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FEDERAL AGENCY FOR
NUCLEAR CONTROL

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FEDERAL AGENCY FOR NUCLEAR CONTROL

Update Dose register

Sophie Léonard

FANC training session 10 November 2023

Introduction

- Around 50 000 occupationally exposed persons in Belgium in various activity sectors, professional practices, professional profiles

Nuclear
- U enrichment and conversion
- Reactor operation
- …

Industry
- Industrial irradiation
- Industrial radiography
- …

Medicine
- Conventional RX-diagnostic
- Mammography
- …

- Physician
- Nurse
- …

Transport
- Radioactive material for nuclear purposes
- Radioactive material for other purposes

Natural
- Civilian aircrew

- Cockpit crew
- Cabin crew

- NORM: Routine operations
- NORM: Maintenance or decommissioning activities
- Radon exposure

....

Introduction

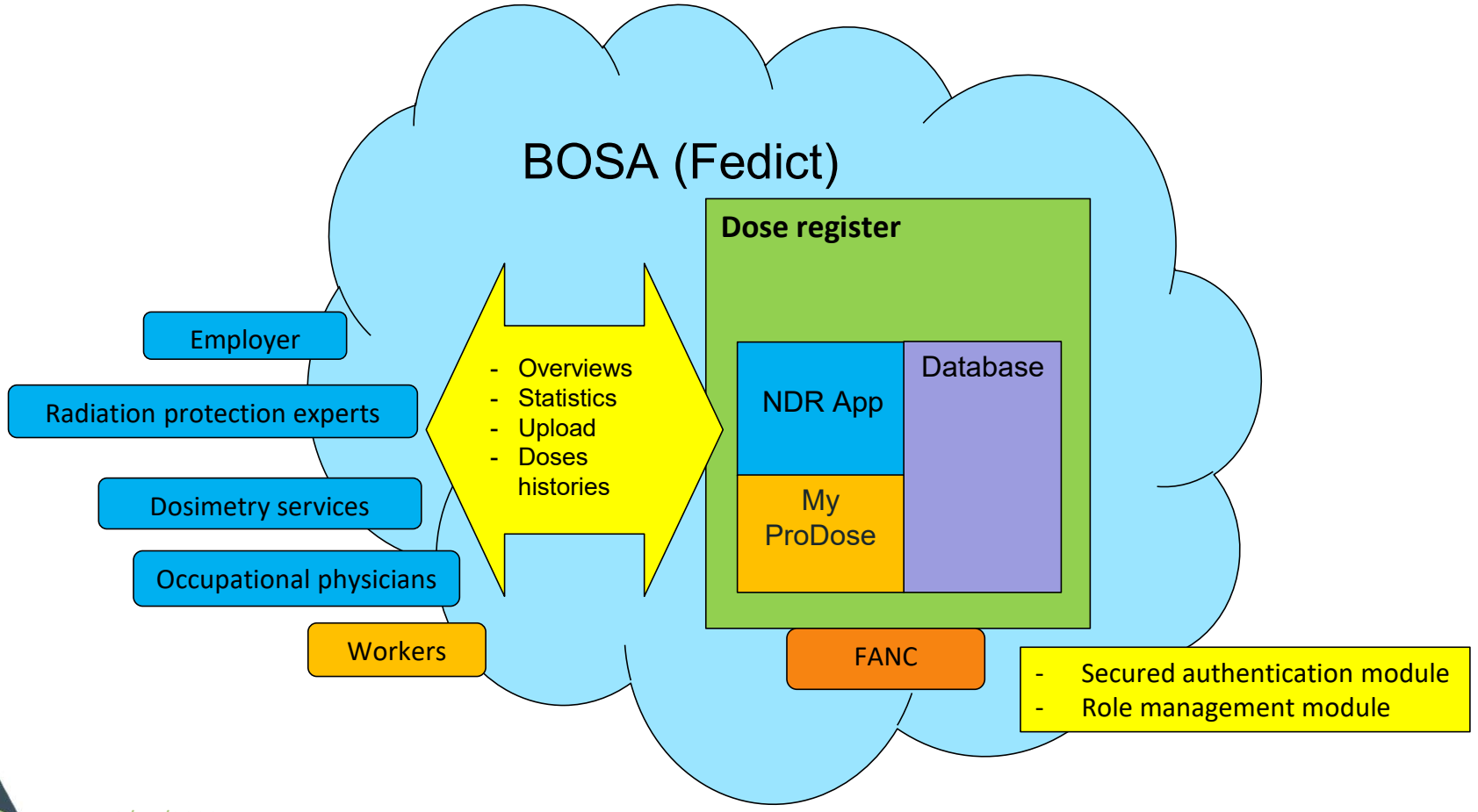
- Each occupationally exposed person should be subject to dosimetric monitoring

- Why?
  - Checking **dose limits** → ❖ Preventing deterministic effects
  - **ALARA** dose management → ❖ Keep risk for stochastic effects as low as possible
  - Individual dosimetry = **legal element** for declaration of a radiation-induced occupational disease
  - In case of **accidental exposure**:
    - ✓ Dosimeter = important witness/evidence
    - ✓ In case of acute exposures: dose assessment = important data to guide medical treatment!
    - ✓ If no dosimeter: more difficult dose reconstruction process and higher uncertainty on the dose estimate

Usefulness of the exposure register

- Centralize the persons dosimetric monitoring data throughout their entire career.
- Check the proper functioning of the dosimetric monitoring organisation on the field
- Check for compliance with dose limits
- Draw up a dose history for an individual. *Example: request for recognition for an occupational disease addressed to FEDRIS*
- Draw up overviews/statistics for a group of people:
  - Prepare inspections on the field
  - National or international dose studies by activity sectors or professional practices
  - Identification of optimization margins

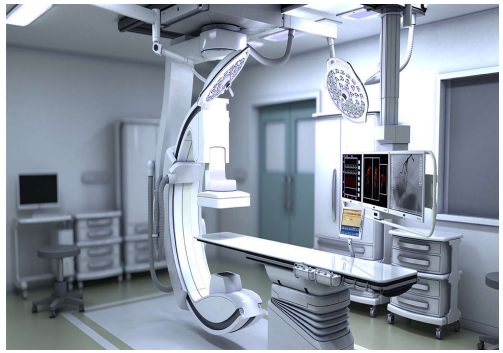
Diagram of the system



Doses transferred to the exposure register by the sector

- **Licensees are responsible** for dose transfers
- They happen **under the supervision of the radiation protection experts**
- Since 5 December 2020, **regulatory framework complete and effective** :
  - ✓ according to regulation, gradual frequency increase : **since March 2023, cruising speed is reached, based on the monitoring cycle**
  - ✓ Mandatory **information on activity sector and professional practice** linked to doses

  → **interesting statistics and analyses!**



Roles and responsibilities of the occupational physicians regarding to the doses

- **Regular monitoring of the doses:**
  - ✓ By using the exposure register (doses to be submitted within 2 months from end of monitoring period)
  - ✓ By using the dose records provided by the health physics departments (still an obligation!)
- **Evaluation and interpretation of the doses from the health point of view**
- **Recording of the doses into the health files**
- **In case of accidental internal/external doses:**
  - ✓ Advice on the medical treatment that could be required
  - ✓ Advice on immediate and preventive measures
- **If dose limits are exceeded:**
  - ✓ Exceptional medical surveillance examination
  - ✓ Advice on whether the worker should remain at the workstation (with accommodations) or be removed from it
  - ✓ If necessary, extended medical surveillance

How can you access the NDR-application?

- **Facilitated access** modalities for external occupational physicians are **effective**
- Access can be **granted directly by your own employer** rather than by each affiliated company
- **Direct access to the doses of the workers monitored in all companies** affiliated to your medical service.
- External medical services invited in early 2023 to take the necessary steps to assign you an NDR role. Recently reminded to do so and provided with a short instruction manual.
- If you have not yet received your NDR role, please raise it within your external medical service.

NDR-role assignment steps

- CSAM gateway https://www.csam.be:

Legal Representative (CEO)

Chief Access Manager (either him/her self or a collaborator)

Access Manager (Home Affairs domain)

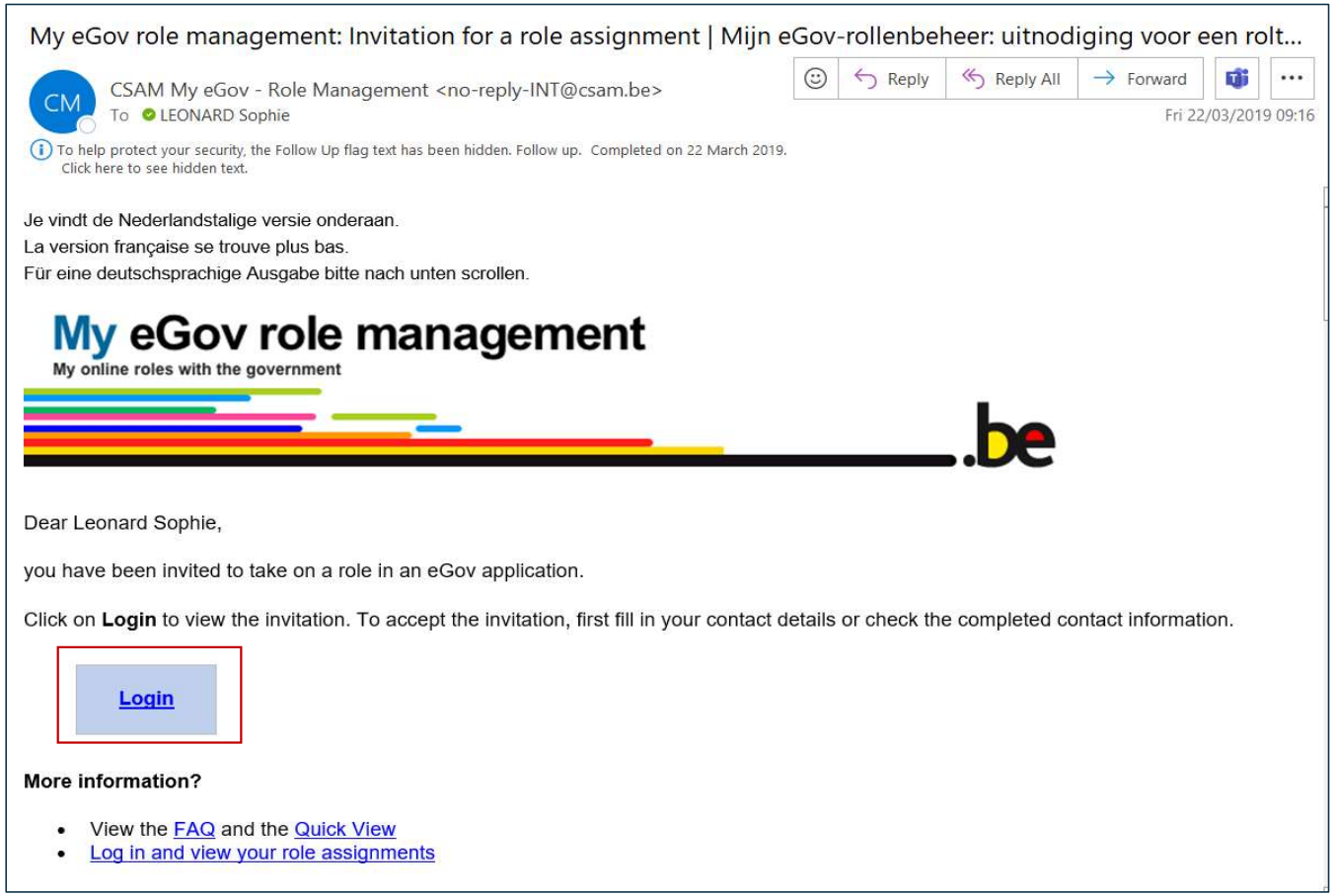
- eGov Role Management Portal https://iamapps.belgium.be/rma:

NDR roles assignment:

FANC Worker Dose – Consult

FANC Worker Dose – Data Management

Invitation for a role assignment



My eGov role management: Invitation for a role assignment | Mijn eGov-rollenbeheer: uitnodiging voor een rolt...

CM

CSAM My eGov - Role Management <no-reply-INT@csam.be>

To LEONARD Sophie

Reply | Reply All | Forward

Fri 22/03/2019 09:16

To help protect your security, the Follow Up flag text has been hidden. Follow up. Completed on 22 March 2019.
Click here to see hidden text.

Je vindt de Nederlandstalige versie onderaan.
La version française se trouve plus bas.
Für eine deutschsprachige Ausgabe bitte nach unten scrollen.

My eGov role management

My online roles with the government

.be

Dear Leonard Sophie,

you have been invited to take on a role in an eGov application.

Click on **Login** to view the invitation. To accept the invitation, first fill in your contact details or check the completed contact information.

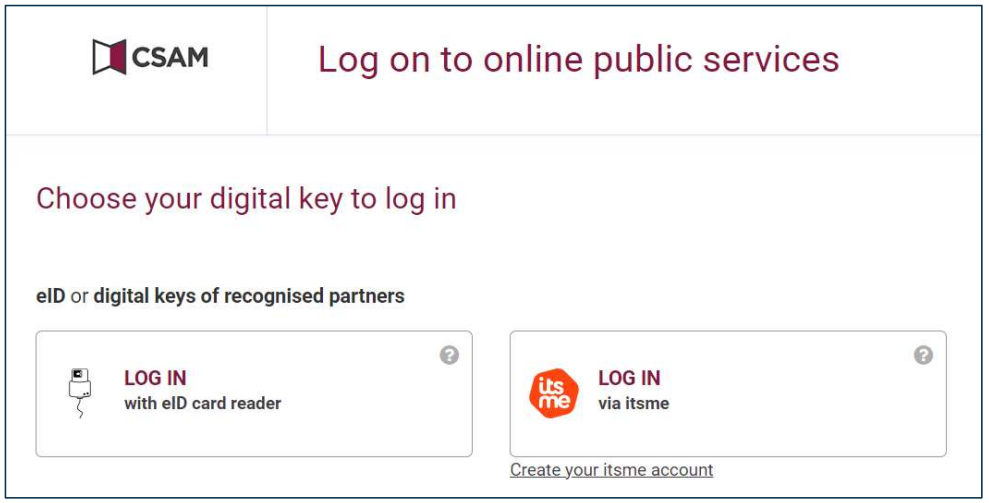
Login

More information?

- View the FAQ and the Quick View
- Log in and view your role assignments

Once you have accepted the NDR-role

- Go on the FANC Data eXchange Platform: https://dxp.fanc.be



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AGENCE FÉDÉRALE DE CONTRÔLE NUCLÉAIRE

Data eXchange Platform Applications Sophie Léonard (U220103

Welcome to the FANC Data Exchange Platform

Info: Modules you don't have access to are grayed out. You can consult your current organisation roles by clicking on your name on the right hand side of the menu bar. Consult the **access guide** for more information on how to obtain adequate roles.

The FANC DXP is subdivided into different applications (modules). Please choose a module below or from the menu bar.

NDR

National Dose Register

Consult the help section

EDWD

Euratom Drinking Water Directive

Consult the help section

SRT / NORM

Radiologic Surveillance / Naturally Occurring Radiative Material

Consult the help section

PHI

Physical Inventory

Consult the help section

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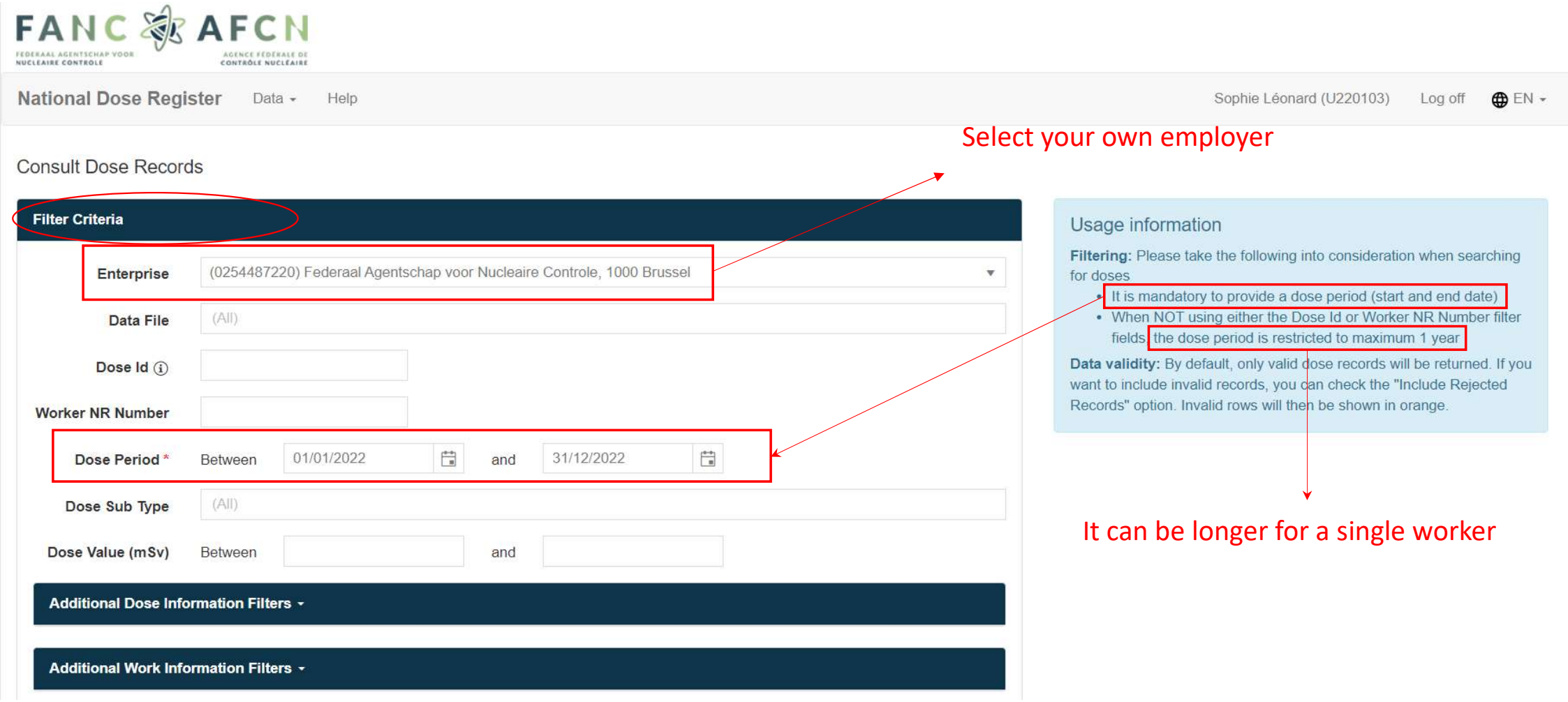
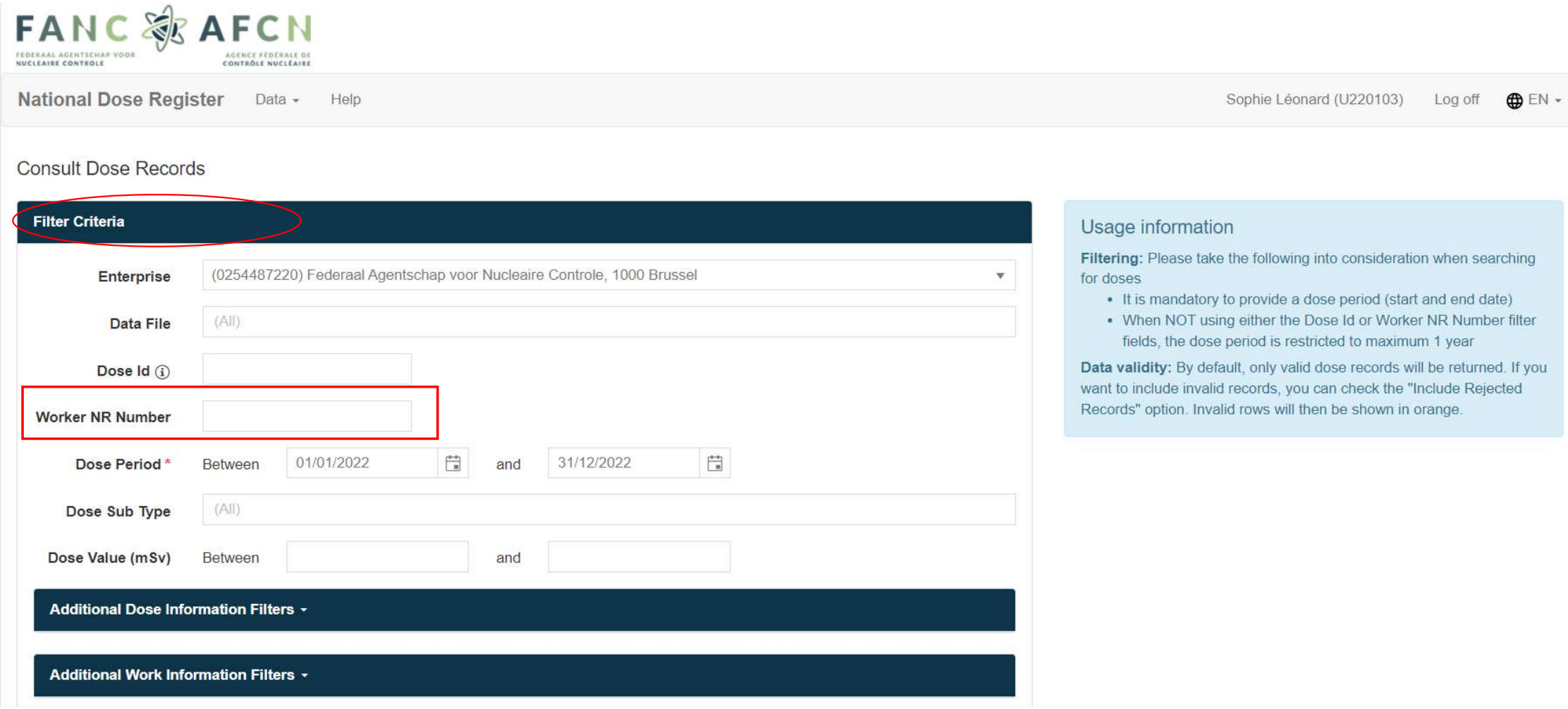
National Dose Register
Data
Help
Submission
Consult
National Dose Register
Please choose your desired action from the menu bar


