

**What's changing from a
regulatory perspective for
occupational physicians
&
News about the national dose
register (NDR)**

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What's changing from a regulatory perspective for occupational physicians?



Recent publications

- **RD-BSS of 20/07/2020:** modifications to the RD 20/07/2001 (ARBIS/RGPRI) and partial transposition of the Council Directive 2013/59/Euratom ("New BSS")
- **RD NDR & radiological passport of 20/07/2020:** form, content and restrictions and modalities for the access and use of the exposure register and the radiological passport and modifications to the RD 20/07/2001



<https://www.jurion.fanc.fgov.be>

Relevant topics for occupational physicians

- Health surveillance
- Protection of outside workers
- NDR and radiological passport
- Individual dosimetric surveillance
- Approval of occupational physicians



Health surveillance

Art 24 of RD 20/07/2001 (RD-BSS)



Tasks of the approved occupational physician

RP risks analysis

RP training programs for workers

Protection means

Individual dose monitoring means

Management the IR exposures of workers

Complementarity & expected collaboration with the health physics department (DFC/SCP) and radiation protection expert (RPE)

➤ Advice/contribution from a health perspective

➤ Evaluation + interpretation of doses & contaminations from a health perspective

➤ Prior review and approval of exposures under special circumstances

➤ Record doses + relevant info in medical file

➤ Continue dose surveillance → rapid reaction if needed

➤ If accidental exposure → evaluation of the health impact+ advice on the medical care if required

Relevant information to be transmitted by health physics department
art 23.1.7 RD 20/07/2001 (RD NDR and radiological passport)

Health surveillance

Art 24 of RD 20/07/2001 (RD-BSS)

Radiological emergency situations/ Natural radiation sources

- Possible to delegate to non approved occupational physicians if under the supervision of an approved occupational physician
- Aim : free up the necessary HR given the limited number of approved physicians



