

RDG Guidance Note: Video Surveillance Systems and Work- related Violence

RDG-OPS-GN-066
Issue 1 – June 2023



About this document

Explanatory Note

The Rail Delivery Group is not a regulatory body and compliance with Guidance Notes or Approved Codes of Practice is not mandatory; they reflect good practice and are advisory only. Users are recommended to evaluate the guidance against their own arrangements in a structured and systematic way, noting that parts of the guidance may not be appropriate to their operations. It is recommended that this process of evaluation and any subsequent decision to adopt (or not adopt) elements of the guidance should be documented. Compliance with any or all the contents herein, is entirely at an organisation's own discretion.

Other Guidance Notes or Approved Codes of Practice are available on the [Rail Delivery Group \(RDG\) website](#).

Issue Record

Issue	Date	Comments
0.1	13.06.2023	RDG Policing & Security Group approval
0.1	15.06.2023	RDG Work-related Violence Project Board approval

This document is reviewed on a regular 2-year cycle.

Written by / Prepared by:

Linda Chandler (Network Rail) &
Jenna Brogden (Rail Delivery Group)

Authorised by:

Policing & Security Industry Group

Contents

About this document	2
Explanatory Note	2
Issue Record	2
Contents	3
1 Summary	4
2 Cost Effective Video Surveillance Systems	4
3 Standard Digital CCTV Systems	5
4 Facial Recognition CCTV	7
5 ANPR	7
6 Body Worn Video (BWV)	8
7 SMART CCTV	9
8 Photography in Public Spaces	10
9 Summary	11

1 Summary

Modern digital Video Surveillance Systems differ significantly from their old analogue counterparts, boasting a wider variety of types and enhanced capabilities, as well as superior quality. While this is promising in terms of efficiency, it also presents a fresh set of potential complexities and pitfalls when determining which system to install.

This guide examines various types of Video Surveillance Systems in relation to workplace violence

1. **A standard Digital CCTV system for any station**
2. **Facial Recognition Cameras**
3. **Automatic Number Plate Recognition Systems**
4. **Body Worn Video Cameras**
5. **SMART CCTV**

It is crucial to note that your company must adhere to Data Protection Legislation when implementing any of these measures. As necessary, consult or revise your company policy. Notably, sufficient signage is often critical in maintaining an effective deterrent factor in any system.

2 Cost Effective Video Surveillance Systems

When assessing any CCTV system, it is essential to consider its cost-effectiveness in two fundamental ways:

1. **Does it serve as a visible deterrent?** Are the presence of visible cameras and public perception monitors effectively discouraging offenders from committing crimes at the location? Can the mere presence of any kind of Video Surveillance Systems help to prevent criminal activity?
2. **Is the Video Surveillance Systems capturing footage that is useful for investigations?** Does the recorded footage aid in investigations when a crime occurs? When we say, "useful to an investigation," we mean:
3. **Can the recorded image be quickly downloaded to the police?**
4. **Is the image of sufficient quality to:**
 - a. Provide a clearer understanding of what occurred?
 - b. Identify potential offenders?
 - c. Identify any involved vehicles?

If the answer to any of these questions is "no," then the Video Surveillance Systems is not cost-effective. Video Surveillance Systems that fails to deter or detect offenses is useless and requires review to identify the underlying issues. Common problems with these systems include:

1. Cameras are not positioned optimally and do not provide adequate coverage of problematic areas.
2. Image quality is inadequate, and there are simple problems such as incorrect time stamps and blurry footage.
3. The cameras do not retain footage for an extended period.
4. Inadequate maintenance of the cameras since installation has left them in a state of disrepair, which may encourage offenders.
5. Staff are not adequately trained in using the cameras for basic functions such as downloading and reporting faults, leading to lost or unretrievable footage.
6. There is insufficient signage to inform people that CCTV is in use, rendering it ineffective as a deterrent if individuals are unaware of its presence.

When choosing a CCTV system, it is strongly advisable to consult the British Transport Police **“CCTV Standard Output Requirement”** document. Providing details on the best value for money in a railway setting. It is available on request from Design-outcrime@btp.police.uk or CCTVEnquiries@btp.police.uk.

To obtain a copy of BTP's CCTV guidance and receive input from a Designing Out Crime Officer (DOCO) regarding your plans, simply send an email indicating your role and location. A BTP DOCO will be assigned to respond to your request.

Although Video Surveillance Systems can be highly effective in combating various types of crime, this document provides a basic overview of each camera system available and its specific use in addressing workplace violence. The goal is to inform individuals of their options and recommend the most suitable system for their specific situations to prevent staff assault through Video Surveillance Systems. All systems offer potential benefits, and staff should be made aware of them and trained in how to operate and maintain their systems to take advantage of these benefits. When staff understand the benefits of these systems and how theirs operate, they are more likely to keep them running effectively.

