

TRAIN OPERATIONS MANUAL

Machine/Crane Controller Competence

Procedure: TMM001

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1 Purpose

- 1.1 This procedure defines Network Rail's requirements for managing the competence of contractors employees undertaking the duties of Machine Controller, Crane Controller or Crane Controller Tandem Lifting whilst working on its Managed Infrastructure.
- 1.2 Compliance with this Train Operations Manual Procedure is designed to maintain compliance with Network Rails requirements in respect of competence for:
 - Machine Controller
 - Crane Controller
 - Crane Controller Tandem Lifting
- 1.3 This procedure provides a risk-based process to gain and maintain the relevant competence frameworks.
- 1.4 Clarification and guidance on the scheme requirements are available via the NCCA (www.ncca-sentinel.co.uk or telephone 0870 1642244).

2 SCOPE

- 2.1 This Procedure applies to:
 - Contractor organisation and Agency staff undertaking the duties of On-Track Plant Machine Controller, Crane Controller and Crane Controller Tandem Lifting
 - Contractor organisation and Agency staff undertaking the duties of On-Track Machine Crane Controller and On-Track Machine Crane Controller Tandem Lifting
 - Licensed Training organisations providing initial training in the duties of Machine Controller, Crane Controller and/or Crane Controller Tandem Lifting
 - Licensed Assessment organisations providing competence assessments in the duties of Machine Controller, Crane Controller and/or Crane Controller Tandem Lifting

3 COMPLIANCE

- 3.1 This Network Rail Train Operations Manual procedure is mandatory and must be complied with by Network Rails Contractors and Suppliers.
- 3.2 Compliance to the requirements of this document are mandatory from 5th June 2010.
- 3.3 A resourced and auditable programme for the completion of assessments of all persons carrying out the duties of Machine Controller, Crane Controller or Crane Controller Tandem Lifting is required to be in place.

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4 REFERENCES OR ASSOCIATED DOCUMENTS

4.1	GE/RT8000	Rule Book
	RIS-1530-PLT	Engineering Acceptance of Possession-only Rail Vehicles and Associated Equipment
	NR/L2/RMVP/0206	Safe Use of Plant
	NR/L2/RMVP/0207	On / Off & Cross-tracking of On-track Plant (OTP)
	NR/L3/RMVP/047	Train Operations Manual
	NR/L3/RMVP/048	Train Operations Manual Industry Mandatory Section
	M&EE Codes of Practice	Current relevant M&EE Codes of Practice can be accessed and downloaded from the Rail Plant Association website.

5 Definitions and Abbreviations

5.1 Assessment

The gathering and judgement of evidence to demonstrate a person's Competence in accordance with a Standard of Competence.

5.2 Assessor

A licensed assessor person who is competent and authorised, in accordance with the organisation's Competence Management System and the Sentinel scheme, to assess the competence of others in the performance of their work.

5.3 Candidate

A person whose Competence is to be assessed by a Licensed Assessor.

5.4 CC

Crane Controller.

5.5 Competence

The ability to consistently perform work to the standard expected.

5.6 EAC

Engineering Acceptance Certificate.

5.7 ES

Engineering Supervisor.

5.8 Knowledge Evidence

Evidence that the Candidate can recall facts and knows how to apply principles. It may be observed during performance but is more likely to be gathered through oral questioning or written tests.

5.9 MC

Machine Controller (as defined in GE/RT8000).

5.10 Mentor

An individual who accompanied a newly qualified MC/CC/CCTL until it is deemed that they are ready to undertake a post mentoring workplace competence assessment.

5.11 NCCA

National Competency Control Agency.

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5.12 OTM

On-Track Machine (as defined in GM/RT2400).

5.13 OLE

Overhead Line Equipment.

5.14 OTP

On-Track Plant.

5.15 Performance Evidence

Objective (auditable) evidence that results from a person performing a task. Performance Evidence may arise from an Assessor's direct observation of the Candidate performing the task in question. Alternatively it may be gathered by inspection of the finished product and associated documents, or collecting witness testimony from third parties.

5.16 PICOP (SPICOP)

Person in Charge of Possession (Senior Person in Charge of Possession).

5.17 RMMM

Rail-Mounted Maintenance Machine (as defined in RIS-1530-PLT).

5.18 RRV

Road-Rail Vehicle (as defined in RIS-1530-PLT).

5.19 Standard of Competence

A Statement of:

- what a person has to be able to do and how well, in order to achieve the intended outcome of the work, as defined by the performance criteria
- how this is to be assessed
- the range of circumstances in which the ability would have to be demonstrated, as defined by the range statements
- the underpinning knowledge needed to give consistent and sustained performance, as defined by the Knowledge Evidence requirements

5.20 TL

Tandem Lift.

