

Dovetailed NTS Help Colleagues Stay Safe

Laura Hedley, Senior Occupational Psychologist at the OPC shares reflections on the inter-dependent safety-critical relationship between Controllers of Site Safety (COSS) and Signallers and how key Non-Technical Skills (NTS) closely fit together to keep track teams safe



There are many relationships that are inter-dependent in the rail industry, where working together means a safer and more effective network, or a better customer experience. Yet, nowhere is this more important, safety-critical and as lifesaving as the relationship between a Controller of Site Safety (COSS) and a Signaller.

A COSS's safety-critical role may be very varied on a daily basis – from patrolling a line section, repairing faulty points, to installing a major structure. It has significant and far-reaching accountabilities. As the person responsible for all site safety, if negligent, they risk prosecution should someone be harmed or killed. Having this weight of responsibility requires stringent training, relevant industry experience, a period of mentoring and certification to each specific level. Once qualified, they

undergo regular competency assessments and reviews to continue in the role.

Signallers are also a key safety-critical role with significant training requirements before commencing in post or progressing to a more senior grade. Alongside train movements, other key safety responsibilities are looking after train crew colleagues, and also a COSS and their team – Caring for their colleagues, ensuring their safety at all times.

So, what might some of the key Non-Technical Skills (NTS) be for these roles?

Safety, first and foremost

As both a COSS and Signaller are safety-critical roles, their first and foremost priority is safety over all other concerns. The safety of trains, train crews, rail passengers, and the track teams come first. There are three key NTS that all dovetail together to ensure effective and safe behaviours:

1. Valuing and prioritising safety can be demonstrated by a COSS ensuring they prioritise their own and their teams' safety vs. rushing to complete a job, so trains can resume or moving onto another job for cost-saving efficiencies. In the critical COSS/Signaller working relationship, this may mean that a Signaller would display the same NTS by not exerting pressure to complete a job ahead of schedule. If a job is taking longer than expected, the Signaller and COSS would work jointly to re-assess a plan. There's a clear recognition by both parties that rushing is more likely to lead to errors, and jeopardise safety.
2. Maintaining safety vigilance. Both roles are very dynamic. A Signaller needs to stay focussed, alert and concentrate on changing information for their line section all the time. A COSS needs to remain vigilant to identify hazards and risks for the team. Both roles work on shift patterns, so being aware of the impact of fatigue or task repetition on their safety vigilance is key to maintaining safety.
3. Risk anticipation, time focus and risk management. A COSS with a strong NTS of risk anticipation will be proactively 'scanning' for risks – in themselves, their team, the job, and their environment. Proactive risk management starts well before the work in their planning and preparation of a job. During the course of a job, a safe and effective COSS is able to think through changing situations, anticipating consequences and proactively taking action to remove or reduce risks.

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Effective, accurate and proactive planning is a key NTS

A skilled and high performing COSS will plan all aspects of the job proactively, to a meticulous standard – seeing this as entirely their own responsibility. Their planning will be very systematic, collating information from all relevant sources, checking for accuracy and reviewing all the details. They won’t leave planning to the last minute, be haphazard in it, or leave plans incomplete. Once on location, from a position of safety, they may do a last site-check comparison to make sure nothing has changed.

Because they ‘own’ the plan they will have a sound understanding of it, enabling them to communicate it and complete the team safety briefing assertively, with confidence. Being sure of the plan allows them to encourage others to work to it too; recognise any non-compliance and call a halt to work if it’s not progressing safely – as per the plan! They won’t be afraid to re-work a plan even if this causes a delay or takes additional or personal time. Meticulous planning is paramount and it’s a foundational aspect

of their character and safety-critical performance as a COSS.

An IOM commented: ‘An outstanding COSS will have a really strong NTS of assertiveness. They’re willing to speak up, confidently challenging something when it’s unsafe – They’re not afraid to ‘stand down’ their crew and call a complete stop. Even if the request is from someone more senior than themselves.’

Sound planning from a COSS helps a Signaller keep them safe

When interacting with the Signaller, the COSS’s coherent and effective planning will be very apparent. They’ll be able to communicate their requirements clearly, with succinct knowledge of the blockage location and points positions. They’ll also

have a realistic understanding of the time required to complete the job. This will make it easier for a Signaller to complete all the necessary approval paperwork to put the line blockage in place, and give them clarity for onward communication to Train Drivers or the next shift’s signaller person.

A Signaller’s NTS of effective decision making

As planning is a key NTS for a COSS, the dovetail fit is a Signaller’s NTS of effective decision-making. Their section of track and all the associated train or line activities on it are their full responsibility.