We strongly advise system owners to link CCTV to their own internal networks or secure cloud which will enable the British Transport Police, control, and other relevant agencies to view it in real-time (subject to suitable controls to ensure compliance with data protection legislation).

3 Standard Digital CCTV Systems

To obtain good value for money when installing a CCTV system, the BTP document on CCTV guidance provides the best advice. It covers the optimal camera positioning, recording rates, and technical specifications for an effective system to prevent workplace-related violence.

3.1 What does it do?

A well-maintained and highly visible CCTV system on site can effectively deter offenders of all types and aid in the identification and prosecution of any offenders who commit a crime

related to workplace violence. Despite being commonly used, staff may fail to fully appreciate their usefulness if not informed of the benefits.

3.2 How can CCTV be useful in relation to workplace violence?

CCTV can be highly useful as it acts as a deterrent to offenders and aids in the identification and prosecution of offenders.

1. A well-planned and well-installed digital CCTV system can provide high-quality footage to assist with investigations.
2. Staff awareness and involvement are crucial in utilising the benefits of a good system.
3. Staff should be aware of camera coverage in their stations and use it to their advantage when dealing with difficult situations.
4. Regular checks for system faults should be encouraged, and any issues should be fixed promptly to ensure cameras remain operational.
5. In line with GDPR (General Data Protection Regulation), staff should have access to monitors in key areas to keep an eye on the environment and quickly identify any issues.
6. Staff input should be considered when positioning cameras to ensure vulnerable areas are covered, such as ticket barriers or staff parking areas.

3.3 Public Perception Monitors

Public Perception Monitors are large screens placed in visible locations to show that people are being monitored by CCTV. These monitors are commonly seen in large shops and supermarkets at self-checkout tills. It is crucial that these monitors display a clear image because a blurred or low-quality image can signal to offenders that the system is poorly maintained. A well-positioned Public Perception Monitor is a useful addition to a CCTV system. Good locations include entrances and ticket lines where conflicts with staff over incorrect tickets are likely.

Digital CCTV systems often come with additional features such as Pan Tilt Zoom cameras (PTZs), which are best used where there are dedicated security staff monitoring the cameras. However, most stations do not have monitored cameras, and an automatic PTZ camera may not be as effective as a well-positioned static camera. It is essential to consider if the system will be monitored when choosing the appropriate hardware.

Some digital systems also offer software-based options in addition to regular CCTV. While a standard digital CCTV system to the BTP specification is typically adequate, these upcoming software options may be worth considering for certain circumstances.

3.4 Conclusion

Digital CCTV systems have proven to be effective in preventing and identifying workplace violence, but it is crucial that they are properly designed and maintained to achieve their full potential. The BTP CCTV guidance document provides standards that should be met, and consulting with a BTP Designing Out Crime Officer and staff at the location can aid in making informed decisions. Neglecting to adhere to these standards could result in wasted resources and ineffective surveillance. For Guidance and Requirements for on-train camera monitoring systems please visit RSSB's [RIS-2712-RST Iss 1](#) (December 2021).

4 Facial Recognition CCTV

4.1 What does it do?

Facial recognition CCTV is a specialised type of camera that uses software to identify individuals who have been pre-programmed into a database. Unlike regular CCTV cameras, which only provide images for identification, facial recognition cameras can automatically alert staff when a person of interest is detected. These cameras are commonly used in high-security areas such as border controls, events, and locations of interest to terrorists. Although facial recognition software is still in development, it has shown to be surprisingly accurate even when individuals take countermeasures such as wearing hats or scarves. However, it is not a perfect technology, and an effective response plan is necessary for the system to be useful. Without a 24/7 response capability, alerts will not be addressed in a timely manner, rendering the system ineffective.

4.2 How can facial recognition software be useful in relation to workplace violence?

Facial recognition software can be a valuable tool in preventing workplace violence by identifying individuals who are known to be of concern. For example, in high-security areas, the software can be used to alert staff when a known violent offender enters the premises. However, this requires that the individual's face is already recorded and included in the database in compliance with relevant guidelines and legislation.

4.3 Conclusion

While facial recognition technology has its benefits, it has also sparked controversy and concerns over civil liberties. Some groups view it as overly invasive, and there are concerns about its accuracy when it comes to different skin tones. Individuals may feel uncomfortable about having their faces scanned and compared to images of offenders while going about their normal activities. Additionally, there is the risk of false positives, where individuals may be incorrectly identified as offenders. It is important to carefully consider the potential risks and drawbacks before implementing facial recognition technology, especially in high-risk locations where monitoring is already in place. Extensive consultation will be necessary before commencing any deployments, both in real-time and retrospectively, of Facial Recognition CCTV.

