



**Forensic
Capability
Network**
Shaping forensics, together.

SARC Elimination Database Guidance



30/01/2025

Issue No: 1.0 | Document Ref: FCN-SAR-GUI-0034

Table of Contents

1	Overview	3
1.1	Background	3
1.2	Definitions	3
1.3	Abbreviations	4
2	Recommendations and Guidance	7
2.1	Approach	7
2.2	SED and Environmental Monitoring	7
2.3	CED and casework	7
2.4	Managing potential contamination of visitors and contractors	8
2.5	General Recommendations	9
3	Staff Information	12
3.1	Background	12
3.2	SED	16
3.3	CED	18
3.4	Contractors and visitors	20
3.5	Data retention and information Assurance	21
3.6	Matches and Investigation	23
4	Acknowledgements, References and Appendix	27
4.1	Acknowledgements	27
4.2	References	27
4.3	Appendix – Risk assessment and checklist for implementation	27



**Forensic
Capability
Network**
Shaping forensics, together.

1 Overview

- 1.1 Background
- 1.2 Definitions
- 1.3 Abbreviations

1 Overview

1.1 BACKGROUND

The process for creating and managing a staff elimination database poses certain challenges and concerns for the sexual assault referral centre (SARC) community. It is an essential part of the Forensic Science Regulator (FSR) Code compliance and is required to identify, manage and investigate contamination events within the SARC environment. Challenges include obtaining staff samples and ensuring management and an easy elimination process across different forces and forensic service providers (FSPs). To achieve this, a working group was created by the Forensic Capability Network (FCN) with members from the FSPs, the Office of FSR, Forensic Information Database Service (FINDS) and the SARC and Police communities. This group worked collaboratively to identify gaps, mitigate risks and overcome the obstacles. The output from this group includes this document which serves to:

- Provide guidance and recommendations for how SARCs will set up and manage the elimination databases. It also provides rationale behind the approach and considerations for SARCs when making decisions regarding it.
- Assist with the onboarding of SARCs to the FINDS Centralised DNA Contamination Elimination Database (CED) and offer an understanding of its current limitations.
- Empower SARCs with the knowledge and confidence to facilitate these changes within their own organisation.

1.2 DEFINITIONS

PHRASE	DEFINITION
Crime stain	A DNA profile (either full, partial or mixed) derived from a sample that has been recovered from a sample taken in relation to a crime.
DNA Elimination sample	A DNA sample taken for the purposes of eliminating an individual.
DNA PACE sample	A DNA sample taken under the Police and Criminal Evidence Act (PACE) upon arrest, for any recordable offence for the purposes of the detection, investigation, prosecution and prevention of crime where the resulting data is intended to be loaded or searched on the NDNAD.
Speculative Search	<p>The term 'speculative search' describes the action of searching a DNA profile against a DNA database, with there being no actual retention on the database for the searched profile.</p> <p>For CED purposes, this relates to the 'purge', where there is comparison of an individual CED DNA profile against a crime sample extract from the NDNAD.</p>
Purge	A one-off search of a staff elimination profile against an extract of all unsolved/unmatched crime sample profiles contained on the NDNAD for the purposes of removing contamination. This is required for staff who have

PHRASE	DEFINTION
	been in a role of high risk to DNA evidential chain when previously there was no mechanism to eliminate them as a contamination contributor of a casework profile.
Prüm	The Prüm Convention is a law enforcement treaty open to all members of the EU to allow exchange of data regarding DNA, fingerprints and vehicle registration details of concerned persons and was created to cooperate against terrorism. Data held on the NDNAD and IDENT1 (fingerprints) fall under the Prüm exchange. There is a risk to staff that their DNA could be shared as an outstanding crime held on the NDNAD unless it is removed via the purge process and ongoing mechanism to remove contamination profiles.

1.3 ABBREVIATIONS

ABBREVIATIONS	MEANING
CED	Centralised DNA Contamination Elimination Database
CJS	Criminal Justice System
FCN	Forensic Capability Network
FINDS	Forensic Information Databases Service
FHP	Forensic Healthcare Practitioner
FSP	Forensic Service Provider
FSR	Forensic Science Regulator
HEPA	High efficiency particulate air
NDNAD	National DNA Database
NPCC	National Police Chiefs' Council

ABBREVIATIONS	MEANING
OFSR	The Office of the Forensic Science Regulator
PACE	Police and Criminal Evidence Act 1984
SARC	Sexual Assault Referral Centre
SED	Staff Elimination Database
URN	Unique reference number



**Forensic
Capability
Network**
Shaping forensics, together.

2 Recommendations and Guidance

- 2.1 Approach
- 2.2 SED and environmental monitoring
- 2.3 CED and casework
- 2.4 Managing potential contamination from visitors or contractors
- 2.5 General recommendations

2 Recommendations and Guidance

2.1 APPROACH

The current recommendation is that SARCs pursue the route of managing contamination events by both CED and a Staff Elimination Database (SED).

This is to ensure a holistic approach to identifying contamination within both the SARC environment and casework, whilst minimising the number of databases on which staff profiles are held.

- Environmental Monitoring Contamination – Identified using a local SED held by FSP.
- Casework Contamination – Identified using the CED held by FINDS.

2.2 SED AND ENVIRONMENTAL MONITORING

It is recommended that SED is used with your chosen FSP to manage identification of contamination through environmental monitoring (EM).

This is because currently the CED lacks the capability to complete localised searches or searching within more complicated results, such as mixtures. In order to compare an organisation's EM results to CED, the capability of localised searching would need to be in place. Similarly, results generated from EM samples are lower level and FSPs are currently better placed to match partial DNA results.

SARCs will need to include within their staff agreement and elimination profile information, that when the limitations of the CED (discussed in [section 2.5](#)) are rectified, their data held within the SED will be deleted as the long-term goal is that all possible contamination is checked using the CED and that individuals' DNA profiles only need to be stored and maintained on one database. SARCs should also include within the information and agreements supplied to staff, the details of how the profile will be searched to identify contamination. This is because the way that FSPs search results against profiles that are held on their customer SEDs appear to differ. Please also bear in mind that if the SARC takes the decision to join their force SED for the purposes of monitoring EM that searches within the FSP against a force SED is likely to include their DNA profile being searched against all DNA results generated from the crime samples of that force and will not be limited to solely the SARC EM samples.

The SARC will need to include within their process a robust and efficient but sensitive and discreet approach to how they investigate contamination incidents from their SARC environmental samples. This must include risk assessments of potential impact on any casework and notification to any forces whose cases may have been impacted. This will also need to include annotation or updates to any self-referral cases whose samples may have been impacted.

2.3 CED AND CASEWORK

It is recommended that CED is used to manage contamination risk to casework.

As this is a national database, it is more suited to casework and staff that cross multiple police force regions without needing to be on each Force SED. It is also not subject to force FSP tenders or workload management that may change and move to different FSPs over time.

It is recommended to make contact with FINDS as soon as possible to instigate the process.

The process to onboard staff profiles onto the CED cannot happen before a Memorandum of Understanding (ref. FINDS-P-079, available by contacting FINDS_Quality_Management@homeoffice.pnn.police.uk) has been signed and this often takes time to reach the right level of authority before being approved.

SARCs should include the option for a staff member to agree for their profile to have a 'one-off' search (or 'purge') completed against the National DNA Database (NDNAD). This is recommended to staff who have held positions that pose a high risk of contamination and may have had their profiles uploaded from an evidential sample, prior to elimination mechanisms being in place. This means that the crime sample can be identified as contamination and removed. With new contracts it is recommended that this 'one off' search forms part of the 'Terms of Employment'.

