date, end date
Enforcements	number of enforcement actions by practice	start date, end date
Radiation Events	number of radiation events by practice	start date, end date
	number of radiation events by incident type	start date, end date
	number of workers involved in radiation events	start date, end date

⁵ Practice Profile includes following information of a practice: no. of facility, no. of authorized facility, no. of radiation sources, no. of associated equipment, no. of occupationally exposed workers and the no. of monitored workers.

6 Tools

6.1 Search Tool

The **Search Tool** allows searching for facilities, departments, radiation generators, sealed sources, associated equipment and workers. Search can be either by its RAN, name or serial number as applicable.

The use of the search tools is demonstrated below for workers. Analogue steps are to be followed when searching for other items.

To search for a person called **Max**:

- 1 Successively select the menu *Tools*, the submenu *Tools*, and finally the menu item *Search Tool*.

The search tool mask will be displayed.

Figure 21. Search tool

- 2 Select **Worker** in the field **Search for**.
- 3 Select **Name** in the field **Search by**.
- 4 Enter the search string “max” in the field **Including Text**. Search may be done using a substring of the name. The search string can’t be left blank.
- 5 Click the **Search** button.

The results of the search are displayed in the result window. Single clicking a data record in the results list will direct the user to the details mask of the selected item, the worker in this example.

6.2 Sealed Source Activity Calculations

This tool allows calculating the radioactivity of a sealed source at any date, provided that:

- The sealed source has exactly one nuclide. RAIS 3.1 Web includes a list of half-lives for the majority of known radio-nuclides.
- The radioactivity of the sealed source at some date is known

To calculate the remaining activity of sealed source:

- 1 Successively select the menu *Tools*, the submenu *Tools*, and finally the menu item *Calculations*.

The calculation tool mask will be displayed.

Sealed Source Activity Calculate	
Sealed Source	SSO-001-001
Nuclide	Co-60, having a halflife of 5,27 Year(s)
Maximum Activity at	01.02.2009 7,73E+008 Ci
Calculated Activity at	18.03.2009 7,60E+008 Ci

Figure 22. Calculation tool mask

- 2 Select the **Sealed Source**. The source is to be selected by its RAN.

RAIS 3.1 Web will display the available information about the sealed source and its radionuclide(s).

If the above mentioned conditions are not met, RAIS 3.1 Web will display a message indicating why it is not possible to proceed with radioactivity calculations.

If the above mentioned conditions are met, a field to enter a date for radioactivity calculation will be displayed.

- 3 Enter the date in **Current Activity at**.

The radioactivity at the selected date will be calculated and displayed.

6.3 The Radiation Events Search Tool

The **Radiation Events Search Tool** allows searching for information on radiation events. This information may be searched for in many different ways.

To search for a radiation event that included a certain nuclide:

- 1 Successively select the menu *Tools*, the submenu *Tools*, and finally the menu item *Radiation Events Search Tool*.

The radiation events search tool mask will be displayed.

Figure 23. Radiation events search tool

To specify search criteria:

- 2 Check the boxes of the search criteria, which you would like to include in the search. The related parameter fields, if any, will be enabled.
- 3 Set the search parameters as applicable.

To clear the search criteria individually, uncheck the related box

To clear all search criteria, click the ***Clear Selections*** button.

If you wish to save the current search for future use:

- 4 Check the box “*Save search criteria as*”
- 5 Enter a name for the search to be saved.
- 6 Specify the logical operation **among the search criteria** “AND” or “OR”.
- 7 Click the ***Search*** button.

Instead of setting a new search as described above, you may run a saved search:

- 1 Check the box “*Select Saved Query*”
- 2 Select the saved query that you wish to re-use.
- 3 Click the ***Search*** button

6.4 Additional Tools

The tools menu provides also for three special commands: Show protectors, show evaluators and Show system fields. These three commands are relevant only for administrators and are described in section 3 of *RAIS 3.1 Web Administrator's Guide – part II*

7 Message Box

The message box is a new feature implemented in RAIS 3.1 Web in relation to the enhanced user management, particularly with the validation of entered data by the user. It is also used when a new user account is requested.