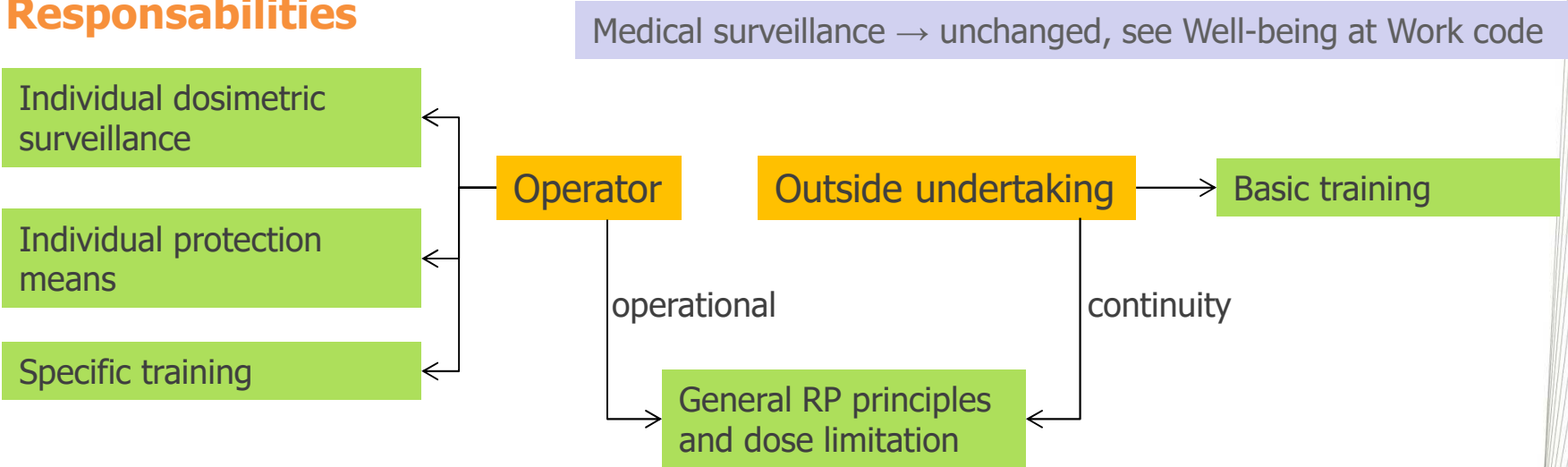
NORM



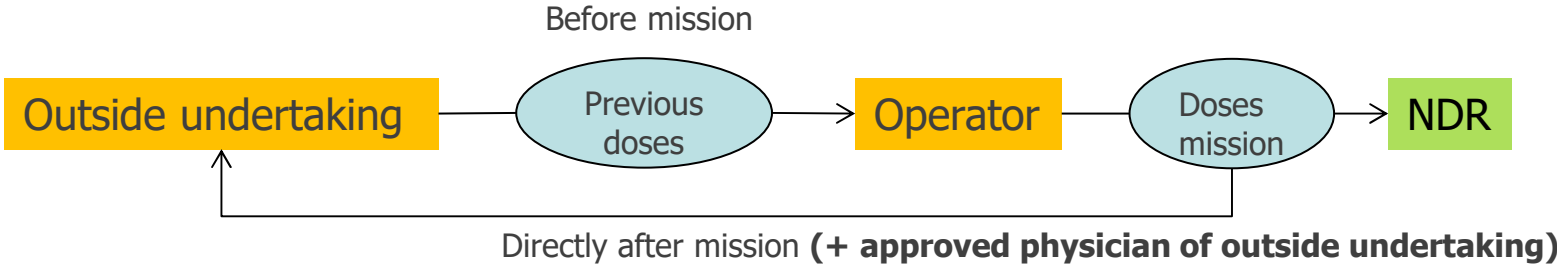
Protection of outside workers

General framework: Art 37 quater & quinquies of RD 20/07/2001 (RD-BSS)

➤ Responsibilities



➤ Communication of doses



Protection of outside workers

Art 37 sexies
of RD20/07/2001 (RD-BSS)

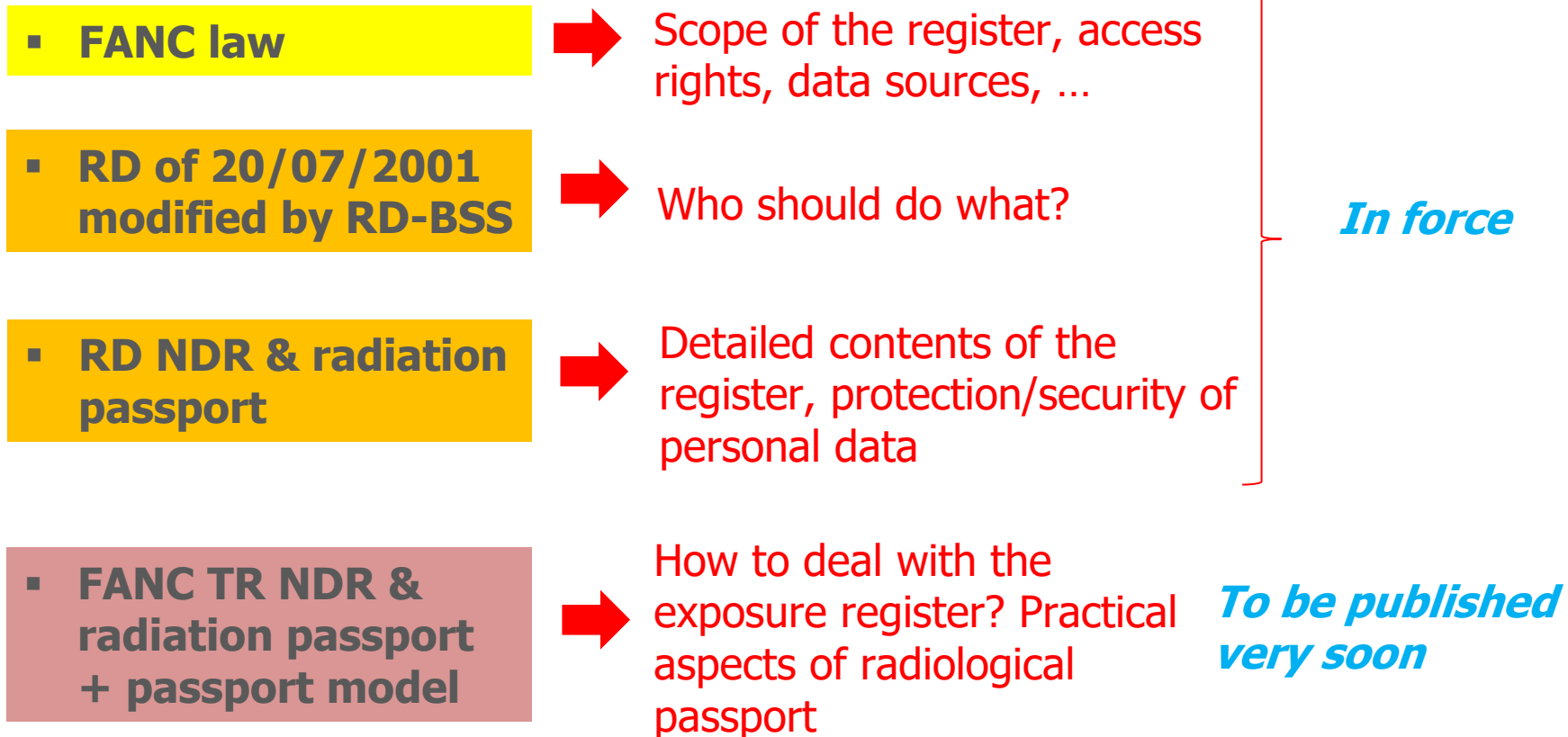
Special or exceptional situations:

- Outside undertaking active on a **continuous or recurring basis** for an operator (eg: maintenance firm of IR emitting devices)
- Outside undertaking has its **own health physics department** (DFC/SCP)
- **Rescue service** acting in emergency situation
- **Control/inspection bodies** (FANC, Bel V, approved bodies, etc.) can take care of one or more aspects of the RP normally dedicated to the operator
- Outside undertaking that **sends its workers on mission abroad** is responsible for all aspects of their RP (agreement with the foreign company + use of radiological passport)

can, in **agreement with the operator**, ensure one or more aspects of the RP normally dedicated to the operator (signed agreement)

NDR & radiological passport

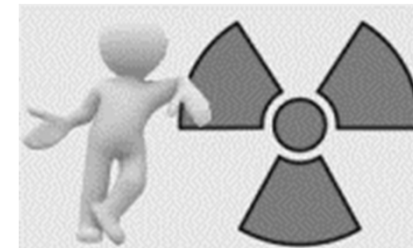
Structure of the regulatory framework



Roles & responsibilities for dose transfers to NDR

Art 30.6.4 of RD 20/07/2001 (RD-BSS)

- The **operator** is responsible for the dose transfer to the NDR:
 - Up to now: 1 time/year
 - from the date of entry into force of the FANC TR "NDR & radiological passport", the transfer frequency will gradually increase and **reaches the monitoring frequency after 3 years** (from march 2023)
- Transfers under supervision of the **radiation protection expert (RPE)** (by default, of the prevention advisor).



Radiological passport

RD NDR & radiological passport, chapter III
FANC TR (published soon), art 7, passport model in annex



The image shows a template for a radiological passport. At the top left is the flag of the European Union, and at the top right is the flag of Belgium. Below the flags is a rectangular box containing the following text:
Radiation worker
[First Name]
[Last Name]
[National number of the worker]

Below this box, the text reads:
RADIATION DOCUMENT
BELGIUM

At the bottom, there are three lines of text:
Issuing date [issuing date]
Issuing number [issuing number]
Valid until [issuing date + one calendar year]

Aim: continuity of dosimetric monitoring exclusively for missions abroad

Form: individual document (in electronic printable format)

Content:

- Before the mission:
 - ✓ Identification of the outside undertaking
 - ✓ Identification of the worker
 - ✓ Dose history
- After the mission:
 - ✓ Identification of the foreign company
 - ✓ Period of the mission
 - ✓ Doses received during the mission

Radiological passport

RD NDR & radiological passport, chapter III
FANC TR (published soon), art 7, passport model in annex