The SARC will need to include within their process a robust and efficient but sensitive and discreet approach to how they investigate contamination incidents originating from casework (i.e. matches to a staff profile on the CED). This must include liaison with the police force who owns the crime sample and should be a collaborative investigation to avoid wasted resource or possible investigative leads being actioned before a full investigation can be completed, for example, to check possible contamination by contractors or visitors of the SARC during that period. The SARC need to also have a process for contacting SARCs where their staff were formerly employed as casework from examinations completed during a staff's career could be processed years after the staff member moved organisations.

It is recommended that the investigative process into any matches from the CED also allow for liaising with other SARC organisations to allow for staff who may move organisations during their career.

Notification of a change in organisation for a staff member must be made by the organisation who currently holds the elimination profile data using the FINDS-F-142 form for CED Amendments. It is suggested that this is included in the organisation staff exit process and that the barcode associated to the individual is shared with the new employer.

As part of the FINDS CED onboarding, the SARCs are required to supply a 'single point of contact' (SPOC) for any match reports to be sent. This needs to be kept up to date and is compiled along with force SPOCs and will be distributed to forces and SARCs every quarter to allow ease of contact for any contamination investigations.

2.4 MANAGING POTENTIAL CONTAMINATION OF VISITORS AND CONTRACTORS

It is recognised that contamination may occur from visitors or contractors when they attend the site despite robust anticontamination measures being in place. Current best practice in DNA laboratories is to obtain a sample from contractors before they enter the facility, however, depending on frequency of visits and where and what maintenance is being completed, this may not always be proportionate or appropriate for SARCs.

It is recommended that the SARC employ a risk-based approach in the decision on how visitors and contractors are managed which could include:

- Take and hold a reference sample for visitors or contractors
- Take contact details in order to request a reference sample (when required)
- Request an elimination database sample to be included and managed as per the SARC staff profiles.

The SARC should employ additional mitigations for potential contamination from external visitors including ensuring PPE is worn in DNA clean areas during the visit and completing a clean after any contractor or maintenance has been completed in the Forensic Examination Room, prior to any more examinations taking place. Provided that all additional contamination mitigations are in place and robust records of area access are kept, the risk of contamination entering the Criminal Justice System (CJS) is low, but not eradicated.

Where appropriate, it is recommended that for visitors and contractors, contact details are taken with the understanding that a reference sample may be requested at a later date (up to 24 months after their visit)

However, there may be occasions or individuals where it is more appropriate to manage them using the SED. For example, with regular contractors such as external cleaners who frequently enter the forensic area unattended.

To understand the best approach for managing contractors and other regular visitors, it is recommended that a risk assessment is utilised to evaluate what they have access to, how often, and the risk that contamination from them may pose to evidential material.

It is recommended that companies who perform critical maintenance, such as forensic cleaning services, have their staff profiles on the SED and CED.

Due to their frequency and access to custody and the forensic areas in SARC, forensic cleaning employees should be managed as per SARC staff who pose a similar risk to the DNA evidential chain. This means their inclusion on the local SED and the CED. It is suggested that whether these individuals already exist on the CED is established and any such requirements should be built into the SARC or Force service level agreements.

When completing a risk-based approach on contractors and visitors it is recommended that other individuals who perform other critical maintenance such as airflow maintenance (i.e. HEPA filter replacement and air conditioning units) are considered for potential SED and CED candidates, if appropriate.

2.5 GENERAL RECOMMENDATIONS

It is recommended that prior to mandating staff to provide a sample for elimination purposes, the SARC consults with the current staff and their human resources (HR) department.

If existing staff are happy to volunteer a sample, then there does not need to be a change in contract initiated. It is recommended that any new starters to the organisation have their contracts reflect the requirement for sample submission as a condition of employment. If discussions with staff indicate that a change in contract may need to occur, then follow the process with HR department and also identify roles of low risk to the DNA evidential chain where current staff who are reluctant to submit a sample for elimination purposes may be able to be moved to.

Two samples are likely to be required from each staff member – one for [SED](#) and one for [CED](#). These involve two different kits and are both available from Scenesafe. It is advised that the SARCs check with their chosen FSP prior to purchasing kits to discuss if a CED kit can be used to obtain both SED and CED samples for uploading to the local Sed and FINDS CED.

The SARCs will need to have a process to manage the names associated with the elimination profile samples as these are submitted to FINDS (for CED) and the FSPs (for SED) anonymised. This needs to include the initial agreement and management of new starters and leavers. A retention period of the staff profile needs to be in line with case work and national guidelines.

The recommended retention period for SARC staff profiles is 24 months after the staff member completes their final case for the organisation.

The process needs to be robust enough to allow a staff removal as soon as practically possible after the agreed retention period has passed. The FCN has a template spreadsheet for managing staff details and elimination databases available for SARCs and forces to use, if required (FCN-SAR-GUI-0035b).



Attachment 1: SARC Elimination Database Management

Please note that the point at which you inform FINDS or your FSP may differ depending on whether the employee is changing organisations or leaving the profession.

- FINDS:
 - **If transferring** to a new organisation in a similar high-risk role – ensure staff DNA profile CED data is transferred to new organisation.
 - **If leaving the profession** - inform FINDS 24 months after staff member has left the organisation.
- FSP - inform 24 months after the staff member has left the organisation for removal from SED.

It is recommended that SARCs have an understanding of how their chosen FSP will meet the requirements of the FSR publication ‘DNA Contamination Detection – the management and use of staff elimination DNA databases’.

SARCs should have an understanding of whether their FSPs have gaps in their capabilities for the expected requirements of the FSR for contamination investigations and should understand the risk associated with them and any mitigating steps where possible.

Current limitations of the CED include:

- The ability to be searched before a crime sample profile is loaded to the NDNAD (called proactive searching)
- The ability to search under defined criteria, for example, only search a crime sample result against those from the submitting force and/or the SARC it originated (called localised searching)
- Search results containing mixed DNA profiles.

The CED limitations are acknowledged and currently under active consideration via the CED/SED Expert Network which reports to the NPCC DNA Operations group. There is currently no date for when the CED will have the required capabilities.

It is recommended that FSPs inform the SARCs that a profile has been completed and loaded to their SED, and not to send a copy of staff profile results to customers who are providing a SARC service.

The SARC do not have a practical need for the profile results and therefore would need to manage an additional piece of data that adds no value to their quality or service. This is also an added consideration for data protection of the staff and limits the number of individuals who have access to their profile, especially when it is not needed for use in the SARC.

This may be different if your SARC joins the police force SED for EM purposes. It is the SARC responsibility to ensure that staff are aware of all processors of their data and that the correct level of separation exists.

3 Staff information & FAQs

- 3.1 Background
- 3.2 SED
- 3.3 CED
- 3.4 Contractors and visitors
- 3.5 Data Retention and Information Assurance
- 3.6 Matches and investigations

3 Staff Information

3.1 BACKGROUND

What is DNA contamination?