As described in chapter 7 of *RAIS 3.1 Web Administrator's Guide – Part I*, users are assigned, through their functional role, to a data validation level. There are three validation levels:

- **Level I: “Data changes need validation”:** Whenever a record is added, modified or deleted by a user assigned to this level, this modification will only be committed in the database after being accepted (i.e. “validated”) by a user assigned to data validation level III.
- **Level II: “Validation not required”:** Data added, modified or deleted by users assigned to this level will be directly made in the database without further validation.
- **Level III: “Validating data changes”:** This data validation level implies level II and, additionally, empowers the user to accept/reject (i.e. validate) data modifications made by users assigned to level I.

Recall...

RAIS 3.1 Web sets, by default, the functional roles of the user types “Licensee”, “Administrator” and “Regulator” to the data validation levels I, II and III respectively.

Although the message box is accessible by all users, it is only relevant to users assigned to level I or III, by providing a means for communications. No messages will be displayed for users assigned to data validation level II.

Note

The message box of RAIS 3.1 Web Administrator is a special case. It is used for validating online applications of new users accounts. See section 7.5 of RAIS 3.1 Administrator's Guide – Part I.

For users assigned to level I, e.g. Licensee, the message box is “personal”, i.e. For example, each licensee will only see messages related to his actions.

For users assigned to level III, the message box is “global”, i.e. all users having level III will see the same messages in the Message box.

7.1 The validation process

The validation process is initiated in the following cases:

- Adding a new data record by a user assigned to data validation level I
- Editing an existing data record by a user assigned to data validation level I
- Deleting an existing data record by a user assigned to data validation level I

In the above mentioned cases, clicking the ***Apply*** button by a user assigned to data validation level I, hereafter called “requesting user”, will not physically commit the data change in the database. Instead, a *validation request* will be generated and sent to the message box of level III users.

A level III user, hereafter called “validating user”, will see upon accessing his message box the request. He needs to act by clicking “***Validate data***”.

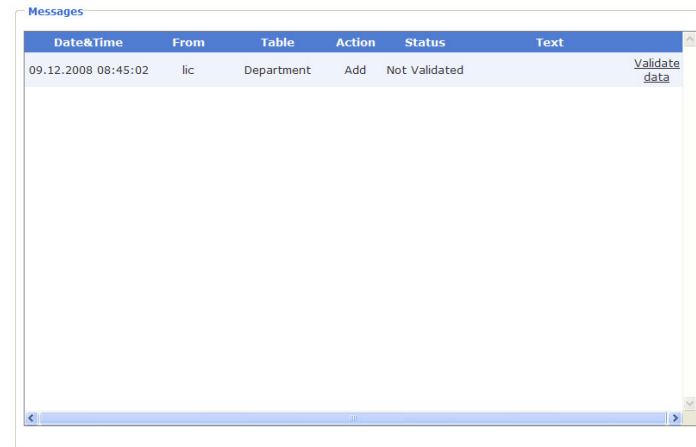


Figure 24. The message box of users assigned to data validation level III

The validating user will be redirected to a validation screen. This could be either:

- Identical to the details mask related to the to be added or deleted data record
- A comparison screen displaying the existing record at the left hand side and the modification made by the requesting user on the right hand side.
- The new user mask in case of request of a new user account

The screenshot shows a validation screen titled "Submission information - Edit row". It is divided into two columns: "Current Values" and "New Values". Each column contains a form with various fields for data entry and selection. At the bottom, there are three buttons: "Release", "Reject", and "Cancel".