FANC AFCN
National Dose Register
Data
Help
Sophie Léonard (U220103)
Log off
EN
Select your own employer
Consult Dose Records
Filter Criteria
Enterprise
(0254487220) Federaal Agentschap voor Nucleaire Controle, 1000 Brussel
Data File
(All)
Dose Id
Worker NR Number
Dose Period *
Between
01/01/2022
and
31/12/2022
Dose Sub Type
(All)
Dose Value (mSv)
Between
and
Additional Dose Information Filters
Additional Work Information Filters
Usage information
Filtering: Please take the following into consideration when searching for doses
It is mandatory to provide a dose period (start and end date)
When NOT using either the Dose Id or Worker NR Number filter fields, the dose period is restricted to maximum 1 year
Data validity: By default, only valid dose records will be returned. If you want to include invalid records, you can check the "Include Rejected Records" option. Invalid rows will then be shown in orange.
It can be longer for a single worker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AGENCE FÉDÉRALE DE CONTRÔLE NUCLÉAIRE
National Dose Register
Data
Help
Sophie Léonard (U220103)
Log off
EN
Consult Dose Records
Filter Criteria
Enterprise
(0254487220) Federaal Agentschap voor Nucleaire Controle, 1000 Brussel
Data File
(All)
Dose Id
Worker NR Number
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and
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(All)
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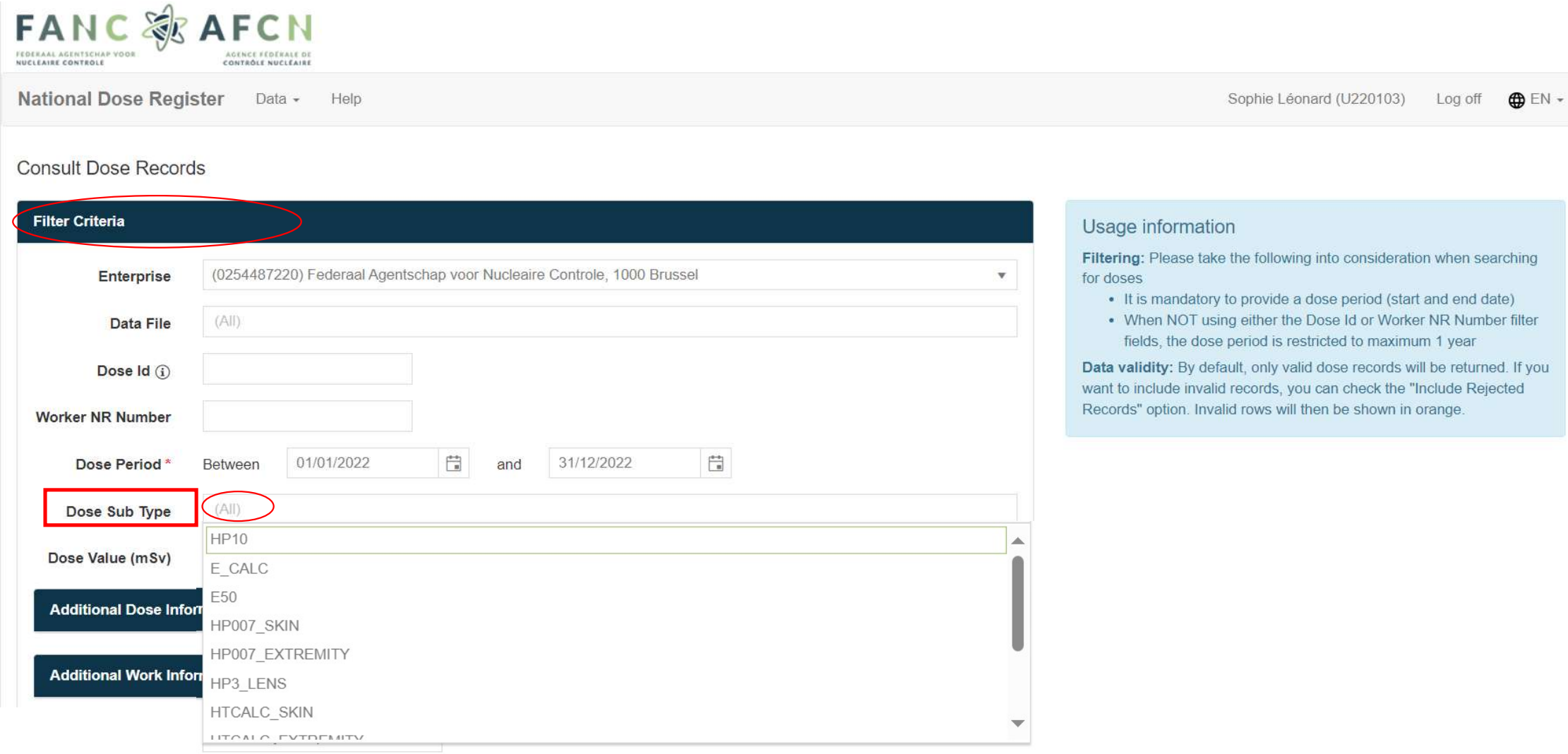
FANC AFCN
National Dose Register
Data
Help
Sophie Léonard (U220103)
Log off
EN
Consult Dose Records
Filter Criteria
Enterprise
(0254487220) Federaal Agentschap voor Nucleaire Controle, 1000 Brussel
Data File
(All)
Dose Id
Worker NR Number
Dose Period *
Between
01/01/2022
and
31/12/2022
Dose Sub Type
(All)
Dose Value (mSv)
Additional Dose Infor
Additional Work Infor
HP10
E_CALC
E50
HP007_SKIN
HP007_EXTREMITY
HP3_LENS
HTCALC_SKIN
Usage information
Filtering: Please take the following into consideration when searching for doses
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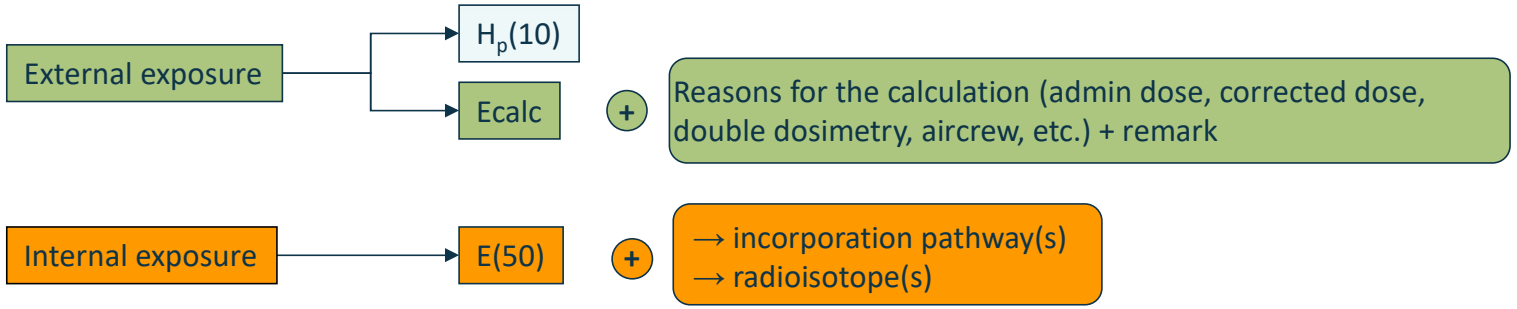
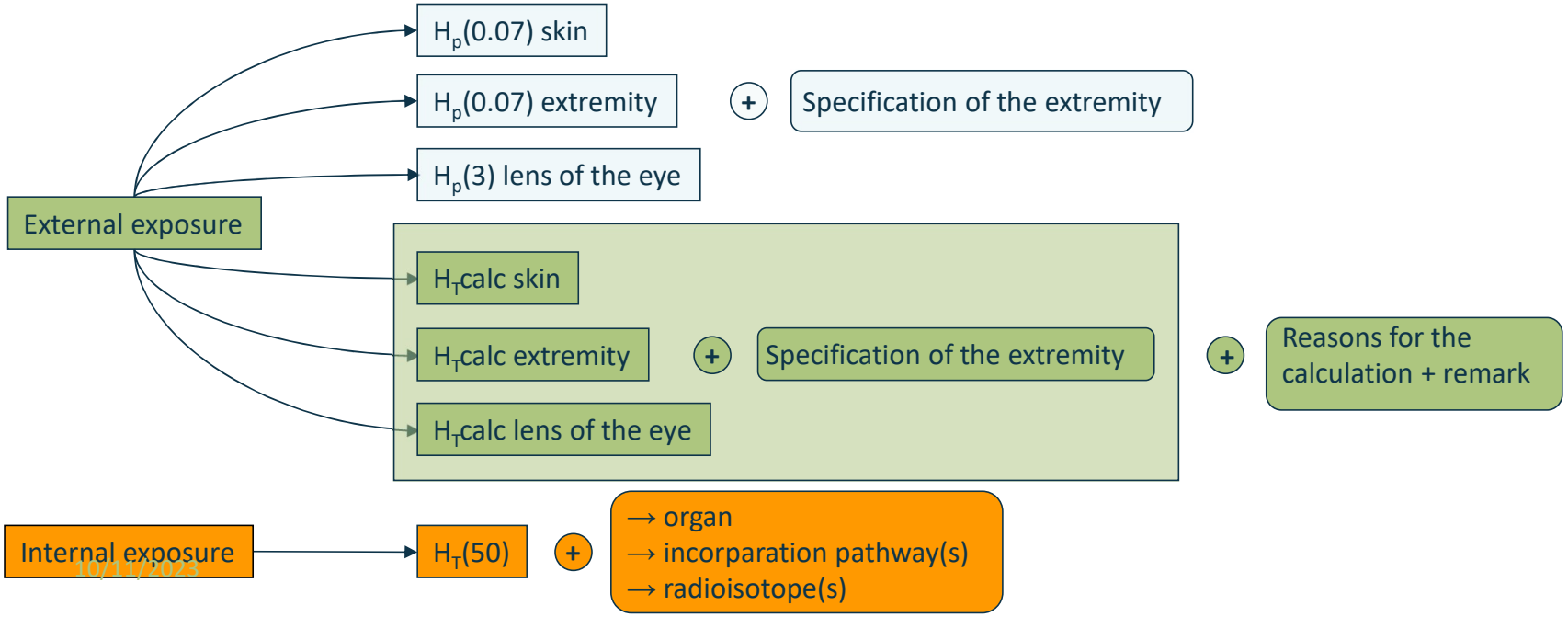
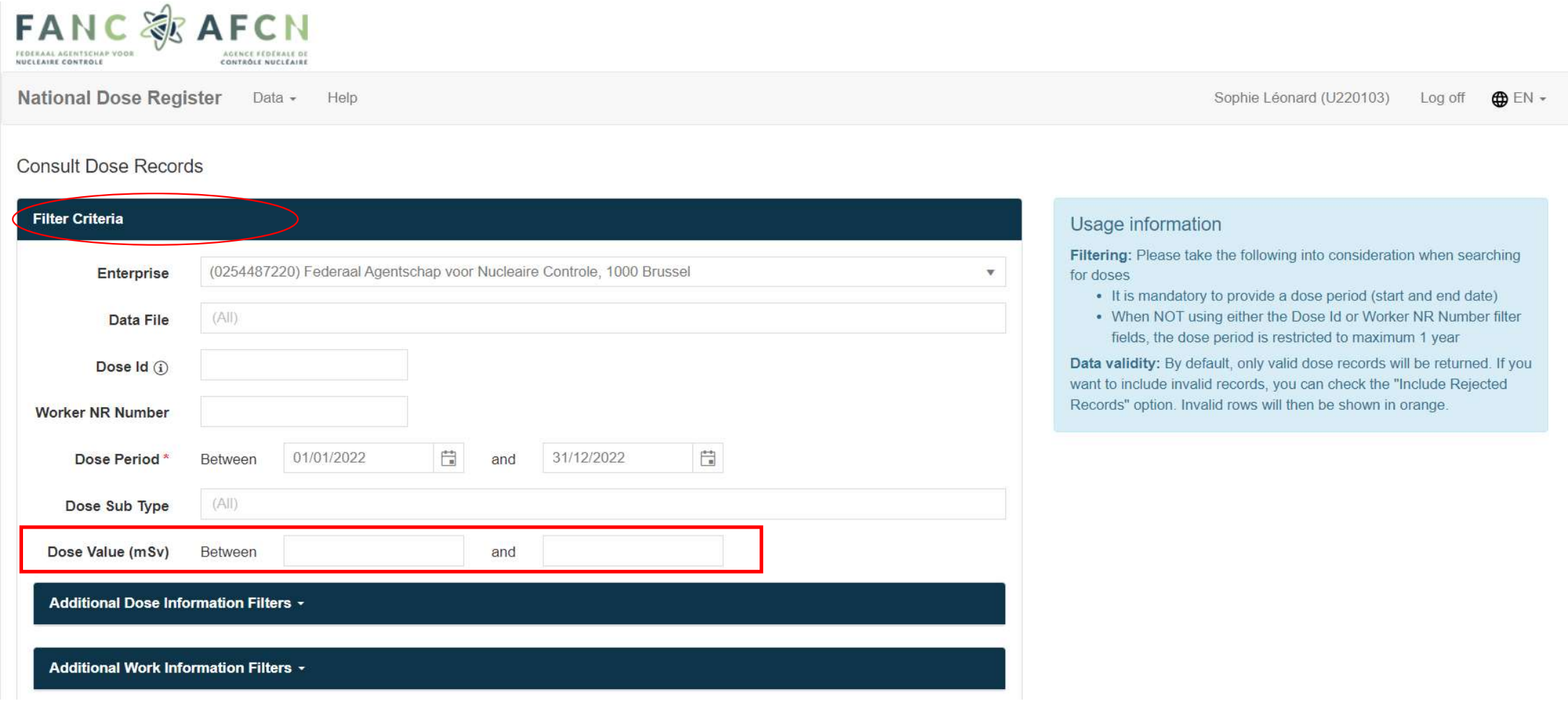
Classification of the dose subtypes used in NDR