5.21 Unit of Competence

The specification and application of a collection of Standard(s) of Competence related to a specific activity and which are achievable by the individual in a particular role.

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6 SCHEME PRINCIPLES

- 6.1 Persons holding Machine Controller, Crane Controller and Crane Controller Tandem Lift competency are required to be registered on the national NCCA competency recording database and to carry a valid Sentinel OTP/OTM Competence Card, Secure Counterpart and Logbook as evidence of competency when undertaking these activities on Network Rail Managed Infrastructure.
- 6.2 Persons aspiring to hold Machine or Crane Controller Competency are required to undertake training and assessment(s) in accordance with the requirements of this procedure.
- 6.3 Training and assessment packs (modules) are available to support the scheme which are complementary to the Units of Competence. These modular packs are designed to cover generic machine types, trailers, and a core selection of commonly used attachments.

Important Note: Competence for machine variations (such as differing manufacturer etc) and attachments not within the scheme module matrix, fall outside of this scheme and remain entirely within the arrangements of the Machine/Crane Controller's employer.

- 6.4 There are three core competencies associated with the Sentinel scheme. These are supported by Units of Competency and displayed on the OTP/OTM Sentinel Card:

- Machine Controller
- Crane Controller
- Crane Controller Tandem Lifting

- 6.5 Before undertaking training to gain competency as a Crane Controller Tandem Lifting the applicant will be required to have undertaken at least 120 hours work as a competent Crane Controller.

- 6.6 There are three core machine types associated with the Sentinel scheme. These are displayed on the OTP/OTM Sentinel Competence Card:

- Road-Rail Vehicle (RRV)
- Rail Mounted Maintenance Machine (RMMM)
- On-Track Machine (OTM)

NOTE Road Rail Recovery Vehicles and/or Breakdown Cranes are not included in this scheme. Duty holders have separate arrangements in place for the specific competencies associated with their use.

- 6.7 Individual machine types, trailers and attachments shall be displayed on a 'Secure Counterpart' which supports the OTP/OTM Sentinel Card.
- 6.8 Machine and Crane Controllers shall maintain Sentinel scheme Logbooks which form a core part of the evidence collection required to maintain competency and proceed to the competence assessments required.

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7 Mandatory competence and experience pre-requisite requirements for Machine and/or Crane Controllers

7.1 The following core requirements are mandated as a minimum by this procedure and shall apply to all persons authorised to carry out the duties of Machine and/or Crane Controller:

- a) Be at least 18 years of age;
- b) Hold a current and valid COSS certification;
- c) Possess good written and verbal communication skills in English, to a level necessary to avoid danger;
- d) Meet the medical requirements as specified in NR/L2/OHS/00124;
- e) Have passed an examination to the required level of competence;
- f) Understand scope of appointment and be in possession of a valid Sentinel OTP/OTM certificate(card) and secure counterpart

8 Application of Units of Competence

8.1 Roles

Documented Standards of Competence applicable to the work activities associated with the duties of Machine Controller, Crane Controller and Crane Controller Tandem Lift have been developed and are contained within Appendix A of this document.

8.2 Selection of Units of Competence

Units of Competence for Assessment(s) shall be selected on the basis of the candidate's roles and responsibilities. The Unit title defines the expectations of the job role, and the responsibilities associated with that role detailed in the scoping statement prefacing each unit of Competence.

8.3 Applicability of Units of Competence

The table below indicates the applicability of Units of Competence to persons undertaking the duties of Machine Controller, Crane Controller, and Crane Controller Tandem Lift dependant on the competence required.

	Machine Controller	Crane Controller	Crane Controller Tandem Lifting
Unit 1	✓	✓	✓
Unit 2		✓	✓
Unit 3			✓

Units of Competence for OTP (RRV and RMMM)

	Machine Controller	Crane Controller	Crane Controller Tandem Lifting
Unit 1	N/A	N/A	N/A
Unit 2		✓	✓
Unit 3			✓

**Units of Competence for OTM
(Crane Controller and Crane Controller Tandem Lifting only)**

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9 TRAINING

- 9.1 Machine and Crane Controller training may only be provided by licensed training providers that have been registered by Sentinel. A list of licensed training providers can be obtained direct from the NCCA.
- 9.2 National Training Modules are produced for use by licensed training providers and a current list of those available can be obtained direct from the NCCA.
- 9.3 Trainers delivering Machine Controller, Crane Controller, and Crane Controller Tandem Lift initial training shall be licensed through the Sentinel process. Licensed trainers will meet the following requirements:
- One of the following Training Qualifications:
 - City and Guilds 7300 series
 - BR Methods of Instruction
 - CPCS Instructor Qualifications
 - ENTO / TDLB level Three in Training and Development (or appropriate units)
 - ENTO / TDLB level Four in Training and Development (or appropriate units)
 - Army / Fire / Navy / Air Force Service Instructor Qualifications (each syllabus for these would be reviewed and approved as fit for purpose).
 - Bespoke Train the Trainer courses (each syllabus for these would be reviewed and approved as fit for purpose)
 - RTAS-Approved Train the Trainer course
 - One of the following Assessment Qualifications:
 - D32 (D33 desirable)
 - A2 (A1 desirable)
 - Minimum of 2 years' experience in the rail industry working or training in association with the control or supervision of OTP/OTM – this must be relevant to what they are training or will be training
 - Current competence in OTP MC CC TL