Current Values	New Values
Regulatory Authority Number: SSO-001-001	Regulatory Authority Number: SSO-001-001
Serial No: 840211	Serial No: 840211
Activity: 7.73E+008 Ci	Activity: 5.55E+004 Ci
Activity Date: 01.02.2009 00:00:00 (dd.MM.yyyy HH:mm)	Activity Date: 01.02.2009 00:00:00 (dd.MM.yyyy HH:mm)
Nuclide: Co-60	Nuclide: Co-60
Manufacturer: [dropdown]	Manufacturer: [dropdown]
Model: [dropdown]	Model: 1005-2
Category: Category 1	Category: Category 1
Security Group: Security Group A	Security Group: Security Group A
ISO Compliance: Yes	ISO Compliance: Yes
Recommended Working Life: [dropdown]	Recommended Working Life: [dropdown]

Buttons: Release, Reject, Cancel

Figure 25. The validation mask in case of data editing

Note

Recall that when adding an item with history (such as a source, a worker, an authorization or an inspection), two related data records will be actually added: a details record and a status record (See chapter 3). In this case, RAIS 3.1 Web displays the two data records simultaneously for the convenience of the validating user. Both records will be accepted by clicking the **Release** button.

Important Note

Users assigned to validation level I or III should be aware of the correct sequence of submission or validation. For example, a licensee submitting information on a worker, need to submit the worker details and worker status first. Only after validation, submission of related records such as worker qualification or doses will be possible.

Figure 26. The validation mask in case of adding a sealed source

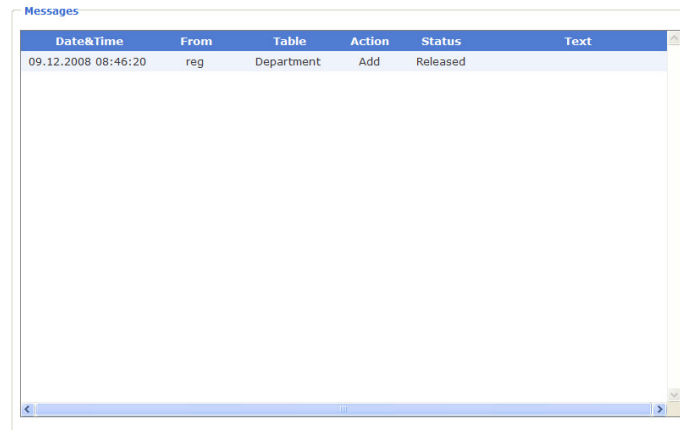
The validating user needs to examine the requested modification and either click **Release** to accept or **Reject** to reject it.

Upon accepting: The data modifications will be committed in the database, the request will be removed from the message box and a confirmation message will be sent to the message box of the requesting user.

Upon rejecting: No data modification will be made in the database. The request will be removed from the message box and a message about the denial of data modification will be sent to the message box of the requesting user. The validating user may include in the message the reason for the rejection.

Note

After submitting a validation request, the requesting user should check the message box to see if their validation request was validated or rejected.



The screenshot shows a web application window titled "Messages". It contains a table with the following data:

Date&Time	From	Table	Action	Status	Text
09.12.2008 08:46:20	reg	Department	Add	Released	

The table has a blue header and a white body. The "Text" column is empty. The window has a scroll bar on the right and a status bar at the bottom.

Figure 27. The message box of users assigned to data validation level I

8 Annex A Consistency Checks

Item	Consistency check
Districts	There should be no duplicates in district names in any region
Departments	Department practice(s) should be within facility practice(s)
Associated Equipment	The type of associated equipment should be applicable within department practice(s)
	The type of associated equipment should be applicable within facility practice(s)
	The associated equipment should not be in use if the facility/department is not operational
	New status dates should be greater than the already existing status dates
	Existing status records should not be modified; changes should be entered as new status records
Radiation Generators	Radiation generators should be applicable within the facility/department practice(s)
	The type of radiation generator should be applicable within department practice(s)
	The type of radiation generator should be applicable within facility practice(s)
	The radiation generator should not be in use if the facility/department is not operational
	New status dates should be greater than the already existing status dates
	Existing status records should not be modified; changes should be entered as new status records
	New calibration date should be greater than the already existing calibration dates
	Existing calibration records should not be modified
Sealed Sources	Security group should be consistent with the category of the sealed source
	The date of radioactivity should not be a future date
	Radioactivity should be a positive value
	Sealed sources should be applicable within the facility/department practice(s)
	Nuclide and/or activity of the sealed source probably not used in the facility/department practices
	The sealed source should not be in use if the facility/department is not operational
	New status dates should be greater than the already existing status dates
	Existing status records should not be modified; changes should be entered as new status records