DNA is everywhere from skin flakes, body fluid droplets (from blood, semen, sneezing) and contact transfer. The highly sensitive techniques used to analyse DNA within the forensic laboratories, means that tiny amounts of DNA are now able to be replicated and produce results. DNA can be present in any environment through direct or by secondary transfer contact during everyday activities. This means that not all DNA identified at a crime scene or in evidential samples is there through criminal activity. Contamination within the DNA evidential chain is any DNA inadvertently deposited, during the collection or analysis of the DNA evidence. Contamination can occur at any point during the process of a forensic examination despite best measures of anticontamination – any inadvertent contamination needs to be able to be eliminated so that only advantageous results are investigated. Below is an example of case-to-case contamination within a SARC.

Contamination?	
Real-life example	In 2015, two separate alleged sexual assault cases were 'linked' by DNA. The accused man in case A was linked to the sample taken in case B, even though the suspect in case B was already known to be a different individual. The cases were being investigated by two different police forces and the forensic laboratory was not a common factor. The only identified common factor was that the complainants in both cases were examined at the same Sexual Assault Referral Centre (SARC) some 30 hours apart, by different FHPs. When this potential quality failure was identified, the SARC was temporarily closed and only reopened after a support plan was completed.
Outcome	Although many points of good practice were observed upon investigation, there were several points where cross contamination was possible in the process completed by the FHPs.
Action	All critical stages need to be revisited for risk assessment to minimise risk in the future

1

What are the different DNA databases?

A DNA database is a collection of DNA profiles used to identify people for the purposes of elimination from, or investigation of, a crime. A DNA elimination database is designed to identify contamination that may have occurred in the DNA process chain. It acts to reduce unnecessary additional costs through wasted resources; avoids misleading police investigations; and limit delays in judicial conclusion. There are several types of elimination databases, but the ones listed below are the ones linked to the suggested process for SARCs:

- **NDNAD**

The National DNA Database – a national database managed by FINDS. This is the repository for profile results generated from samples taken from crime scenes and those taken from police suspects. The samples are analysed by FSPs and then uploaded to the NDNAD if the results meet the required criteria for upload.

¹ Example taken from '[FSR Lessons Learnt Issue 10](#)'

- **CED**

Centralised DNA Contamination Elimination Database – a national database also managed by FINDS used as a central tool to identify contamination within casework from those who work in roles that pose a high risk to contamination of the DNA evidential chain. All Police Officers are on this database along with other professionals or visitors to high-risk DNA environments.

- **SED**

Staff Elimination Database – an elimination database of staff and/or clients/contractors of an organisation which is held and managed (usually) by an FSP. The personal details and retention period of the data for the individuals on the SED are managed by the staff organisation itself and not the FSP.

For the purposes of identifying contamination within the SARC environment, there is a national recommendation that this is completed in a 'tandem' approach, separating where contamination may be detected into two processes. Environmental monitoring that is completed within the SARC should utilise an SED to identify contamination whilst the CED should be utilised for identifying potential contamination within casework.

How does the NDNAD differ from the SED and CED?

The NDNAD is the repository for all DNA profile results from arrestees and scenes of crime and sits independently from any contamination database.

National DNA Database numbers (Financial year 23/24)

- Between 2001 and March 2024, the NDNAD produced **821,794** matches to unsolved crimes, an average of **35,730 per year**
- **327,709** new subject (i.e. arrestee) DNA profiles were loaded to NDNAD (23/24)
- **24,240** new unmatched profiles from crime samples loaded (23/24)
- **723** of the new unmatched profiles loaded to the NDNAD in 23/24 were from crime samples loaded from Rape (585) and other sexual offences (138) making up 3% of the total for the year.

²

After generation of a result from a crime sample, it can be compared:

- Directly with the suspect's DNA (taken under PACE)
- Directly with the victim's DNA (for elimination purposes)
- Directly to other crime scene samples
- Searched against multiple DNA profiles of previously unmatched crime sample results (as happens with the NDNAD).
- Searched against multiple DNA profiles of individuals arrested under PACE (as happens with the NDNAD).

Regular matching either confirms or eliminates a suspect. If a crime sample does not match an arrestee, it remains on the NDNAD - without regular searching for contamination, a member of staff could be on this criminal database. With elimination searching, the contamination event would be identified, and the outstanding crime profile removed.

² Data taken from '[Forensic Information Databases annual report 2023 to 2024](#)'.

Retention of criminal person profiles (PACE arrestees) on the NDNAD differs depending on why their profile is on there in the first place. Individuals convicted of very serious criminal offences remain indefinitely, whereas arrestees who are not charged or prosecuted have their profiles removed after a period of time³.

Familial searches carried out on the NDNAD are completed using a sample from the suspect and this is searched against the NDNAD for close matches (i.e. parent/child/sibling). This is only completed in very rare and unique cases and are distinct from the CED. Any familial searches must be approved via the FIND Strategy Board chair or their nominee before being completed by FINDS. Only 22 searches of this nature were completed in 2023/2024⁴.

CED records are held for the purposes of identifying contamination only and therefore are never part of any familial searches that may be carried out on the NDNAD. Additional information about familial searches is available in section [3.3 CED](#)

Why do we need to be on an elimination database? Why can't we just submit a sample when contamination is suspected?

Due to the nature of the work completed within your role and the increasing sensitivity of DNA analysis techniques, it is impossible to eliminate all DNA from the designated forensic areas within the SARC. Despite careful mitigation steps, extraneous DNA could find its way innocently into casework. The ability to exclude this DNA from casework by first checking it across a database of people's DNA profiles who are at high risk of potentially contamination items reduces time, resource and cost of misled investigations.

It also protects the individual from having their DNA wrongly associated with a crime and remaining on the National DNA Database (NDNAD).

Under section 'FSA BIO-100 Forensic examination of sexual offence complainants', the FSR Code stipulates that:

Policy and procedures shall be in place to require a DNA elimination sample from all personnel who work at the facility prior to entering the forensic medical examination areas of the facility and addition of their DNA profile to a DNA elimination database(s). These personnel will include (but are not limited to) forensic healthcare practitioners (FHPs), crisis workers, and cleaning staff.

The FSR Code now carries statutory power and to meet the above requirement, staff identified as posing a significant risk of contamination to the DNA evidential chain, need to have any contamination from them identified and consequently eliminated from leads and assure the quality of the evidence entering the CJS.