5 ANPR

5.1 What does it do?

ANPR, or Automatic Number Plate Recognition, is a system that scans and reads all vehicle registration numbers and compares them to a database of specific number plates to see if there is a match. It is commonly used in car parks to track payments or restrict access, and by the police to track the movement of vehicles linked to known offenders. Although ANPR may not be directly related to workplace violence, it can potentially assist in investigations.

5.2 How can ANPR be useful in relation to workplace violence?

ANPR may not be directly useful for preventing or responding to workplace violence. However, if a violent incident occurs and the offender flees in a vehicle, ANPR can potentially provide valuable information to Police in tracking down the offender. This information may include the make and model of the vehicle, as well as the license plate number, which can help to identify and locate the offender.

5.3 Conclusion

ANPR technology has limited usefulness in preventing and addressing workplace violence. Its primary purpose is to track vehicle registration numbers and match them with a database, making it useful for car parks and tracking the movements of known offenders. However, in most workplace violence scenarios, a good conventional CCTV system would be just as effective in recording an offender's vehicle registration number. Additionally, ANPR requires a robust monitoring plan to be effective, and its use may raise privacy concerns among staff and civil liberties groups. Therefore, it should only be considered in specific situations where it can provide tangible benefits.

6 Body Worn Video (BWV)

6.1 What does it do?

Body Worn Video can be small, portable cameras that can be clipped to the clothing of the staff member. BWV capture footage from angles and with audio that is not typically captured by standard CCTV cameras. They are easily visible to the public and are activated by the wearer. Most of these cameras do not constantly record but are only activated when the wearer feels the need to do so. The effectiveness of the technology will depend on the training and experience of the person wearing it, as is the case with any technological measure.

The principal benefits are:

1. **Staff Safety:** It has been proven by research that wearing a BWV can reduce the likelihood of an assault by up to 50% ([Cambridge University, 2019](#)).
2. **Enhanced coverage:** Body-worn video cameras are highly portable and can cover areas that fixed CCTV systems cannot.
3. **Personal deterrent:** The presence of a body-worn video camera can act as a strong deterrent against aggressive behaviour. Individuals who become aggressive are aware that their behaviour is being recorded, which can increase the risk of arrest.
4. **Improved arrest and prosecution rates:** If an offense does occur, the use of body-worn video cameras can increase the chances of successful arrest and prosecution.
5. **Panic response:** Somebody-worn video systems have the capability to stream live footage to authorised monitoring stations, which can be useful in responding to emergency situations.
6. **Improved safety culture:** The use of body-worn video technology can promote a safer and more accountable work environment, reducing the likelihood of incidents and improving overall safety culture. This can result in long-term cost

savings due to reduced accidents and injuries.

7. **Reduced legal claims:** Body-worn video cameras can provide valuable evidence in defending against false or exaggerated claims, reducing the likelihood and cost of legal claims.

BWV is expected to be increasingly used in the near future with many organisations rolling out a number of units, which is being implemented in close collaboration with unions and staff as part of the national BWV Adoption Project (2022 - 2023). It should be noted that most footage storage is cloud-based, and therefore, it must comply with the data quality and protection standards of your organisation. It is important to review your organisation's data storage and CCTV policy to ensure that it includes BWV and is updated accordingly. ([BWV Guidance](#), 2021).

6.2 How can BWV be useful in relation to workplace violence?

The future of body-worn video is promising, as this technology has become increasingly important across industries, including Law Enforcement, Healthcare, Fire and Rescue Services and the Rail industry. With the advancements in technology, body-worn cameras are becoming smaller, more lightweight, and powerful. This means that they will be more comfortable to wear and able to record high-quality video and audio for longer periods of time. Overall, we can expect to see continued innovation and adoption of this technology in various fields in the years to come.

6.3 Conclusion

In addition to the advancements in technology, there are several recommendations for the future of body-worn video, to ensure that appropriate policies and guidelines are in place to govern the use of this technology. For further information please see the [RDG Body Worn Video Use Guidance](#).

It is particularly important for organisations to consider how they are going to further embed adoption of this technology. This includes determining which personnel are required to wear cameras, what types of situations require the use of a camera, and how footage will be reviewed and analysed. By addressing these issues, the future of body worn video can continue to evolve in a positive and responsible manner.

7 SMART CCTV

7.1 What does it do?

Smart CCTV systems utilise software to detect specific behaviours. They can be programmed to identify and alert staff when someone exhibits concerning behaviour, such as pacing or standing too close to platform ends, which has made them useful in suicide prevention efforts. They can also detect behaviours such as drawing a weapon or mass movements like riots.