Validity period : 1 year after issuing date

Operation and use:

- Before the mission(s):
 - The employer introduces a request to FANC 30 days before the date of the 1st mission that is supposed to be covered by the passport -> workerdose@fanc.fgov.be
 - A passport pre-filled by the FANC is issued and transferred to the employer;
 - The employer (completes it and) sends it to the foreign company
- After the mission:
 - The foreign company completes the passport and returns it to the employer

Individual dosimetric surveillance (IDS)

- Transposition of the BSS limit for the lens of the eye in articles 20.1.3 et 20.1.5 of the RD 20/07/2001 (RD-BSS):
 - Workers: ~~150mSv/year~~ → 20mSv/year
 - Students/apprentices (16-18): ~~50mSv/year~~ → 15mSv/year
- In-depth review of art 30.6 of RD 20/07/2001 (RD BSS) with complete restructuring.
- Most of the new provisions relevant for you are in section 30.6.4 concerning the individual dosimetric surveillance program -> **entry into force shifted to 01/09/2021!**
- To be published soon: **FANC TR criteria for the approval of services carrying out radiotoxicological analyses**

Individual dosimetric surveillance (IDS) program

IDS program (external/internal exposure) established by RPE in consultation with approved occupational physician according to RP risk analysis

➤ **External exposure** (new provisions):

- Program must be based on **RP 160** document of the EC "*Technical Recommendations for Monitoring Individuals Occupationally Exposed to External Radiation*"
- **Choice of dosimeter** and **duration of monitoring period** according to the characteristics of the workstation and circumstances of exposure.
- **If lead apron + possibility $E > 6\text{mSv/year}$: 1** dosimeter under the lead apron (chest) + 2nd above the lead apron (collar/chest) and use:

$$E = H_p(10)_{\text{under}} + 5\% H_p(10)_{\text{above}} \text{ (with thyroid protection)}$$

$$E = H_p(10)_{\text{under}} + 10\% H_p(10)_{\text{above}} \text{ (without thyroid protection)}$$

For $E > 15 \text{ mSv}$ → **Further study to estimate E**



Individual dosimetric surveillance (IDS) program

➤ *External exposure (new provisions):*

- **Lens of the eye, skin and extremities dosimetry :**
 - **ISO standard 15382** requirements should be followed
 - **Prior assessment:** can 3/10 of the limit be exceeded?
 - No → 1 reassessment/3 years
 - Yes (despite additional means of protection)
→ routine IDS
 - **Routine IDS of the lens of the eye:**
 - If possible, dosimeter :
 - ❖ as close to the eye as possible
 - ❖ behind the means of protection
 - ❖ oriented to the source of exposure
 - If not possible → correction factor
 - **Routine IDS of the extremities:** if the dosimeter not worn at the most exposed location → correction factor according to the distance between the dosimeter and this location



Individual dosimetric surveillance (IDS) program

➤ *Alternative methods:*

The estimate of the dose can be based on:

- ✓ individual measures for other workers exposed in similar circumstances
- ✓ workplace monitoring results
- ✓ calculation methods approved by the Agency

only when:

- *individual measurements (external exposure/radiotoxicological analyses) are impossible/inappropriate*
- *external exposure is exclusively due to beta emitters with energy lower than 200 keV*
- *for any other situation where the certified RPE in consultation with the approved occupational physician deems it necessary or more appropriate.*