Item	Consistency check
Unsealed Sources	Radioactivity should be a positive value
	Radioactivity time period should be a positive value
	Unsealed sources should be applicable within the facility/department practice(s)
	The unsealed source should not be in use if the facility/department is not operational
	New status dates should be greater than the already existing status dates
	Existing status records should not be modified; changes should be entered as new status records
Authorization	New authorization status dates should be greater than the already existing status dates
	Existing status records should not be modified; changes should be entered as new status records
	<i>export</i> Export action date should be within the export authorization validity period
	Exported sources should be specified in export actions
	<i>import</i> Import action date should be within the import authorization validity period
	Imported sources should be specified in import actions
	<i>transfer</i> SourceTransfer date should be within the transfer authorization validity period
	If the source transfer type is permanent, then the source should not be returned
	<i>transport</i> Source receipt should be after the shipment date
	Transport date should be within the transport authorization validity period
Inspection	New inspection status dates should be greater than the already existing status dates
	Existing status records should not be modified; changes should be entered as new status records
Enforcemnt	Response date should be after the enforcement action date
Workers	New worker status dates should be greater than the already existing status dates
	Existing status records should not be modified; changes should be entered as new status records
	doses should be positive value
	There should be only one annual dose per year

If a consistency check fails, RAIS 3.1 Web will display a warning message asking RAIS regulators to confirm acceptance or rejection of modified data. For practical reasons no automatic rejection is implemented in RAIS 3.1 Web

RAIS 3.1 Web evaluates the radioactivity of a sealed source within a practice based on the following table. If the activity is outside the range of that practice, a warning message appears.

Practice	Nuclide	Min. Activity (TBq)	Max. Activity (TBq)
Analytical Techniques	Cd-109	1.10E-03	5.60E-03
	Co-57	1.90E-04	3.70E-03
	Fe-55	1.10E-04	5.00E-03
	H-3	1.90E-03	1.10E-02
	Ni-63	1.90E-04	7.40E-04
Calibration Services	Am-241	1.90E-01	7.40E-01
	Co-60	2.00E-02	1.20E+00
	Cs-137	5.60E-02	1.10E+02
	Pu-239/Be	7.40E-02	3.70E-01
	Sr-90	7.40E-02	7.40E-02
Diagnostic and Interventional Radiology	Am-241	1.00E-03	1.00E-02
	Cd-109	7.40E-04	7.40E-04
	Gd-153	7.40E-04	5.60E-02
	I-125	1.50E-03	3.00E-02
Fixed Nuclear Gauges	Am-241	4.40E-04	2.20E-02
	Cm-244	7.40E-03	3.70E-02
	Co-60	3.70E-03	3.70E-01
	Cs-137	1.90E-04	3.70E-01
	Kr-85	1.90E-03	3.70E-02
	Pm-147	1.90E-03	1.90E-03
	Sr-90	3.70E-04	7.40E-03
Industrial Irradiation	Co-60	3.70E+01	5.60E+05
	Cs-137	3.70E+01	1.90E+05
Industrial Radiography	Co-60	4.10E-01	7.40E+00
	Ir-192	1.90E-01	7.40E+00
	Se-75	3.00E+00	3.00E+00
	Tm-170	7.40E-01	7.40E+00
	Yb-169	9.30E-02	3.70E-01
Mobile Nuclear Gauges	Am-241/Be	3.70E-04	3.70E-03
	Cf-252	1.10E-06	1.40E-03
	Co-60	9.60E-03	9.60E-02
	Cs-137	3.00E-04	1.50E+00
	Ra-226	7.40E-05	1.50E-04
Nuclear Medicine	Ge-68	3.70E-05	3.70E-04
	I-131	3.70E-03	7.40E-03
	Mo-99	3.70E-02	3.70E-01
	P-32	2.20E-03	2.20E-02
Radiotherapy	Au-198	3.00E-03	3.00E-03
	Cf-252	3.10E-03	3.10E-03
	Co-60	1.90E-01	5.60E+02
	Cs-137	3.70E-04	5.60E+01
	I-125	1.50E-03	1.50E-03
	Ir-192	7.40E-04	4.40E-01
	Pd-103	1.10E-03	1.10E-03
	Ra-226	1.90E-04	1.90E-03
	Ru-106/Rh-106	8.10E-06	2.20E-05
	Sr-90	7.40E-04	1.50E-03