- Effective dose E



- Equivalent dose (H_T) in a part of the body




FANC AFCN
National Dose Register
Data
Help
Sophie Léonard (U220103)
Log off
EN
Consult Dose Records
Filter Criteria
Enterprise
(0254487220) Federaal Agentschap voor Nucleaire Controle, 1000 Brussel
Data File
(All)
Dose Id
Worker NR Number
Dose Period *
Between
01/01/2022
and
31/12/2022
Dose Sub Type
(All)
Dose Value (mSv)
Between
and
Additional Dose Information Filters
Additional Work Information Filters
Usage information
Filtering: Please take the following into consideration when searching for doses
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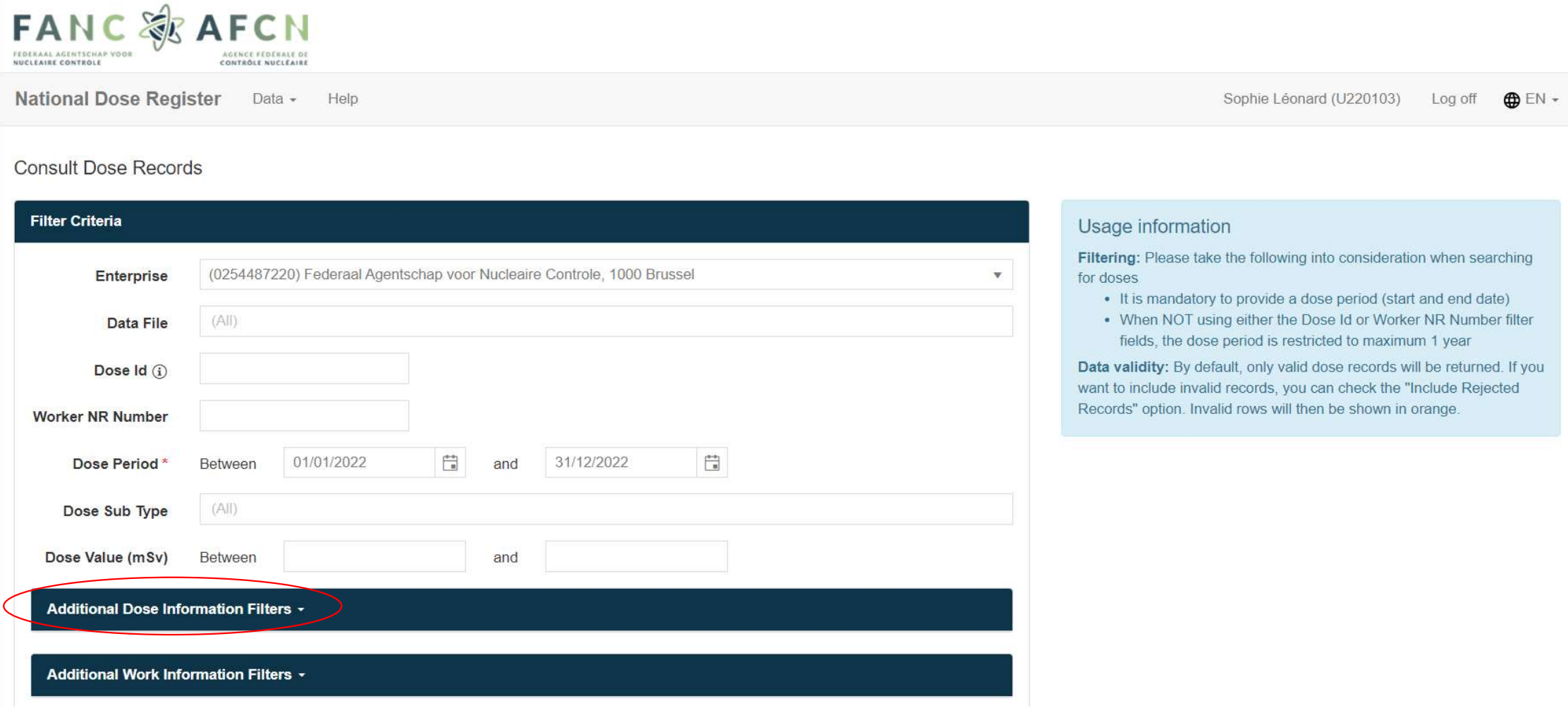
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Dose Value (mSv)
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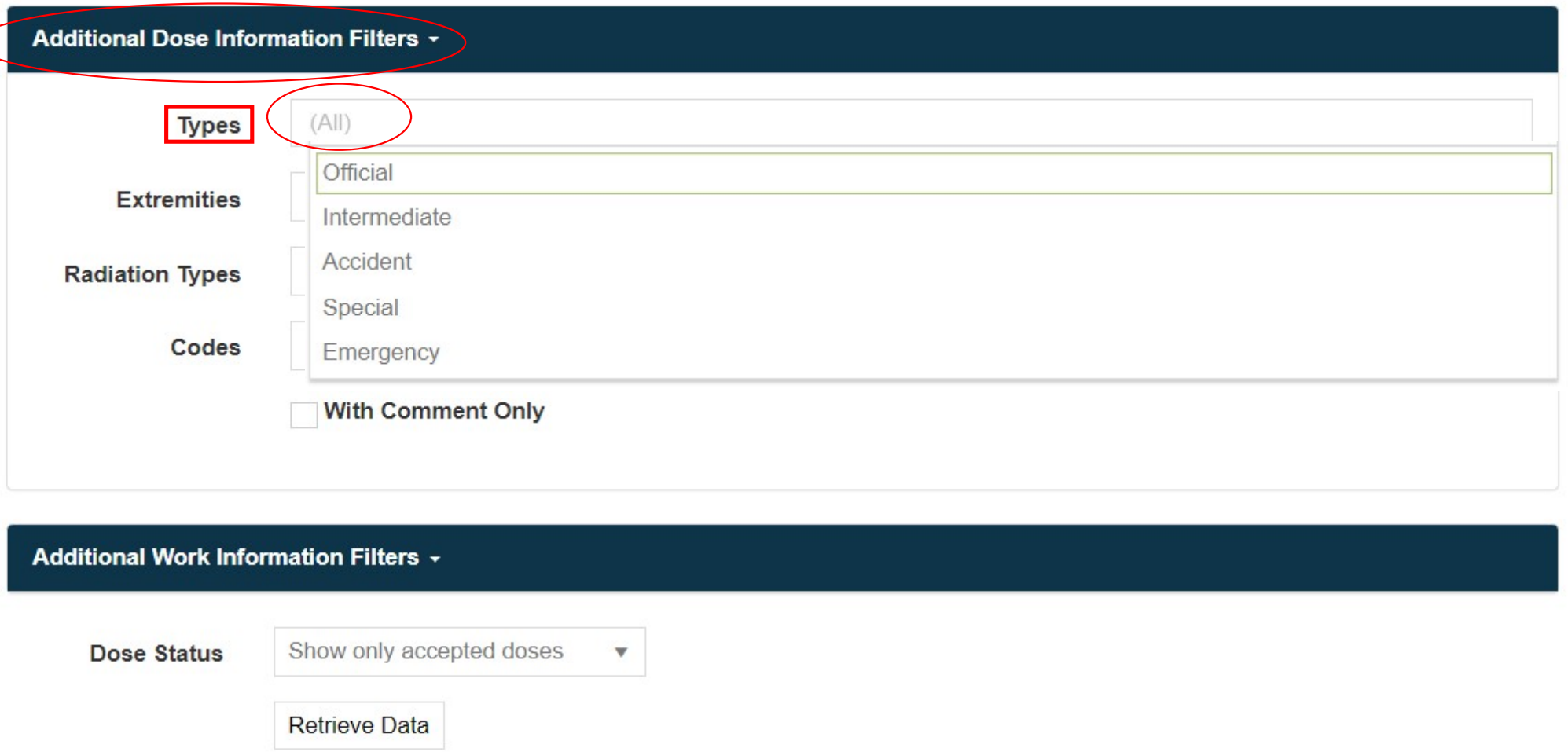
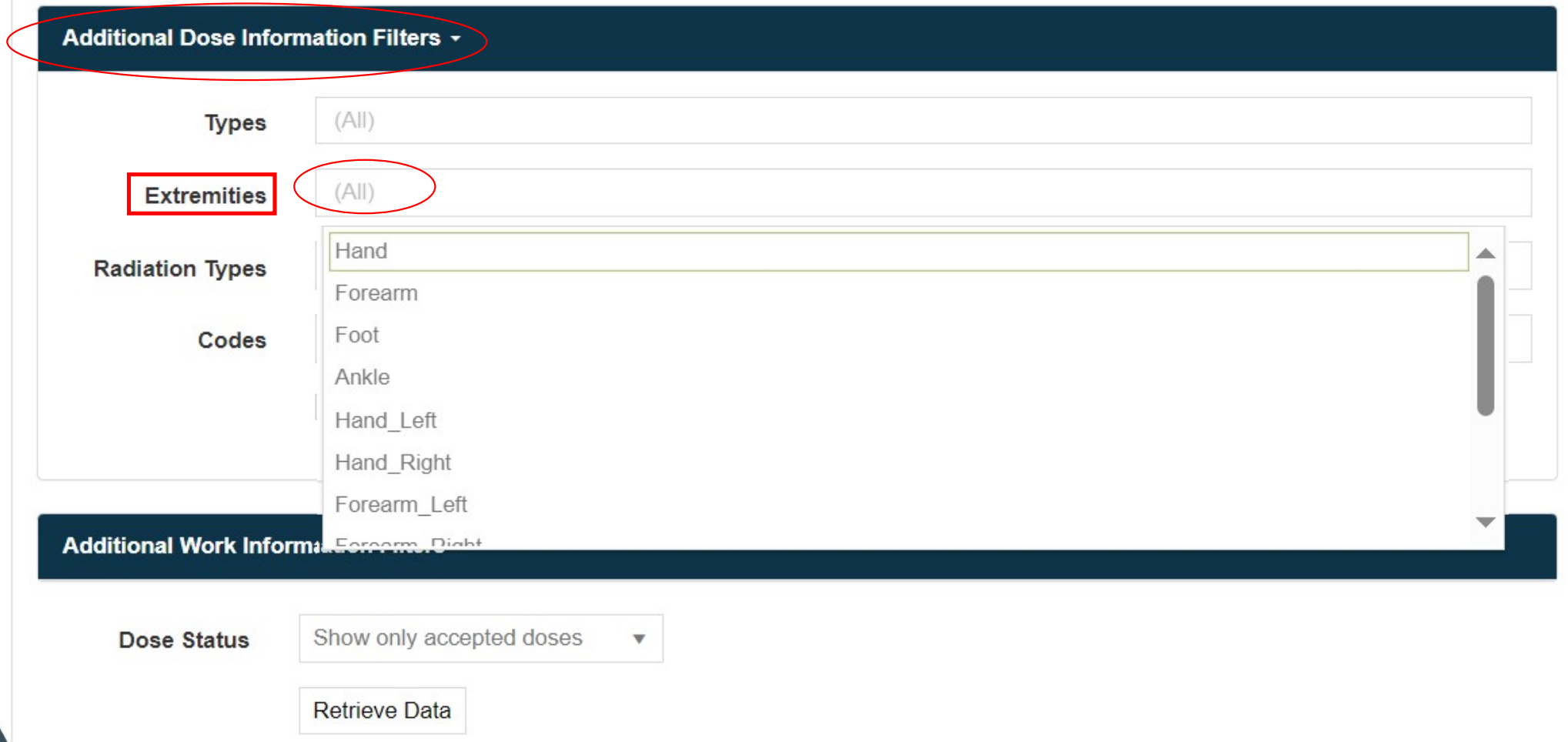