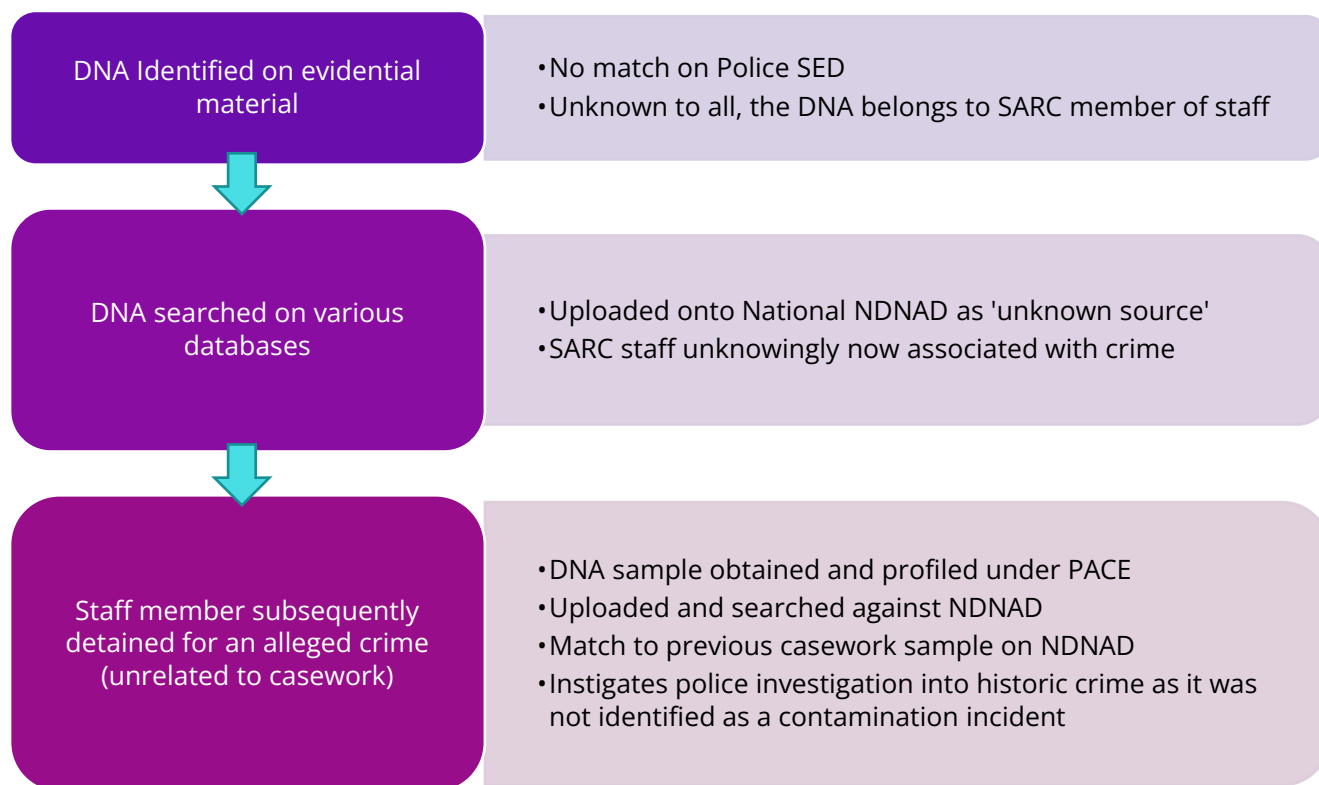
Providing a reference sample (as would sometimes be applicable to a visitor) would eliminate a forensic healthcare practitioner (FHP) from that case, but there remains a risk to other cases and would not allow efficient investigation into environmental failures unless repeated samples are requested each time contamination was suspected. This would have an additional cost and resource implication for the organisation as fresh samples would be required each time.

Below is an illustration of real-life example that occurred in the manufacturing industry where contamination from a staff member was uploaded to the NDNAD and not identified as contamination because no CED profile was available for checking. This would only be identified now by the 'Purge' process.

³ For additional information about NDNAD profile retention periods for convicted and un-convicted individuals, see Tables 6a and 6b in [Forensic Information Databases annual report - supplementary content](#)

⁴ Data taken from ['Forensic Information Databases annual report 2023 to 2024'](#).

Subsequently, the staff member was arrested for an unrelated matter and when their DNA sample (obtained under PACE) was uploaded to the NDNAD, it matched with a historical crime and was investigated for that. If the contamination had been identified and removed from the NDNAD, the staff member would not have been subjected to the initiation of an additional police investigation before being ruled out of the enquiry (when contamination was discovered). This same example has been adapted to show the risk to a SARC staff member by not being on an elimination database and who due to the nature of their role is at risk of contaminating casework.



How do we ensure that our staff provide a sample for elimination purposes?

Where possible, agreement to volunteer a sample for elimination purposes should be sought. However, as the FSR Code requires individuals in a role which poses a high risk of DNA Contamination in the evidential chain to be part of an elimination database, then these are more likely to be written into contracts as part of the job role.

This process will involve support from human resources.

Any role that has been identified as having a risk of DNA contamination must have the contracts written to include the requirement of sample submission for elimination purposes. The collection and submission of these samples would ideally form part of the induction and prior to any training and/or operational work commencing.

Existing roles will require a consultation period for a change of contract and then ultimately facilitate a change of contract of the existing staff members to include the requirement of sample submission for elimination purposes, unless samples from existing staff are volunteered.

The communication for this request from staff is key to ensure that staff understand how their biometric data is held and how it is used and the protection that it offers them. If pitched incorrectly, there may be a risk that FHPs leave the service. In order to assist with this, the FCN have compiled this guidance document with key stakeholders and also will provide a staff information webinar.

With any collection of an elimination sample (if not part of terms of employment or contractual agreement), a separate agreement should be completed with the donor and retained until the profile is removed from the database. The FSP will not process analysis of an elimination sample without basis, such as contract or agreement.

What happens if I refuse to give a sample?

If a staff member has been identified as having a role where there is a high risk of contamination, then the staff member must agree to give a sample for DNA elimination purposes, unless already stipulated in their contract. It is advised that employers make every effort to understand the concerns of the individual and try to get them the information to address and alleviate these concerns before progressing to any formal HR procedures. Please share our contact details with your staff or approach us on behalf of your staff member for any support around this.

If the staff member still refuses, then there would need to be in place a process (with support from human resources and Trade Unions where applicable) to redeploy to a role that does not pose a risk to DNA contamination. If there was no suitable alternative, then it may lead to dismissal under 'Some Other Substantial Reason (SOSR)'.

What is meant by a 'DNA profile'?

There may be some concerns about how much of your DNA is recorded and held for a biometric database. Your swab will be analysed using 'DNA-17' profiling system. This is an approach that looks at 16 short sequences of DNA across the whole genome, called short tandem repeats (STRs). The 17th STR is one that only appears as part of the X and Y chromosomes so will identify if you are genetically male or female. No other parts of your genome are analysed, inferred or held. Below is an example of a DNA-17 profile, however the layout may differ from FSP to FSP.

Locus	D10	vWA	D16	D2S1	Amelogenin	D8	D21	D18	D22	D19	TH01	FGA	D2S4	D3	D1	D12	SE33
Chromosome	10,11	12,13	16,16	2,3	N/A	8,9	21,23	18,19	22,23	19,19	11,12	4,6	2,3	3,4	1,3	12,14	6,6

Our recommendation is that the results of your DNA profile remain held by the FSP and your organisation is only notified that analysis has been completed. This supports the benefits of personal data separation and ensures that your data is only held by those who actually need it

3.2 SED

Why can't we just use the SED?

The SED is held by an FSP and managed on the SARC's behalf. This is how some forces manage contamination identification within their processes. However, due to changes in tenders for forensic analysis work and managing backlogs and workloads, often one force will not send all of their casework to an individual FSP. Additionally due to the complex landscape of SARCs where often multiple forces are served by single SARCs (especially with regional paediatric services) or times that SARCs are referred cases that are out of area, using solely the SED for identification of contamination in casework would not work.

If SARCs were advised to use solely the SEDs, then there would need to be a SARC SED held at each FSP that the force (or forces) uses which may be subject to change and is likely to mean multiple samples, duplicate and

triplicate analysis costs and staff data being held on multiple databases to ensure all casework over region and time is covered. Additionally, the long-term goal is for all to be managed using the CED.

How are FSPs managing SARC and Force SEDs?