Practice	Nuclide	Min. Activity (TBq)	Max. Activity (TBq)
Well Logging	Am-241/Be	1.90E-02	8.50E-01
	Cf-252	1.00E-03	4.10E-03
	Cs-137	3.70E-02	7.40E-02
	H-3	1.10E-01	1.10E+00

9 Annex B Guide for Good Practice

As a recommendation for good practice and for optimizing the work with RAIS 3.1 Web, RAIS 3.1 Web users are advised to:

- 1 Select the relevant facility and, if applicable, the relevant department before entering data or selecting an information item. This pre-selection will be propagated to all RAIS operations in all regulatory activities. It will make it easier, for example, to place a source in that facility or to issue an authorization for it.
- 2 Be sure to follow the right ordering of data. For example, to enter a new radiation generator, be sure that its model already exists in the database. To enter a radiation generator model, its manufacturer has to be already in the database. Back-hooks from the generator itself form are not provided for!
- 3 Start by entering information about the associated equipment when entering data about a sealed or unsealed source. Don't worry if you start with the source itself. It is always possible to add the sealed (or unsealed) source associated equipment information at a later stage
- 4 When changing the status of a sealed or unsealed source, be sure to change the status of the associated equipment accordingly if necessary. This is of particular importance if the source is moved to another facility.
- 5 When entering information about import or export actions, be sure to update the status of the imported/exported sources and associated equipment accordingly! RAIS 3.1 Web does not update the source status automatically.

10 Annex C How to...

This annex gives answers on how to use RAIS 3.1 Web from the regulatory point of view in some typical situations. These *How to*'s are written in a Q&A style.

C.1 Regulatory Functions

Q *How to determine the current inventory of a facility?*

A Run the query “sources in a facility” under the “facility status” menu item of the query mask.

Q *How to find out what facilities are operating in a specific practice?*

A Run the query “facilities in a practice” under the menu item “inventory”.

Q *How to identify the allocation of responsibilities at a facility?*

A To enter data about the responsibilities allocation at a facility, follow the instructions in section 3.11 and enter data about the worker and their tasks. Tasks may include the responsibilities, e.g. manager, section head or radiation protection officer, etc.
To view the responsibilities allocated to the workers, run the query “workers in a facility” under the menu item “facility status.”

Q *How to find out the RPO of a facility?*

A Run the query “workers in a facility”. A report listing all workers of the selected facility together with their tasks appears. Identify the RPO.

Q *How to know in which associated equipment a sealed source is currently stored?*

A Follow the instructions in section 3.4 to view the sealed source. Switch to the ***Sealed Source Associated Equipment Status*** tab. It displays information about the current associated equipment of the sealed source.

Q *How to transfer a sealed source from one facility to another?*

A Follow the instructions in section 3.4 to add a new status record for the sealed source specifying the new facility and any other relevant information.

Q *How to look for past locations of a source?*

A From the history submenu in the query treeview, select source history. Select the source as input parameter. The resulting report lists all recorded history entries of the source.