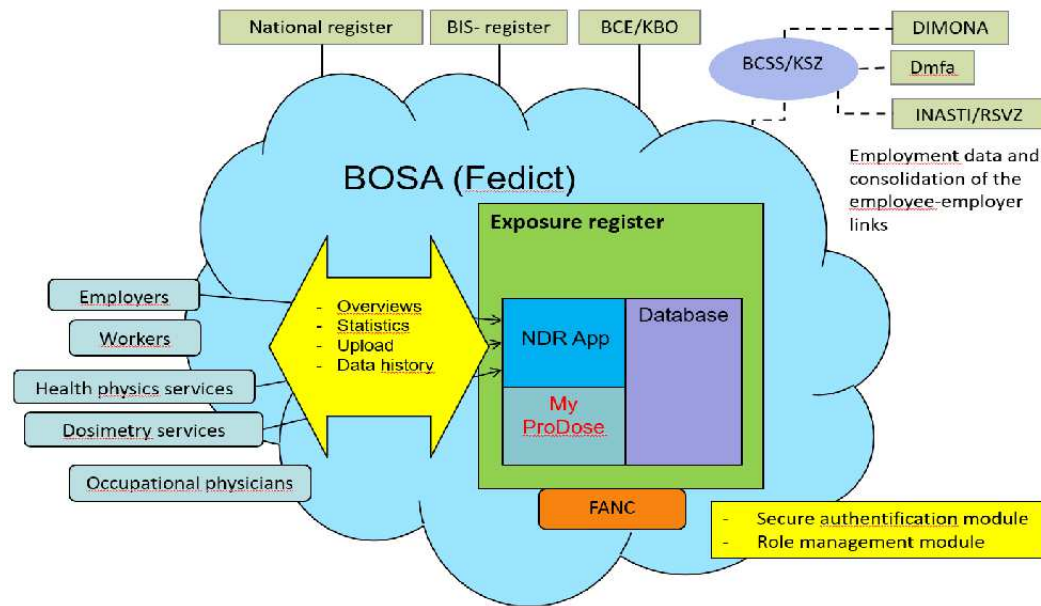
Approval of occupational physicians

- Adaptation of the regulatory framework according to the actual way of working since 2013:
 - the approval conditions (class II-III/class I) are now included as well as:
 - ✓ the basic and continuing training criteria
 - ✓ the internship criteria
 - the application modalities (new/extension) are now included
- Structure of these regulatory changes:
 - Amendments to **art 75 of the of RD 20/07/2001 (AR BSS)**
 - FANC TR drafting the activity report and fixing the criteria for continuous training (**to be published soon**)



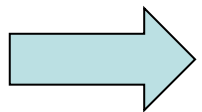
More graduated approach in a subsequent regulatory project

News about the national dose register (NDR)



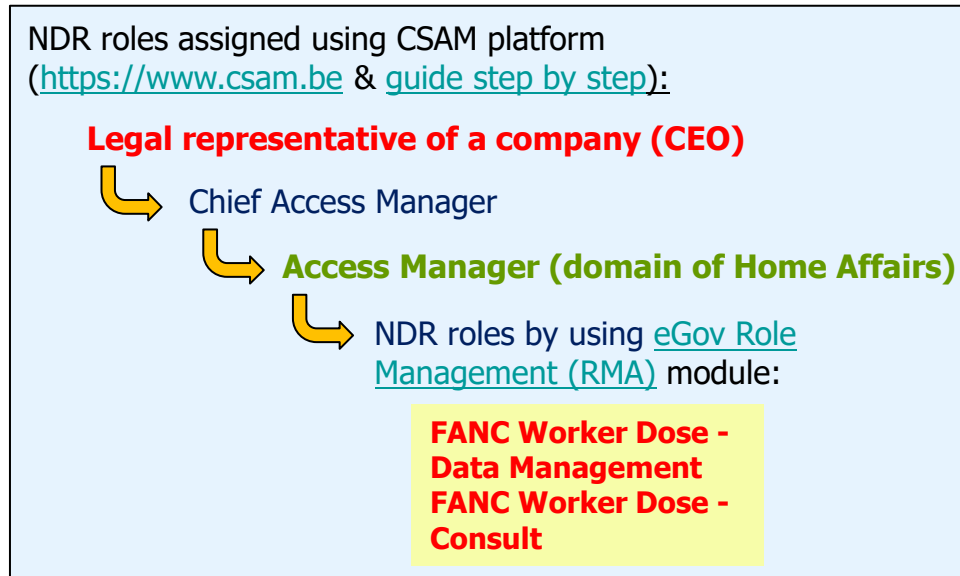
The new consultation interface

- Communicated in June 2020 occupational physicians and certified RPE's
- Call for feedback on the new interface and for suggestions of analysis/overview tools
- Some feedback and suggestions from the RPE's
- Very few feedback from occupational physicians