Effective and timely decisions are not made jumping to conclusions or by making assumptions. A systematic, analytical and calm step-by-step approach is more likely





to yield a safer solution. A good Signaller will listen and receive all the relevant information; assess it for gaps and collect any further missing facts. It's protocol to repeat information they've received for checking purposes. Once they're satisfied they have all the correct information they can implement a line blockage with confidence and authority.

The NTS of conscientious checking

Thorough planning and conscientious checks fit together hand-in-hand. An experienced and effective COSS will conscientiously check everything – especially their teams' certification, competence and fitness to work. Alongside personnel checks they'll review work detail, location, access points, equipment or PPE requirements – systematically and thoroughly. They'll undertake checks, personally, more than once, giving a final sign-off before leaving for the job. They will not leave this responsibility to another team member or succumb to rushing checks – even if this means a delayed start to the job. Conscientious checking helps save lives.

An IOM said: 'Some of the best COSS's I've worked with will take ownership for any errors. First, they'll use it for personal learning and development. Then they'll also share their mistake with younger, less experienced engineers, and be a real advocate for that particular NTS. Helping them to use it to stay safe.'

NTS of effective communication

Effective communication is crucial to both a COSS and a signalling role. All communication, written or verbal, whether with a group or with an individual needs to be clear, concise, and following a logical order. Regardless of accent, it's important that individuals receiving information can follow everything without any ambiguity. Coherent communication by a COSS during a safety briefing, to their team, is essential. An experienced and competent COSS will deliver a safety briefing with confidence,

sticking to protocols. They'll actively engage with the team, checking that everyone has heard and understood everything.

Clear and concise communication between a COSS and a Signaller is crucial for the safety of all concerned. It's key that processes are followed meticulously when agreeing a line blockage, location and duration. There is no room for misunderstanding through over-familiarity or slang-terms. An exemplary Signaller will stick to communication process steps, regardless of how familiar they may be with the COSS or the work required.

So, what NTS initiatives might help improve track workers' safety?

The OPC have psychologists who are safety-critical, Human Factors (HF) specialists, who've been implementing NTS and Human Factors work with UK and international rail clients for over 25 years. They can help identify what NTS are required in any safety critical role and support in their use during a recruitment process. They run successful NTS training that helps to upskill frontline staff and managers on what NTS are all about and how to use them to develop and enhance safety performance. Following a safety incident, the OPC also support with Post-Incident Assessments (PIA) that can identify the HF root causes of the incident.

The OPC regularly undertakes PIA with a wide range of operatives to help rail managers uncover the underlying NTS or HF causes of an incident. These PIA are often accompanied by development plans or training initiatives that might assist the employees' NTS development after an incident.

Many within the industry can recall instances where safety critical personnel may not have applied NTS. This may have led to work being carried out on open lines or in unsafe conditions. In some cases, this may have arisen from one or more NTS shortfall. Perhaps mis-communication on points locations, careless checking, insufficient up-front planning time or poor

detail. Other occasions may have been down to over-familiarity between individuals leading to inadequate checking processes or a reticence to assert themselves when challenged. Any of these NTS shortfalls can easily lead to a track team working on an open line to traffic with the potential for serious injury or fatalities.

An IOM commented: 'When it goes wrong, and there's an incident, an NTS gap can sometimes be evident. Root causes of an incident are much less likely to be attributed to what a personnel member has learnt or their technical competence. It's much more likely to be about their behaviour – what they've done or not done.'

Using effective recruitment tools that help assess for key NTS

OPC Assessment has a wide range of assessment tools that can help identify the key NTS when recruiting for many safety-critical roles such as Signallers and COSS. Some of these include: The Risk and Time Focus Questionnaire (RTQ) that helps profile a candidate's behaviours and attitudes towards risk anticipation, risk management and time focus. The RSJT (Railway situational Judgement Test) is specifically designed to assess a candidates' safety judgements, checking and conscientiousness abilities for a safety critical role. Additionally, the Safe Personality Questionnaire (SAFEPO) assesses for four personality factors; Cautiousness, Conscientiousness, Resilience and Rules Focus that are linked to safe behaviours in the rail industry.

Some of these tools have been statistically linked with training and job performance in rail employees. So, there's evidence to show that these tests do work. They can help to identify safety-critical employees who are more likely to perform better in training and be safer on the job. They can also be used for development purposes with existing employees too.

I can sum up by saying it is good to recognise that we all have a part to play in keeping each other safe. Working together, matching and complementing each other's skills to get the job done, keep the network running and deliver customer service – whilst improving safety standards. Seeing the application of NTS in other safety-critical roles, alongside Train Drivers is a really positive step and another milestone in the industry-wide implementation of them. **PP**



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