Additional Dose Information Filters
Types
(All)
Official
Intermediate
Accident
Special
Emergency
Extremities
Radiation Types
Codes
With Comment Only
Additional Work Information Filters
Dose Status
Show only accepted doses
Retrieve Data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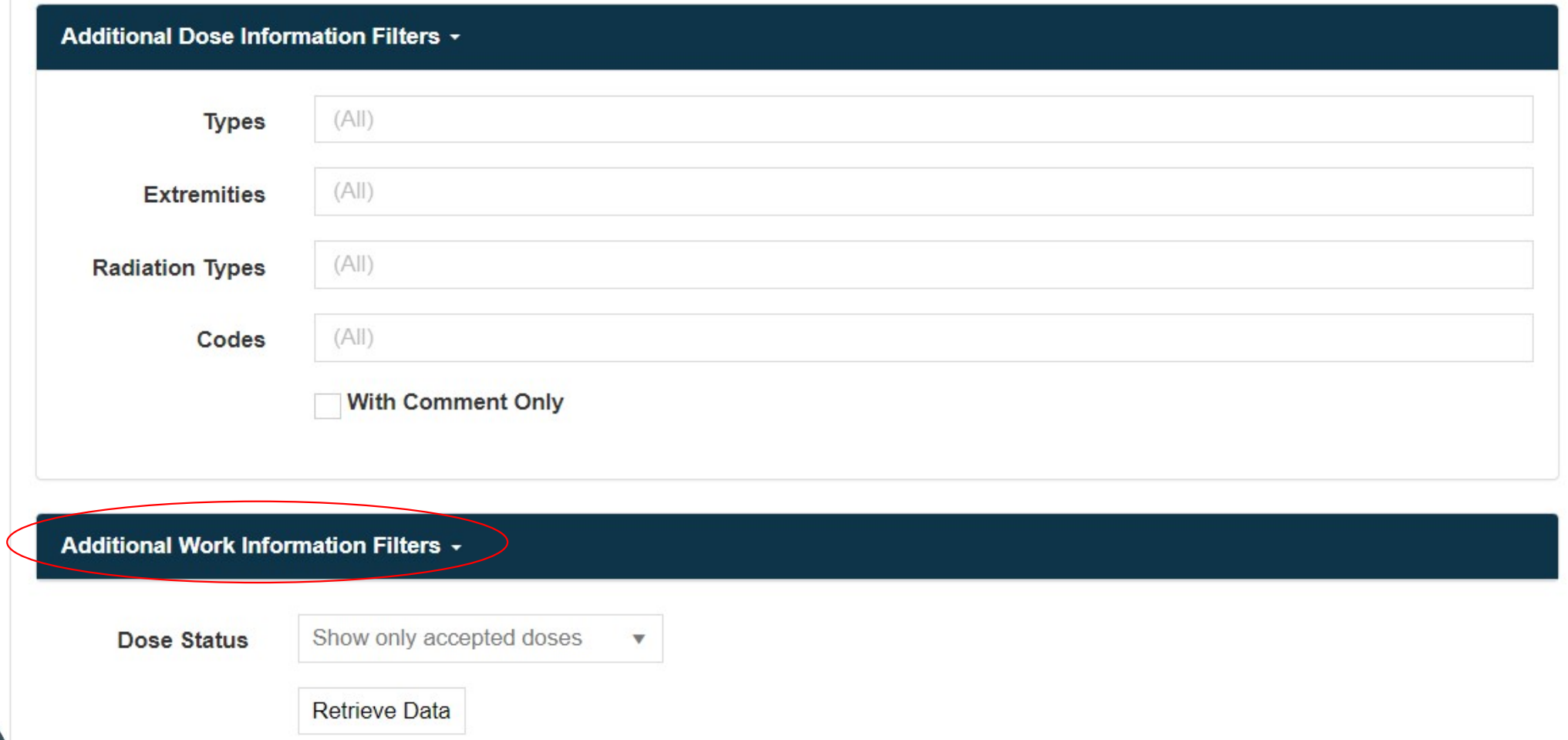
Types
(All)
Extremities
(All)
Radiation Types
Codes
Hand
Forearm
Foot
Ankle
Hand_Left
Hand_Right
Forearm_Left
Additional Work Informa
Dose Status
Show only accepted doses
Retrieve Data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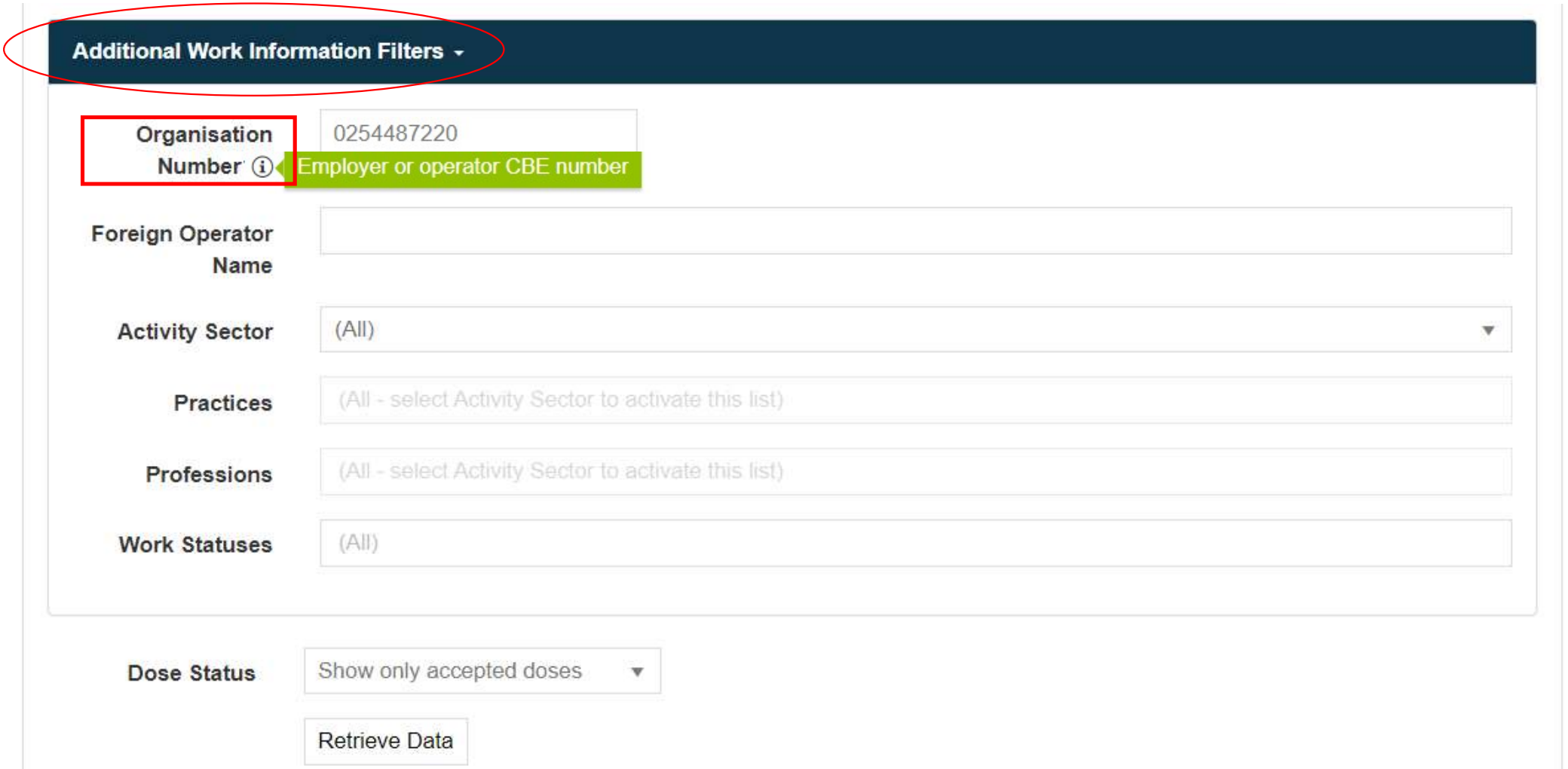
Types
(All)
Extremities
(All)
Radiation Types
(All)
Codes
(All)
With Comment Only
Additional Work Information Filters
Dose Status
Show only accepted doses