Some difficulties to get the roles and consequently to access and test the new interface

1st step to access NDR-app: get the **NDR roles** from the companies employing the workers that you follow



- ✓ Internal medical service
→ ask your own access manager (via HR/Accounting services)
- ✓ External medical service
→ ask your management to contact access managers of the client companies

Good organisational solution: the heads of the internal health physics departments (IDFC/SCPI) take on the role of access managers and assign the necessary roles to the approved occupational physicians and to the RPE's


-> Soon, FANC communication in that sense

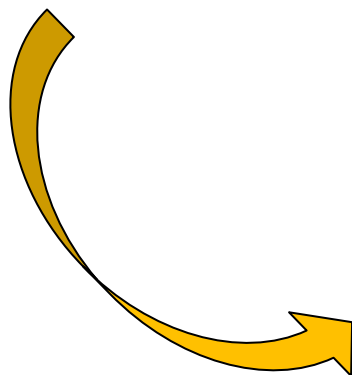
Data eXchange Platform

Connexion Partenaire AFCN

Veillez consulter le **guide d'accès** pour plus d'informations concernant les possibilités de connexion.

CSAM est la méthode de connexion principale. Utilisez le bouton ci-dessous pour vous connecter via CSAM.

 **CSAM** Se connecter



Once you have the NDR roles ...

<https://dxp.fanc.be>

 **CSAM**

Log on to online public services

Choose your digital key to log in

[Need help?](#)

Digital key(s) with eID or digital identity

 **LOG IN**
with eID card reader

 **LOG IN**
via itsme

[Create your itsme account](#)

Important to know!

Once you have logged in, you automatically have access via CSAM to other online government services secured with the same digital key. This applies as long as your browser window is active.

Bienvenue sur la plateforme d'échange de données AFCN

Info: Les modules auxquels vous n'avez pas accès sont grisés. Vous pouvez consulter les rôles actuels de votre organisation en cliquant sur votre nom dans la partie droite de la barre de menus. Consultez le [guide d'accès](#) pour plus d'informations sur la façon d'obtenir des rôles adéquats.

La plateforme DXP AFCN est subdivisée en différentes applications (modules). Veuillez choisir un module ci-dessous ou dans la barre de menu.

NDR

Registre National d'Exposition

EDWD

Directive Eau de Boisson

PHI

Inventaire Physique

TRAC7

Transport Classe 7

- Submission
- Consult**

National Dose Register

Please choose your desired action from the menu bar

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[Privacy Declaration](#)

Build: 2020.254.1



Consult Dose Records

Filter Criteria

Enterprise (All) ▼



Business Unit (All) ▼

Data File (All)

Dose Id ⓘ

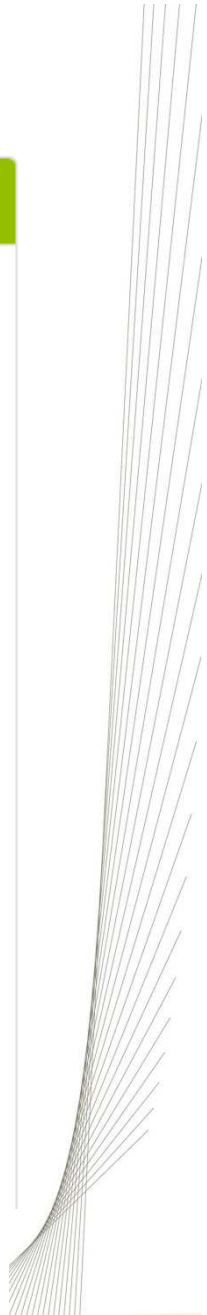
Worker NR Number

Worker Name

Dose Period Between  and 

Dose Sub Type (All)

Dose Value (mSv) Between and



Consult Dose Records

Filter Criteria

Enterprise (All) ▼



Business Unit (All) ▼

Data File (All)

Dose Id ⓘ

Worker NR Number

Worker Name

Dose Period Between  and 

Dose Sub Type (All)