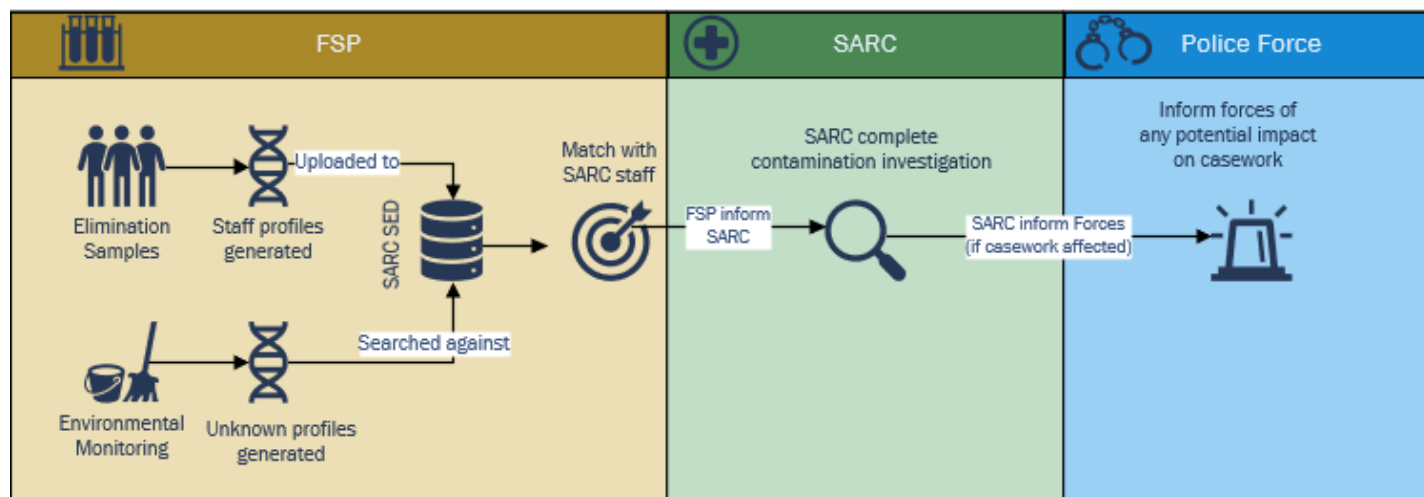
There is no 'one fits all' with SARCs and the approach depends on who completes your environmental monitoring analysis (and other non-casework analysis such as validation/verification). Some SARCs will arrange this themselves but some EM schedules are completed by an associated force.

- If your force completes the EM monitoring, then it makes sense to join their SED in addition to CED. However, ensure that you are aware that any crime profiles generated by any evidence submitted by the force to that FSP will be searched against the Force SED – not just the EM results. This means that the staff profiles will be interrogated by results from samples from all types of crime in that region.
- If your SARC is solely responsible for the EM schedule, then it is recommended that you create and manage your own SED with your chosen FSP providing the EM analysis service. This should ensure that only results from your EM are searched against your staff profiles, however you should request this information from the FSP as some manage their customer SEDs in one single database rather than independent SEDs for each customer.

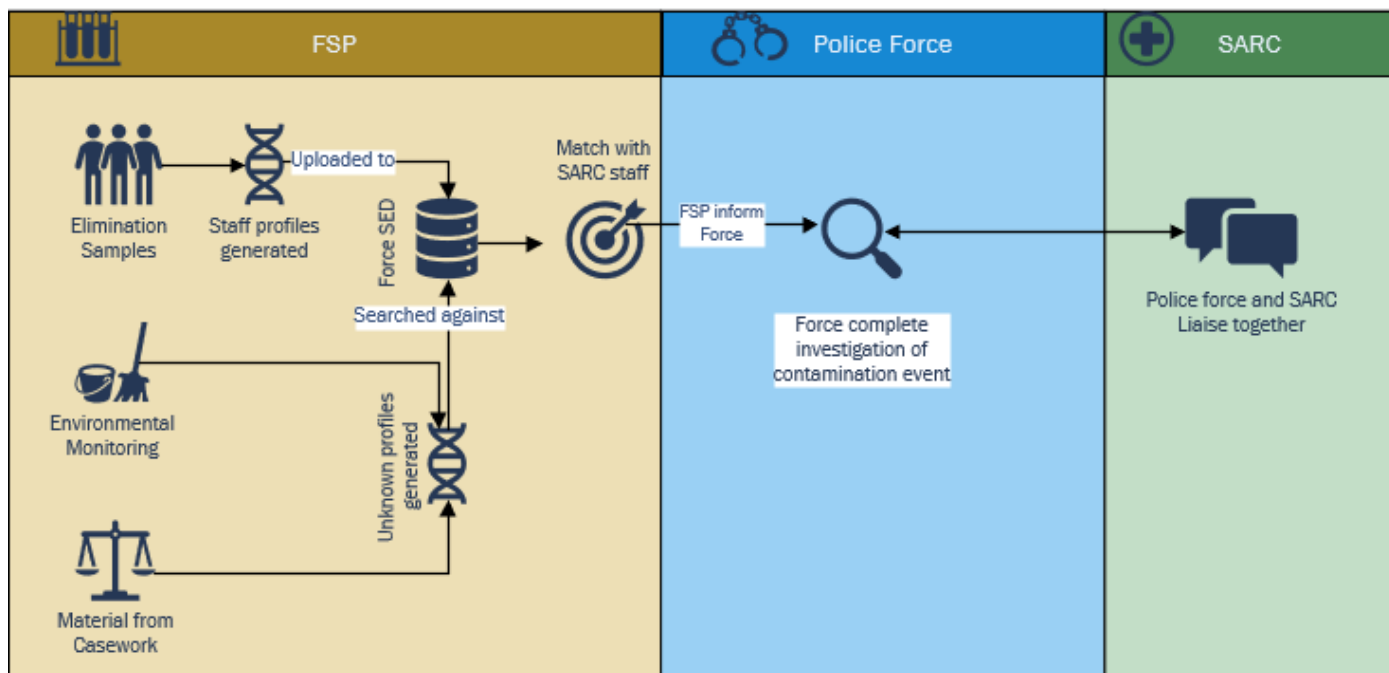
What is the process flow for SED samples and at what point are profiles searched against the database?

Below is a flow diagram to try and illustrate the process from SED sample submission and how EM submissions would work for both a SED managed by a SARC alone and an SED managed by a force. Please note that below is an illustration of how searches are completed and what your profile will be searched against (EM or EM and casework) but this can differ between FSPs, so it is advised that you request confirmation of the process from your organisation's chosen FSP.

SARC SED



Police SED



Due to the FSPs not having any of your personal details, any searches against the SARC or Police SED will not allow you to be informed, however any profiles yielded from EM samples from your SARC (and any police force crime samples if on the police SED) will always be searched against your profile and this is an ongoing process.

I understand that SARC casework sample results are often mixtures and can yield complicated results. Does this not mean that staff profile elimination from casework would be better suited within the FSPs rather than the CED?

The analysis of SARC casework sits well with FSPs as they have the ability to analyse and interpret mixtures. This is completed using a process within the FSPs called 'mixture deconvolution' where the specialist forensic scientist reviews the crime sample to see if a profile can be derived for searching. If it can, then it can still be speculatively searched or loaded to the NDNAD and then searched against staff profiles on the CED during the weekly extract of newly loaded profiles. If the mixture is too complex, then it would not be searched – even on the SED.

There may be times where it might be advantageous for a crime sample that cannot be loaded to the NDNAD to eliminate the FHP involved in the case. In this scenario, the police force could request release of a specific staff CED profile to allow a direct comparison to be completed by the FSP. The cost of this is met by the investigating police force.