Q *How to move a sealed source from Associated Equipment X to a container?*

A Containers are associated equipment. To move the source to a container, enter the container as described in section 3.6; then follow the instructions of section 3.4.2.3 to add a new sealed-associated-equipment status specifying the container as the new associated equipment.

Q *How to authorize a source for import in RAIS 3.1 Web?*

A First, enter the data of the source. Assign the source to the importing facility and set its status as “not imported”. Then, enter the data of the import authorization as explained in section 3.7.2 and specify the source in “authorization sources”.

Upon importing the source at a later stage, edit the import authorization data, add the data of the import actions and specify the imported source (see section 3.7.2.3). Finally, edit the source data and change its status as applicable (see section 3.4.2.2).

Note

RAIS 3.1 Web will not automatically update the status of the source after import. RAIS regulators have to do this manually to maintain the integrity of the data.

Note

Only sources for which the status is “not imported” may be specified in the authorization sources of the import authorization.

Q *How to determine the expected number of authorizations to be renewed in the next year?*

A From the statistics mask, click the menu item **Authorizations Expiring** and specify begin and end dates of the next year.

Q *How to find out authorization applications which are not yet processed?*

A From the query mask, run the query **Authorizations Pending**. A report is displayed listing the authorization applications which have not been issued or rejected yet.

Q *How to determine the current facility of a source?*

A From the input mask, select the source, click **View** and switch to the **Status** tab. The current status of the source is displayed.

Q *How to build the programme of regular inspections for the next quarter?*

A Simply run the query **Inspections Pending** under the menu item *inspections* of the query mask. Specify begin and end dates of the next quarter as input parameters.

Q *How to find responses of a facility to an enforcement action?*

A In the input mask, select the facility and then view the relevant enforcement action. The field *responses* describes the facility response to the enforcement action.

Q *How to find out pending follow-up actions?*

A From the query mask, run the query **Non-responded Enforcement actions** under the enforcement submenu.

Q *How to determine the service providers in the country?*

A Select the menu item **Service Provider** from the input mask as described in section 3.13. In the pre-selection view; all service providers are displayed.

C.2 Quality Assurance & Management

Q *How to obtain an overview of the development of an authorization process?*

A In RAIS 3.1 Web, each step of the authorization process can be saved together with its date of completion and the responsible regulatory authority officer(s). From the query menu, click the **Authorization Process Overview** to obtain a report on the development of the authorization process.

Q *How to obtain an overview on the development of an inspection?*

A Click the **Inspection Overview** in the query mask.

Q *How to assess workload distribution of the regulatory authority inspectors?*

A In the query mask, click the menu item **Inspections made by Inspector**.

C.3 Analysis of programme data and Performance Indicators

Q *How to get an overview of the performance of regulatory programme?*

A From the statistics mask, click **Practice Profile**. The displayed report contains information on the numbers of facilities, authorized facilities, sources, associated equipment items, occupationally exposed workers and monitored workers.

Q *How to assess the performance of the regulatory authority's enforcement policy?*

A From the query mask, click the queries: **Non-responded Enforcement Actions** and **Closed Enforcement Actions**. Also, look in the statistics mask for “number of enforcement actions” by practice.

Q *How to assess dose distribution of a practice?*

A From the statistics menu, run the query **Dose Distribution**. Select the practice as input parameter.

Q *How to find out the number of radiation events in a practice?*

A From the statistics mask, click the **Number of Radiation Events by Practice**.

11 Annex D Technical how to..

This annex gives answers on how to use RAIS 3.1 Web from the technical point of view in some typical situations. These *How to*'s are written in a Q&A style.

Q *How to have multiple copies of RAIS 3.1 Web open with different logins*

A To be logged into RAIS 3.1 Web as 2 different users at the same time, 2 separate browser windows must be used (please note that separate tabs will not work).

Q *On rare occasions when changing menu items I receive a RAIS 3.1 Web error page*

A The main possible cause for receiving this error when changing pages, is clicking too fast, only a single click is required to change menu items, additionally please wait for the mask to fully load before clicking another link.