Dose Value (mSv) Between and

Consult Dose Records

Filter Criteria

Enterprise (All) ▼



Business Unit (All) ▼

Data File (All)

Dose Id ⓘ

Worker NR Number

Worker Name

Dose Period Between  and 

Dose Sub Type (All)

Dose Value (mSv) Between and

Consult Dose Records

Filter Criteria

Enterprise

(All) ▼

Business Unit

(All) ▼

Data File

(All)

Dose Id ⓘ

Worker NR
Number

Worker Name

Dose Period

Between

and

Dose Sub Type

(All)

Dose Value
(mSv)

- HP10
- E_CALC
- E50
- HP007_SKIN
- HP007_EXTREMITY
- HP3_LENS
- HTCALC_SKIN
- HTCALC_EXTREMITY

Consult Dose Records

Filter Criteria

Enterprise (All) ▼



Business Unit (All) ▼

Data File (All)

Dose Id ⓘ

Worker NR Number

Worker Name

Dose Period Between  and 

Dose Sub Type (All)

Dose Value (mSv) Between and

Additional Dose Information Filters ▾

Types

(All)

Extremities

**Radiation
Types**

(All)

Codes

With Comment Only

Additional Dose Information Filters ▾

Types

Extremities

**Radiation
Types**

Codes

With Comment Only

Additional Dose Information Filters ▾

Types

(All)

Extremities

Radiation
Types

Codes

Hand

Forearm

Foot

Ankle

Hand_Left

Hand_Right

Forearm_Left

Additional Dose Information Filters ▾

Types	(All)
Extremities	(All)
Radiation Types	(All)
Codes	
	Admin
	Aircrew
	Corr
	DD
	Other

Additional Work Information Filters ▾

Organisation



**Activity
Sector**

Practices

(All - select Activity Sector to activate this list)

Professions

(All - select Activity Sector to activate this list)

**Work
Statuses**

(All)

Additional Work Information Filters ▾

Organisation



Activity Sector

Practices

Professions

Work Statuses

Activity Sector dropdown menu:

- Defense
- Higher Education And Research Other Than Nuclear
- Industry
- Medicine
- Natural
- Nuclear
- Other

Additional Work Information Filters ▾

Organisation



Activity
Sector

Medicine ▾

Practices

Professions

Work
Statuses

Mammography

CT

Interventional & surgical radiology (cardiology, neurology, vascular, orthopedic, urology, ...)

Diagnostics nuclear medicine

Mixed modalities (PET-CT, ...)

Radiotherapy

Brachytherapy

Additional Work Information Filters ▾

Organisation

Activity Sector

Practices

Professions

Work Statuses

- Physician
- Nurse
- Technologist
- Radio-pharmacist
- Medical physics expert
- Dosimetrist
- Clinical biologist

Click on **Retrieve Data** to display the data corresponding to the selected filter(s)



	Dose Id	Worker Identifier	First Name	Last Name	Begin Date	End Date	Dose Type	Value (mSv)
<input checked="" type="checkbox"/>	2336101	87032323748	Thibault	Vanaudenhove	01/01/2014 00:00:00	31/12/2014 23:59:59	HP10	0
<input type="checkbox"/>	2336154	87032323748	Thibault	Vanaudenhove	01/01/2014 00:00:00	31/12/2014 23:59:59	HP007_SKIN	0
<input type="checkbox"/>	2336267	87032323748	Thibault	Vanaudenhove	01/01/2015 00:00:00	31/12/2015 23:59:59	HP10	0
<input type="checkbox"/>	2336297	87032323748	Thibault	Vanaudenhove	01/01/2015	31/12/2015	HP007_SKIN	0

FANC website: section «Dose register»

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NL FR 



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ACCUEIL L'AFCN DOSSIERS SITUATIONS D'URGENCE

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Protection des travailleurs >

Obligations des exploitants >

Médecins du travail agréés >

Services agréés de dosimétrie externe >

Registre d'exposition >

Protection des travailleurs

- [Obligations des exploitants](#)
- [Médecins du travail agréés](#)
- [Services agréés de dosimétrie externe](#)
- [Registre d'exposition](#)