3.3 CED

Who owns and maintains the CED? Is this subject to contracting and any tender process? What does this mean for our data?

The CED is held and maintained by the Forensic Information Database Service (FINDS), a Home Office Unit. This is completed on behalf of policing; however, they are independent to policing and no police staff or officers have access to the database. Due to it being a Home Office Unit, the service is not subject to tendering or change of contracts but is funded directly out of the policing budgets. This is why there are no ongoing costs to the SARCs after the cost of purchase and processing of the staff samples.

Contamination Elimination Database numbers

- Since the CED came into effect in 2015, :
 - **3,055** potential contamination events identified
 - This has resulted in **2,590** deletions from the NDNAD of unknown crime scene DNA profiles that have been attributed to the contamination of a crime scene/sample.

5

Why can't we just use the CED?

The CED currently has limitations (discussed in [section 2.5](#)) which means that it would not be able to be used to check staff profiles against possible contamination detected in the environment from EM swabs and any additional analysis the SARC may complete such as validation/verification. If only using CED to identify possible contamination, a SARC would be able to monitor their environment, but would be unable to investigate any profiles yielded from these swabs.

How are the CED samples loaded and searched on the CED?

The CED samples need to be taken using a specific CED sample kit and form from Scenesafe. These are analysed by an FSP and then the FSP loads the profile onto the CED. DNA profiles that have been generated from crime samples that meet the minimum load criteria and are from crimes where the perpetrator is unknown, are uploaded to the NDNAD by the FSPs. Any new and unmatched profiles from crime samples are lifted from the NDNAD and compared against those on the CED. If there is a match, an investigation is completed to determine if it has arisen through contamination during the collection and processing of the sample/exhibit. The approach to an investigation associated with a match on a CED is on the basis that there is an innocent explanation. Upon investigation completion, if any profiles are determined as contamination, then the profile is removed from the NDNAD. Any profiles considered adventitious remain on the NDNAD.

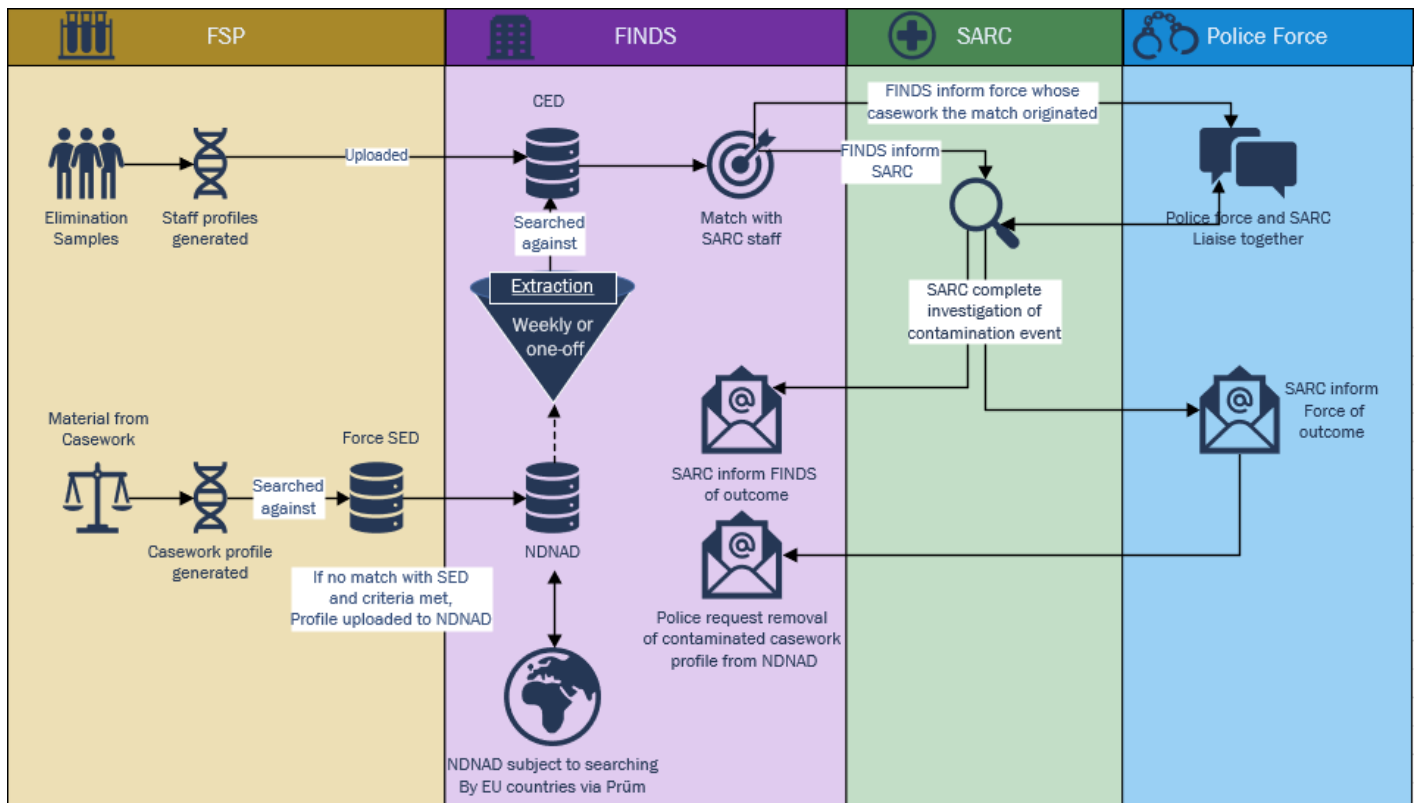
The process of lifting the new unmatched profiles from the NDNAD to compare against the CED is called 'washing' or 'NDNAD Extract' and is completed every week. As this is completed every week and due to FINDS not having your details, you are not going to be informed when this is happening, but agreeing to CED sample submission is acknowledging and understanding that this is an ongoing process. It is worth noting that unmatched crime sample profiles (which may contain contamination profiles) held on the NDNAD are subject to searches by other EU countries via Prüm.

This does mean that a contaminated crime sample profile may appear on the NDNAD for a maximum of 7 days before being eliminated by comparison against the CED, but it also demonstrates that the two databases sit entirely independent from each other with no automated link.

In time, the capabilities of the CED will extend to allow the comparison of a profile generated from a crime sample to be compared to those held on the CED on upload. If there is no match to the CED, it will then be loaded to the NDNAD, so the weekly extraction is only a temporary process.

Below is an overview of the CED process and illustrates the CED and NDNAD existing as completely separate entities.

⁵ As of 1st January 2025



What is the 'one off' or 'Purge' search that is recommended for SARC staff?

A one-off search comparison (sometimes called a 'purge') against all profiles held on the NDNAD at a single point in time. This uses the newly loaded staff profile to remove contamination profiles from the NDNAD when there was no prior elimination database profile available. If your DNA is inadvertently on the NDNAD through casework contamination, then it will also be subject for searching by other countries within Europe. As well as removing contamination for criminal casework, the 'purge' also protects the individual by the removal of their biometric data from the NDNAD. This is the reason for the recommendation for SARC CED onboarding.

Your profile is not compared against the entire NDNAD, as this includes profiles obtained under PACE from individuals arrested or charged with criminal activities. An extract of all unmatched profiles from crime samples (i.e. from unknown sources) is taken from the NDNAD and searched against the new staff profile on the CED.