7.2 How can SMART CCTV be useful in relation to workplace violence?

Smart CCTV can be especially useful in preventing workplace violence by detecting and

alerting staff to potentially concerning behaviours or situations. By programming the system to recognise specific behaviours or actions, such as pulling out a weapon or acting agitated, staff can be quickly alerted to potential incidents and take appropriate action. This can help to prevent violent incidents from escalating or even occurring in the first place. Additionally, the footage captured by the system can be used as evidence in investigations and prosecutions.

7.3 Conclusion

SMART CCTV is a system that is best suited to high-risk locations and requires a robust monitoring strategy. It is important to ensure that alerts raised by the system are being actively monitored. While the software is constantly improving, it is currently not widely offered by CCTV companies. Some companies offer standard CCTV cameras with SMART capability that can be activated if monitoring capability becomes an option in the future. However, since most locations lack monitoring capability, SMART CCTV may not be useful, and a good standard CCTV system could be a better choice.

8 Photography in Public Spaces

8.1 Public rights

Mobile phones now commonly have cameras, allowing easy capturing and sharing of photos and videos. In England, there are no legal restrictions on taking photos in public spaces, including railway stations. Public sector workers should be aware that they generally cannot object to being photographed or filmed in public. However, there are exceptions when action should be taken against a photographer:

1. Sexual element: If the photo involves an invasion of privacy or offensive comments, staff should not tolerate it and report to the Police.
2. Harassment and intimidation: If the photo is part of a repeated pattern of behaviour causing distress to staff, action should be taken by the Police.
3. Terrorism or criminal activity: If there are reasons to believe the photo is related to these activities, it should be reported.
4. Being within a staff-restricted area: If the individual is in an area where public access is restricted, it should be reported.

In these cases, it is recommended to report the incident to management and BTP without confronting the photographer directly. BTP takes harassment and intimidation seriously and will thoroughly investigate.

8.2 Public filming rail employees

When someone attempts to photograph a staff member in a public space while they are addressing an enquiry or complaint at a station, it is advisable to remain calm, continue assisting them, and disengage if the situation becomes unsafe or cannot be resolved peacefully.

It is important not to try confiscating their phone or detaining them, as there are no legal grounds for doing so, and it may escalate the situation.

If the person becomes verbally abusive or physically aggressive, prioritise your safety, remove yourself from the situation, find a secure place, and promptly report it to BTP. If the customer remains calm and polite, there is no legal basis for objecting to the photograph.

Familiarise yourself with your company's policy on filming at stations. If someone indicates they will be filming, consider inviting them to sign in as a visitor and inquire about the purpose of their actions. If their explanation is reasonable, there is no need for further action. However, if you're unsatisfied with their response, report them to management and BTP immediately. Commercial filming usually requires prior permission and involves separate considerations.

8.3 Rail employees filming members of the public

Rail employees should avoid attempting to photograph difficult passengers using their personal or work mobile devices. If an employee is dealing with a challenging customer in an area without CCTV coverage, employees equipped with body-worn video should activate the recording if it is safe to do so.

If employees find it necessary to take a photograph of an offender in a public place for identification purposes, they are allowed to do so, but only from a safe location where the offender cannot approach them.

9 Summary

The tips mentioned above provide valuable guidance in selecting and implementing several types of Video Surveillance Systems based on the specific needs of your workplace. One key factor to keep in mind is to involve staff in the decision-making process and ensure they understand the purpose and benefits of the equipment. This is essential for successful implementation and effective use of Video Surveillance Systems as a deterrent.

Additionally, while traditional fixed CCTV systems are useful in most situations, mobile CCTV and body worn video can offer additional coverage and safety benefits. Smart CCTV systems, although suited for high-risk locations, require a robust monitoring strategy and may not be necessary for locations without monitoring capability.

It is also important to ensure that data storage and CCTV policies are in line with the standards applied. By following these tips and ensuring staff engagement, Video Surveillance Systems can be a highly effective solution for workplace safety and security.

10 References

- RSSB, RIS-2712-RST Iss 1 - On-Train Camera Monitoring Systems. [online] Available at: <https://www.rssb.co.uk/standards-catalogue/CatalogueItem/RIS-2712-RST-Iss-1>
- Cambridge University, Ariel, B, (2018). Reducing Assaults Against Staff Using Body-Worn Cameras (BWCs) in Railway Stations. Criminal Justice Review. [online] Available at: <https://journals.sagepub.com/doi/full/10.1177/0734016818814889>
- Body Worn Video: Codes of Practice & Guidance Notes. [online] Available at: <https://www.raildeliverygroup.com/our-services/cop-guidance.html#New-Technology>