<https://afcn.fgov.be/fr/professionnels/protection-des-travailleurs/registre-dexposition>

Modaliteiten voor het gebruik van het blootstellingsregister

- ^ Toegang tot het blootstellingsregister
- ^ Gebruik van de applicatie National Dose Register (NDR) en opmaak van de dosisbestanden
- ^ Uw feedback als professioneel gebruiker van de NDR-applicatie



Modaliteiten voor het gebruik van het blootstellingsregister

∨ Toegang tot het blootstellingsregister

Professionals hebben toegang tot het blootstellingsregister voor het raadplegen of overdragen van doses via de applicatie **National Dose Register (NDR)**. De toegang tot de NDR-applicatie, via de link <https://dyp.fanc.be> op het FANC Data eXchange Platform, is beveiligd via het CSAM-authenticatiesysteem.

Personen die een rol moeten vervullen op het gebied van de personeelsdosimetrie van een organisatie (bv. erkend geneesheer, deskundige erkend in de fysische controle, agent voor de stralingsbescherming, preventieadviseur, enz.) en hiervoor over toegangs- en andere rechten binnen de NDR-applicatie moeten kunnen beschikken, moeten hiervoor vooraf door de wettelijke vertegenwoordiger van de organisatie zijn aangeduid, waarbij hen tevens de vereiste rollen, overeenkomstig de toegangsrechten bepaald in artikel 25/7 van de FANC-wet van 15 april 1994, werden toegekend. De procedure voor het verlenen van de toegang en het toekennen van de rollen wordt beschreven in de [Acces Guide](#) die op het FANC Data eXchange Platform kan worden geraadpleegd.

Werknemers kunnen hun doses via de beveiligde applicatie (CSAM) **MyProDose** raadplegen op de volgende link: <https://myprodose.afcn.be>

∧ Gebruik van de applicatie National Dose Register (NDR) en opmaak van de dosisbestanden

∧ Uw feedback als professioneel gebruiker van de NDR-applicatie

Modalités d'utilisation du registre d'exposition

^ Accès au registre d'exposition

∨ Utilisation de l'application National Dose Register (NDR) et constitution des fichiers de doses

Les modalités d'utilisation de l'application NDR se trouvent dans le **manuel d'utilisation**.

Les fichiers dosimétriques doivent être constitués selon le format, la structure et les règles que l'Agence a établis à cet effet. Nous vous invitons à consulter la **documentation relative à la constitution des fichiers**.

Vous y trouverez :

- un document explicatif sur la structure des données d'échange ;
- des documents techniques relatifs à la structure XSD des données ;
- la liste des codes et valeurs de champs devant être utilisés ;
- un template Excel.

^ Votre feedback en tant d'utilisateur professionnel de l'application NDR

AFCN
Autorité Française de Contrôle du Nucléaire

*Systeme centralisé
d'enregistrement de
donnees
dosimetriques
personnelles*

Manuel d'utilisation

GLBEG - ICT

Modaliteiten voor het gebruik van het blootstellingsregister

^ Toegang tot het blootstellingsregister

^ Gebruik van de applicatie National Dose Register (NDR) en opmaak van de dosisbestanden

∨ Uw feedback als professioneel gebruiker van de NDR-applicatie

Sinds 19 mei is er een nieuwe **interface voor gegevensconsultatie** beschikbaar in de NDR-applicatie. U kan er alvast er vertrouwd mee raken. De interface is vrij intuïtief, maar indien nodig vindt u alle instructies voor het gebruik ervan in de **gebruikershandleiding**.

U kan ons uw gebruikersfeedback over deze nieuwe interface sturen via het onderstaande feedbackformulier.

We zijn ook van plan om in deze interface enkele **analyse- en overzichttools** te implementeren die voldoen aan de behoeften van gebruikers. Daarom kan u ook uw suggesties op dat vlak doorgeven via hetzelfde feedbackformulier.

FEEDBACK OVER RAADPLEGINGSINTERFACE EN SUGGESTIES ANALYSE- EN OVERZICHTTOOLS

Het formulier kan tot 15 juli worden ingevuld.

Thank you for your attention