I am worried about inadvertently implicating a family member with a crime as I believe that their profile may already be on the NDNAD. That is the reason that I do not want to give a sample. Would my profile ever be used to identify family members?

The limitations of the CED means that comparison against profiles generated from crime samples is by **exact match only**. The IT does not have the capability to run any familial searches and even if it did, this would be illegal and a breach of data protection law, as the lawful basis of searching the CED is for contamination reasons only.

3.4 CONTRACTORS AND VISITORS

If we only take contact details from contractors and visitors, what does this mean for them? What if we cannot contact them when we need to?

Despite all mitigations being in place, there always remains a risk of contamination due to the nature of the work. In order to reduce and manage the risk, actions and procedures must be in place. This is why contractors

and visitors (excluding the victim) should follow PPE and anticontamination procedures where possible. Cleans should be completed in the forensic area after each case or contractor visit before another case is started. Robust records of who and when people enter the forensic area need to be kept to allow investigation into suspected contamination to be able to be completed and give every opportunity to request a reference sample if one is needed.

Unless SARCs are given the opportunity to review their visitor history and request a reference sample to analyse against the crime sample, then a visitor or contractor profile may end up on the NDNAD and associated with a crime. On this rare occasion, a force will only get a matched individual, if the visitor or contractor has been arrested and had a PACE sample taken prior to or after the contamination happened.

All visitors and contractors need to be informed of the reasons for asking for contact details and what the risk it to them if they do not volunteer one in the small chance that one is needed. This needs to be an 'easy to understand' document to ensure that they understand what is being asked of them.

There is a chance that when required you are unable to get a sample or the individual refuses, however, the risk of this happening is incredibly small and one that is accepted provided all other mitigations are in place.

3.5 DATA RETENTION AND INFORMATION ASSURANCE

What is the recommended retention of my biometric data?

After your swab sample is taken, it is sent, anonymised, to an FSP. Once analysed, a profile is recorded and added to the organisation's SED or uploaded to the CED, the swab is destroyed as per local FSP protocol. There is no retention of your DNA sample after the DNA profile has been analysed.

The retention period for staff elimination profiles needs to be determined by the organisation but should be considered in line with their casework and the individual's role. Due to the retention period of samples from self-referral clients, it is recommended that the information linked to your profile is retained by your organisation for 24 months after your final forensic examination. The organisation must take the following steps to ensure your data is not kept any longer than necessary:

- If the employee is transferring to a new organisation and remaining in a high-risk role to the DNA evidential chain, they inform FINDS of the transfer and ensure the staff DNA profile data is transferred to the new employer.
- If the employee is moving to a role of low risk to the DNA evidential chain or leaving the profession, after 24 months inform FINDS to request removal of the staff profile.
- After 24-month retention period, the organisation must inform the FSP to ensure that the profile is deleted from the SED.
- Delete any personally identifiable information held by the organisation for the purposes of investigating contamination.

The organisation is notified that their request has been actioned, however, you are unlikely to be notified unless that is part of your organisation's policy.

Please bear in mind that on the rare occasion where self-referral samples are retained (with client permission) for longer than 24 months or in cold cases, you may be contacted for a reference sample where contamination is suspected, and your profile is no longer available for elimination on the databases.

What happens to my profile when I leave or move roles?

The profile should be retained as per the period defined in the original agreement or contract that the individual signed. The SARC needs to show that they can efficiently manage the profiles and request deletion of specific profiles when required.

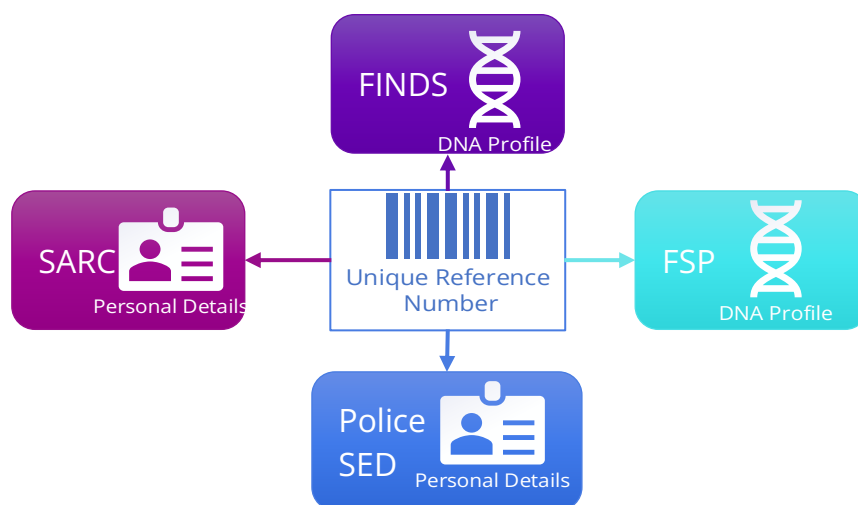
If you move organisations but remain in a high risk of DNA contamination role, then you are likely to remain on your previous organisation's SED database but also to be managed on your new organisation's SED database. This will allow EM contamination investigations to continue to be completed in your absence, especially if there may have been an impact on any self-referral cases. There will be a requirement to update your CED information so that the assigned SARC Code to your Unique Reference Number (URN) reflects where you are currently employed. This is completed using a FINDS amendment form (ref. FINDS-F-142). Your details and URN will also need to be transferred to your new employer. The transfer of this data from one organisation to another needs to be considered in original consent (when the sample is given) and continued in terms and conditions of employment.

If you leave or move to a role that is deemed a low risk of DNA contamination, then the organisation should make note of the date that you left the organisation or high-risk role and retain your profile for at least two years (to ensure you can be eliminated from any stored self-referral evidence). When the retention period has passed, the FSP and FINDS will be informed by your organisation and your profile will be deleted from the corresponding databases.

Who will have access to the database and what is held where? How do I have assurance that this will not be shared?

The SED is managed by your SARC's chosen FSP, a private service provider for forensic analysis, and the CED is managed by FINDS, a Home Office Unit who manages national biometric databases on behalf of policing. These databases are not public or available for general information. The data held by these organisations is a unique barcode or reference number (or URN) linked to the sample swab taken, your Date of Birth (DOB) and the organisation that you work for, and the DNA 17 profile from the barcoded swab (your DNA profile).

Your personal details are managed by your organisation and will include your unique barcode, name, DOB, role, and organisation. The FSP and FINDS are not able to link the profile that is generated from your sample to you without the information that your organisation retains. Below is an illustration to show the URN as the only common reference shared by FINDS, FSP and SARC (and the Police, if the SARC have joined the force SED for EM purposes).



Note: If you have joined a Force SED, the Force may also hold your profile results depending on their local procedure

Your organisation must ensure that your data is held securely and only accessed by those who are authorised to complete contamination investigations and manage the elimination database details. After analysis is complete your sample is destroyed, and your organisation will be notified that analysis has been complete.

The FSP analyse the sample taken from you but have no identifying information for you. The profile result (provided they meet the load criteria) is then shared with FINDS, when the profile and URN are uploaded to the CED.

FSP and SED

The FSP will have vetted and authorised personnel with access to all of the SEDs that the FSP holds. For the details of this, your organisation will need to contact the FSP that will be holding the staff profiles. Any sharing agreements between FSPs of profiles held by your FSPs may differ depending on whether your profile is held on the SARC SED or the Force SED. Again, as this differs, it is recommended that the organisation asks for these details from either the Force or the FSP.