Retrieve Data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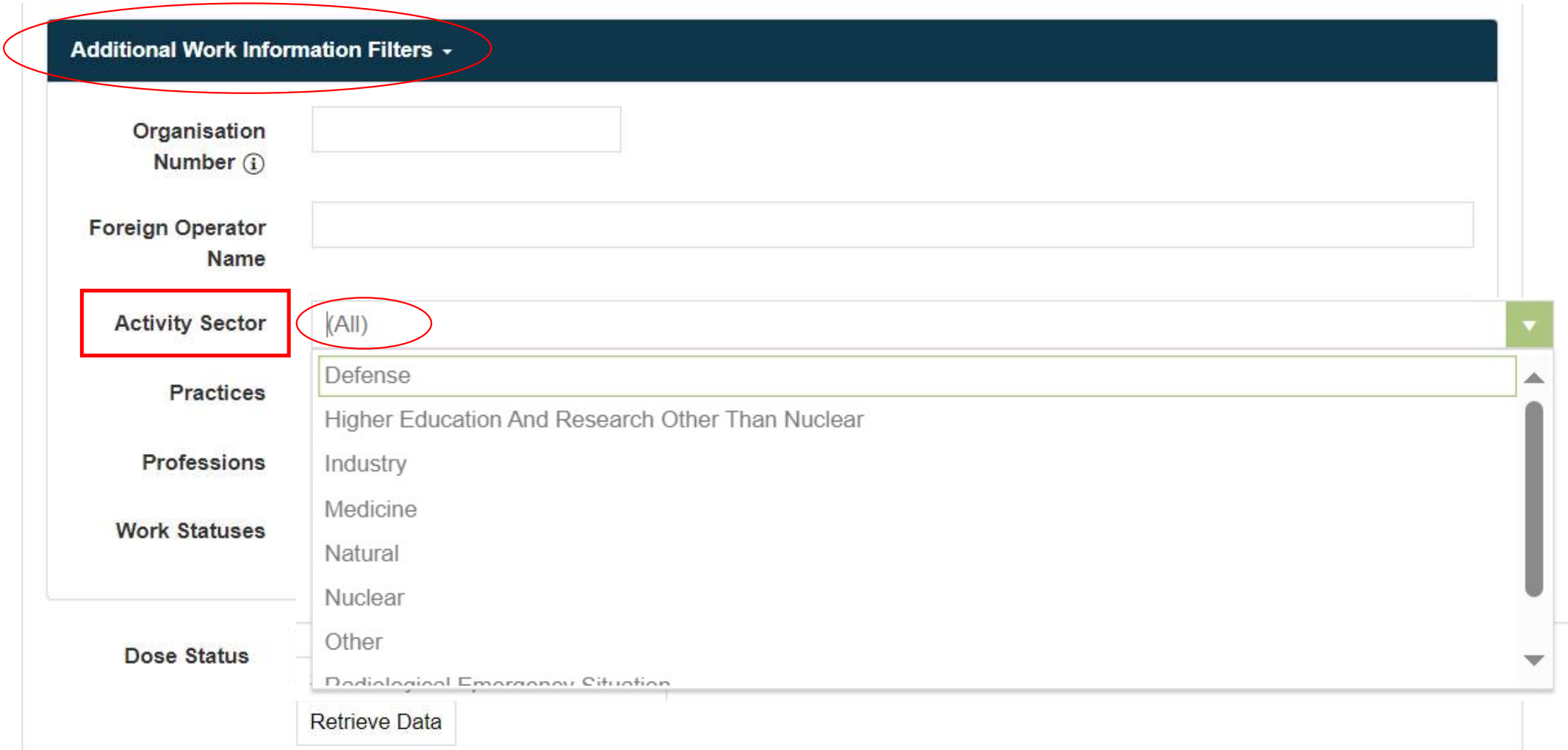
0254487220
Employer or operator CBE number
Foreign Operator Name
Activity Sector
(All)
Practices
(All - select Activity Sector to activate this list)
Professions
(All - select Activity Sector to activate this list)
Work Statuses
(All)
Dose Status
Show only accepted doses
Retrieve Data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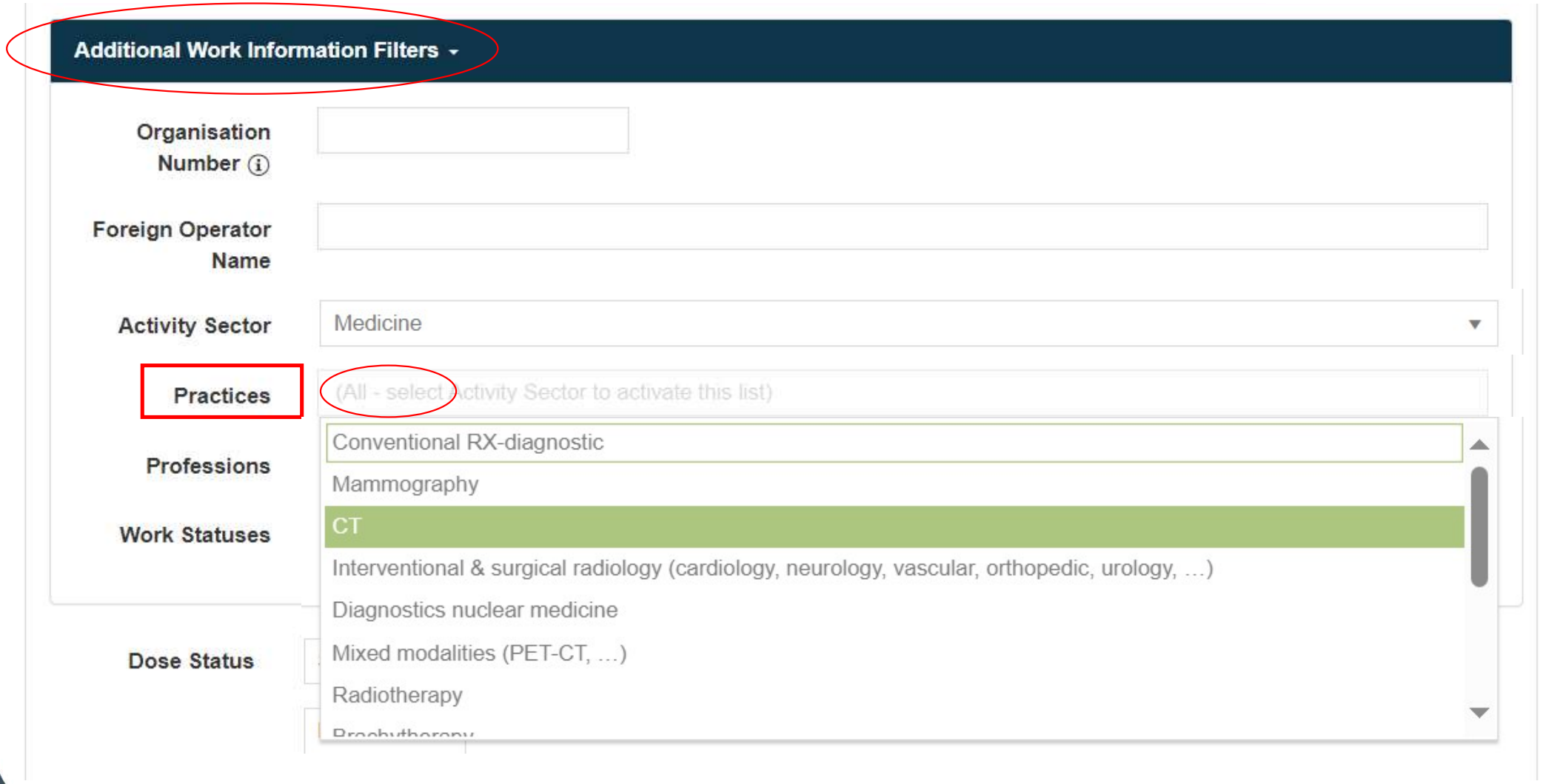
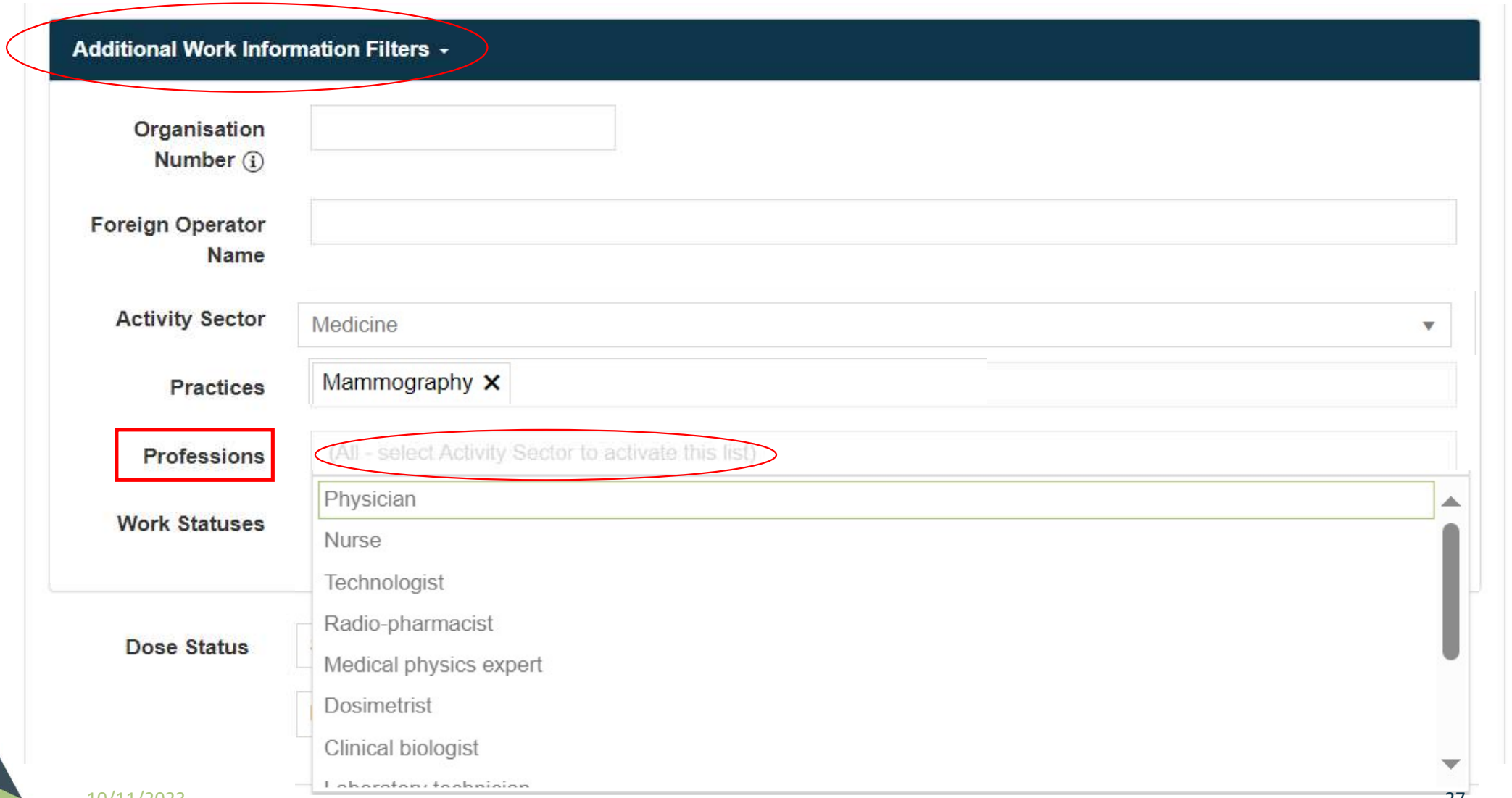
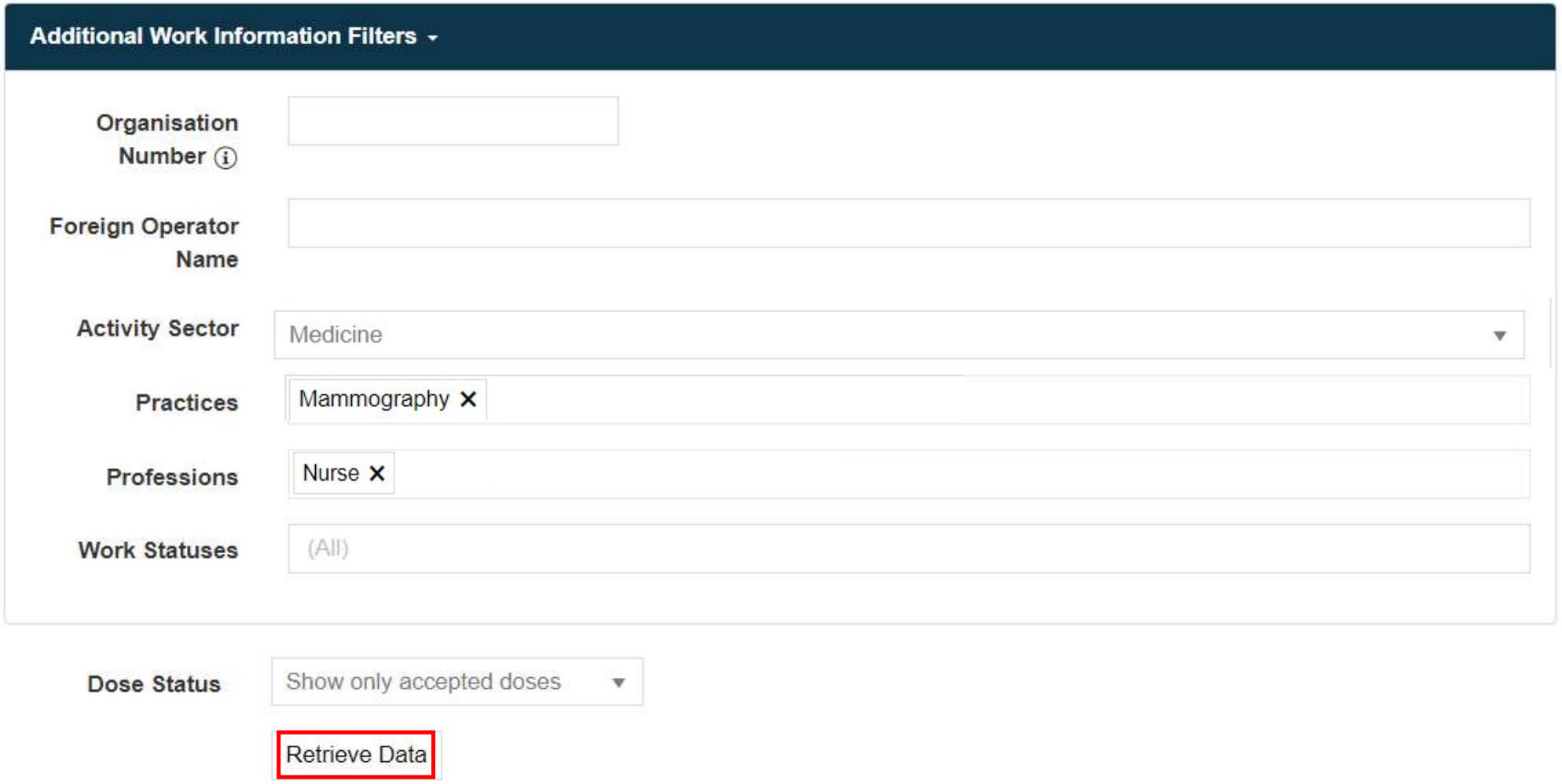
Organisation Number
Foreign Operator Name
Activity Sector
(All)
Practices
Professions
Work Statuses
Dose Status
Defense
Higher Education And Research Other Than Nuclear
Industry
Medicine
Natural
Nuclear
Other
Retrieve Data