FINDS and CED

FINDS do not share data other than for the clearly defined purposes and as of 1st January 2025, 7 vetted Home Office staff had access to the CED. This ensures correct security measures and the highest levels of data integrity are maintained.

For the purposes of reporting, anonymised data from the NDNAD and CED are published for public review.

3.6 MATCHES AND INVESTIGATION

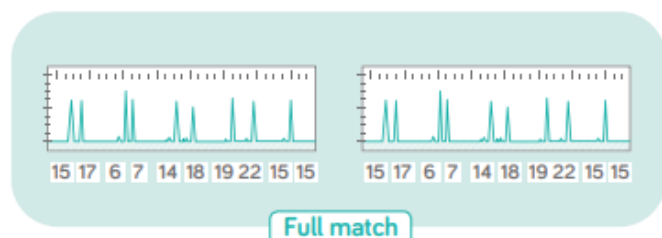
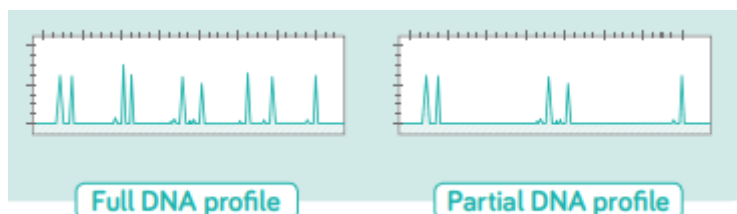
What happens if my DNA matches against an EM sample (using the SED)?

Your SARC is completing EM schedules and submitting these samples to their chosen FSP. If there is a match, a report will be returned to your organisation with the URN that the profile matched to. Your organisation will then be able to find out who's profile that is and investigate how your profile ended up on the EM swab. This may indicate an issue with the process or the cleaning product, but it is treated as an opportunity to improve practice and further mitigate against contamination.

You may be from a SARC who has been on-boarded to their Force SED. This means that your profile will be searched against not only the EM swab results, but also any results generated from crime scenes undertaken by that force and processed by that FSP. For any matches with this SED, the force (as data holders) will be alerted to the potential contamination and will either complete the investigation themselves or delegate that action to the SARC you are from.


What happens if my DNA matches against a crime sample result using the CED?

The search is completed by taking an extract of the new crime profile results loaded in the previous week, from the NDNAD and checking (or washing) these against the CED. All matches generated on the CED are exact matches, with the crime sample being either a full or partial profile.



6

If there is a positive match to your profile, a match report is sent to your organisation's nominated contacts. It is advised that the contact is either a shared email or several persons and provision is made so that all investigations are independent, i.e. an individual should not investigate suspected contamination matched to their own profile. This links in with the FSR Code requirements for 'Independence, impartiality and integrity'.



Home Office

CONTAMINATION ELIMINATION DATABASE – DNA MATCH REPORT

Date Match Identified

11/03/2024

Match Type

CFM

Match Report ID

207

Crime Stain Chemistry

DNA-17

MATCH SUMMARY

There has been a match between a DNA profile from a crime stain and a DNA profile taken from a visitor / officer / member of staff within your force.

Please can you investigate this using the guidance in the force data integrity procedure.

If the investigation confirms that the crime scene profile is from the visitor / officer / member of staff then please submit an NDNAD-F04 form to get the profile

Please also ensure that the FSP is informed so they can update the casefile records.

MATCH DETAILS SARC staff member - retained on the CED

Test Type	10
Class Code	CFM
Sample ID	77111138
Sample Type	3
Collar ID	S11138
Force	503
Station	MR
Crime	
Originating	
Case year	
Case Number	
DoB	30/03/1986
Profile Type	Full
Item Number	

Crime stain - retained on the National DNA Database

Test Type	10
Class Code	UN
Sample ID	87590015
Sample Type	52
Collar ID	null
Force	1
Station	XH
Crime	0905945/22
Originating	8
Case year	2022
Case Number	3165
DoB	null
Profile Type	Full
Item Number	SJF/1

This is an example of what a match report from the CED looks like. The left-hand side carries information from the CED, and the right-hand side carries the information from the profile that was on the NDNAD.

⁶ Illustration taken from 'Making sense of Forensic Genetics: What can DNA tell you about a Crime' 2017.

Your SARC will have its own allocated code and will appear within the 'Force' field on the left hand side. The 'Sample ID' is the barcode that was originally assigned to your DNA sample when you submitted it. This number is unique to you, your URN. The 'Collar ID' may be your personnel number that your organisation allocates to you upon employment. Your organisation will complete an investigation of the contamination using the 'Crime' number that was allocated to that case and the 'Item Number' for the individual exhibit.

Some SARCs may choose to nominate a force contact to receive a match report at the same time as the SARC does, however your SARC may choose against nominating a force contact - this may be the case if the organisation serves multiple forces, and it would be beneficial to complete preliminary investigation initially.

As soon as possible, it is advised that the SARC contacts the FSP and Force to whom this exhibit relates. FINDS manage and maintain a list for single point of contacts for contamination investigations and this is distributed regularly to those who have staff on the CED. This will ensure that any organisation is able to collaborate with the appropriate organisations for the contamination investigation and communication.

What happens if the contamination investigation does not indicate that the DNA is inadvertent?

If there is a match on a profile from a crime sample and there is no reasonable explanation for how it came to be there, for example it is not aligned to a case that you either work on or from a SARC that you work in, then the force who owns the crime sample is informed. Any information held by FINDS on the CED cannot be shared with the force and the force must obtain their own sample for profiling if required. Please note that DNA alone should not be used as the sole evidence in a criminal case and as DNA is everywhere and being shed all the time, context is the key.⁷ As with any criminal investigation, if there is a staff profile match that is not contamination, the force owning the crime sample will progress their investigation as they normally would.

⁷ For more information of how criminal investigations are carried out and how DNA fits into the investigation, see [Making sense of Forensic Genetics: What can DNA tell you about a Crime' 2017](#)

4

Acknowledgements, References & Appendix

4.1 Acknowledgement

4.2 References

4.3 Appendix – Risk assessment and checklist for
implementation

4 Acknowledgements, References and Appendix

4.1 ACKNOWLEDGEMENTS

This document could not have been created without the assistance of all involved in the FCN SARC Elimination Database Guidance Working group. Special thanks to June Guinness at the Office of the Forensic Science Regulator; Andy Thomson from FINDS, and Paula O'Rourke and her team at Cellmark Forensic Services for all of your knowledge, contributions and patience.

4.2 REFERENCES

- [Making sense of Forensic Genetics: What can DNA tell you about a Crime' 2017](#) (EUROFORGEN)
- The Forensic Regulator Code of Practice (OFSR)
- DNA Contamination Detection – The management and use of staff elimination databases (OFSR)
- [Forensic Information Databases annual report 2023 to 2024'](#). (FINDS)
- [Forensic Information Databases annual report - supplementary content](#) (FINDS)
- FINDS-P-009 'Policy for the Management of the Contamination Elimination Database (CED)' (FINDS)

4.3 APPENDIX – RISK ASSESSMENT AND CHECKLIST FOR IMPLEMENTATION

Below is a risk assessment of the process for SARC and the elimination databases (FCN-SAR-GUI-0035a). It also serves as a checklist for implementing all requirements and mitigations for an elimination database within SARC.



Attachment 2: Elimination Database End to End Risk Assessment and Implementation Plan