Additional Work Information Filters
Organisation Number
Foreign Operator Name
Activity Sector
Medicine
Practices
(All - select Activity Sector to activate this list)
Professions
Work Statuses
Dose Status
Conventional RX-diagnostic
Mammography
CT
Interventional & surgical radiology (cardiology, neurology, vascular, orthopedic, urology, …)
Diagnostics nuclear medicine
Mixed modalities (PET-CT, …)
Radiotherapy


Additional Work Information Filters
Organisation Number
Foreign Operator Name
Activity Sector
Medicine
Practices
Mammography
Professions
(All - select Activity Sector to activate this list)
Work Statuses
Physician
Nurse
Technologist
Radio-pharmacist
Medical physics expert
Dosimetrist
Clinical biologist
Dose Status


Additional Work Information Filters
Organisation Number
Foreign Operator Name
Activity Sector
Medicine
Practices
Mammography
Professions
Nurse
Work Statuses
(All)
Dose Status
Show only accepted doses
Retrieve Data

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Export currently filtered data to Excel

Dose Id	Worker Identifier	First Name	Last Name	Begin Date	End Date	Dose Type	Value (mSv)	Employer Identifier	Operator Identifier
				01/01/2022 00:00:00	31/01/2022 23:59:59	HP10	0		
				01/01/2022 00:00:00	31/01/2022 23:59:59	HP007_SKIN	0		
				01/02/2022 00:00:00	28/02/2022 23:59:59	HP10	0		
				01/02/2022 00:00:00	28/02/2022 23:59:59	HP007_SKIN	0		
				01/03/2022 00:00:00	31/03/2022 23:59:59	HP10	0		
				01/03/2022 00:00:00	31/03/2022 23:59:59	HP007_SKIN	0		
				01/04/2022 00:00:00	30/04/2022 23:59:59	HP10	0		
				01/04/2022 00:00:00	30/04/2022 23:59:59	HP007_SKIN	0		
				01/05/2022 00:00:00	31/05/2022 23:59:59	HP007_SKIN	0		
				01/05/2022 00:00:00	31/05/2022 23:59:59	HP10	0		
				01/06/2022 00:00:00	30/06/2022 23:59:59	HP10	0		
				01/06/2022 00:00:00	30/06/2022 23:59:59	HP007_SKIN	0		
				01/07/2022 00:00:00	31/07/2022 23:59:59	HP007_SKIN	0		

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National Dose Register | Data | Help | Log off | EN

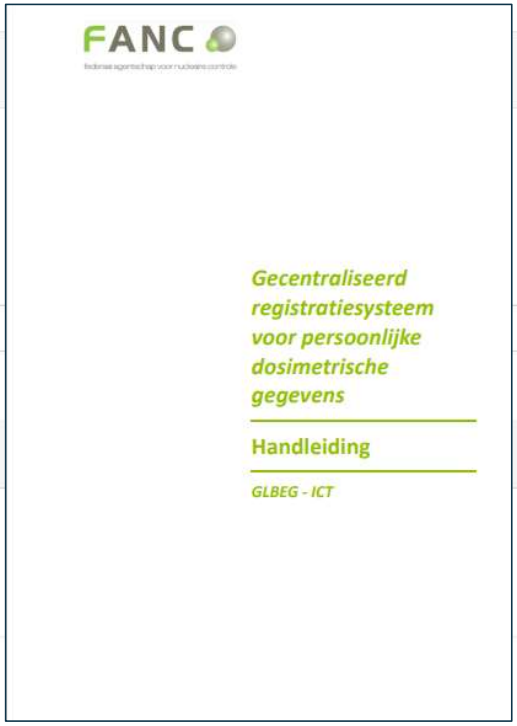
Help

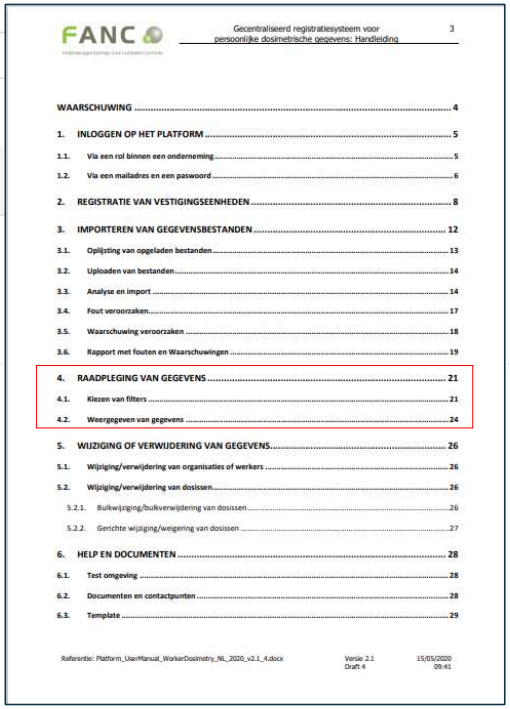
Download desired files

	Title	Description
Download	DXP_NDR_UserManual_WorkerDosimetry_NL_2020_v2.1_4.pdf	Nederlandstalige gebruikershandleiding
Download	DXP_NDR_UserManual_WorkerDosimetry_FR_2020_v2.1_4.pdf	Manuel d'utilisation en français

Email support

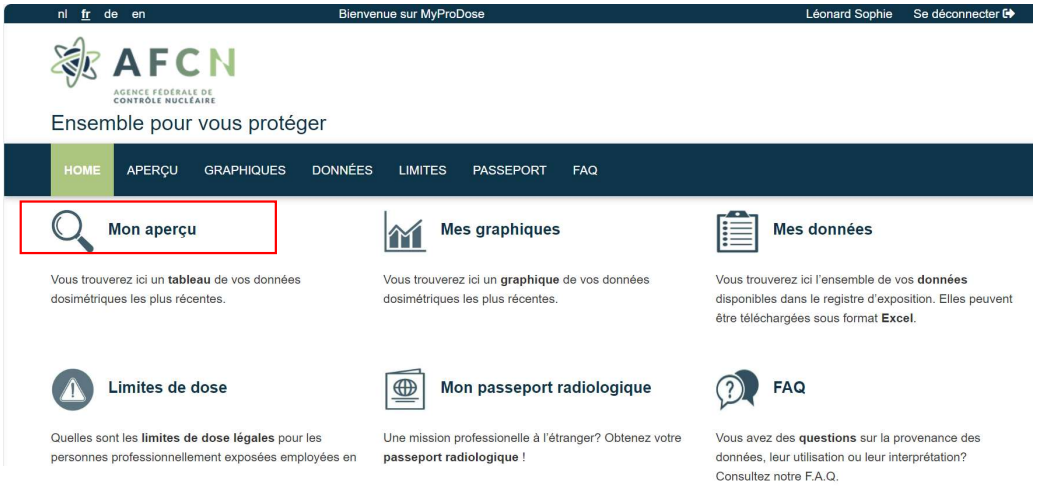
If you require functional or technical assistance regarding the application, please send your enquiry to workerdose@fanc.fgov.be

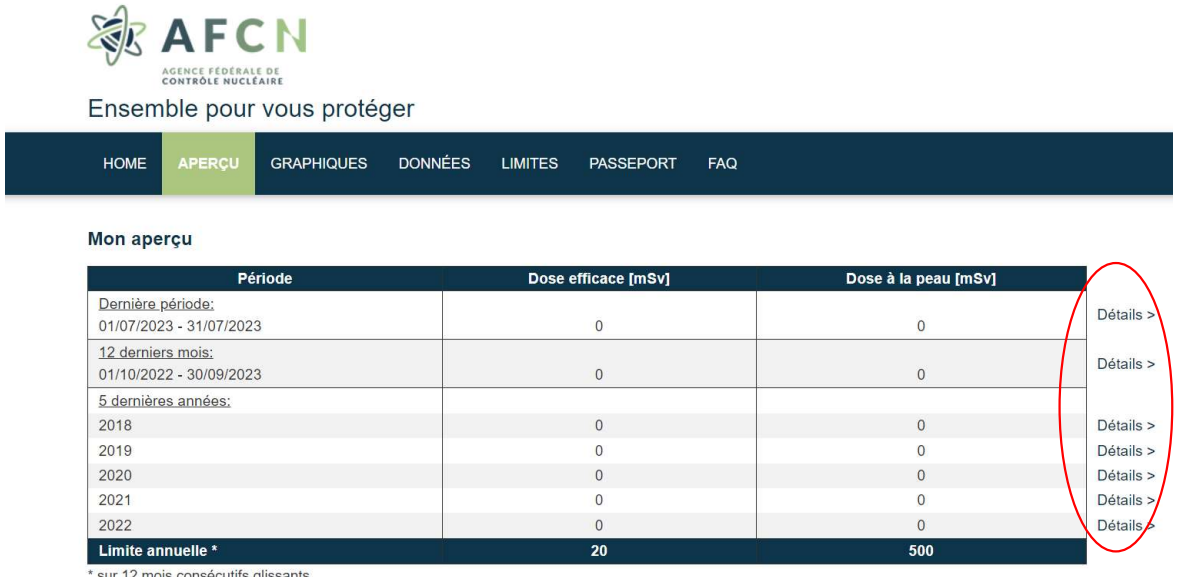




Any exposed worker can access his/her own doses in the exposure register

- https://myprodose.afcn.be





Workerdose@fanc.fgov.be

Registre d'exposition | AFCN - Agence fédérale de Contrôle nucléaire (fgov.be)