OR

The trainer has evidence of attending the relevant course (in relation to what they will be training) within the last 2 years and passing it

OR

The trainer can sufficiently demonstrate knowledge and competence through continuous professional development

OR

The trainer can sufficiently demonstrate previous regular delivery of the relevant courses.

- 9.4 Licensed trainers must additionally meet the following requirement:

- Current Personal Track Safety AC/DC
- Controller of Site Safety (Current competence / evidence of attending a COSS course within the last 2 years and passing it, although a Sentinel card may not be issued)

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- Current Emergency First Aid (Full First Aid at Work is desirable)
- PTS Medical – in date
- Negative Drugs and Alcohol test carried out in line with the national policy / and or company procedures
- Full Colour Vision

NOTE If any trainer does not meet all of the medical requirements, each individual case will be assessed on its merits utilising the service and provision of a relevant professional medical expert and in liaison with Network Rail and the licensing body. A decision on trainer licensing will be made accordingly with the outcome and any required control measures documented.

9.5 Licensed training providers:

- Deliver training for machine and crane controllers in accordance with the relevant national trainer's plan for OTP/OTM
- Use the associated Sentinel national training material provided for Machine Controller, Crane Controller and Crane Controller Tandem Lifting training
- Provide suitable facilities to enable the practical demonstrations and exercises required by the individual training modules to be accomplished

9.6 Initial training includes theory and practical assessment(s) as part of the training course.

9.7 Where training is required on any OTM/RRV/RMMM, Trailer, or Attachment where the training pack (module) is not available from the NCCA, proposed national training material created by either the licensed trainer's organisation or the owner of the plant concerned must be submitted to Network Rail (or its nominated agent) for approval. The training material may only be utilised following approval by Network Rail (or its nominated agent).

9.8 Upon a candidate's successful completion of training and training assessment the training provider shall inform the NCCA and the employer/sponsor.

9.9 Following successful completion of 'Core' Competency training and training assessment as a Machine Controller, Crane Controller or Crane Controller Tandem Lifting, the candidate's Sentinel card will be provisionally endorsed with a (P) against the relevant core competency. This indicates that the candidate may only undertake those duties whilst being mentored. If the candidate has previously held the relevant core competency (within the previous 24 months), then the candidate may be issued with a Sentinel Card not endorsed with a (P) and need not be mentored in the work place provided:

- He/she has not been retrained due to an incident/accident or failed core assessment
- He/she undertakes the appropriate competence assessment(s) in a simulated environment upon successful completion of the appropriate training assessments

Please also refer to 'Note' in 10.2 below

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10 Mentoring

10.1 After successful completion of the initial Core Machine Controller, Core Crane Controller, or Core Machine Controller Tandem Lift training course and following the date of first certification, newly qualified individuals shall undertake mentored workplace experience for a probationary period until it can be confirmed by workplace competence assessment that they no longer require mentoring.

10.2 Mentoring is not a requirement following training limited to a new Machine, Trailer and/or Attachment type providing the relevant Core Competence is held. Mentoring is also not required if the candidate has previously held the relevant core competency (within the previous 24 months) and provided:

- He/she has not been retrained due to an incident/accident or failed core assessment
- He/she undertakes the appropriate core competence assessment(s) in a simulated environment upon successful completion of the appropriate training assessments

NOTE A limited number of Machine types require mentoring upon completion of training regardless of whether the core competency was held in the previous 24 months. A current list of these modules is available from the NCCA.

10.3 For a Machine Controller, Crane Controller, or Crane Controller Tandem Lift the period of mentoring is up to a maximum of four months. Before making a decision regarding the candidate's readiness to undertake a Post-Mentoring Workplace and Knowledge Testing Assessment, the mentor and employer/sponsor must verify that, as a minimum, the following criteria are met. The candidate shall have:

- Sufficient experience during mentoring of all activities, machine, trailer and/or attachment types trained in
- A Logbook entry signed by a mentor for each activity trained
- A Logbook entry signed by the mentor for each machine, trailer and/or attachment type trained
- Sufficient confidence to undertake the assessments required and subsequently work without a mentor

10.4 The formal assessment carried out in the workplace by a licensed assessor shall be completed within the probationary period following the initial training course. If the formal workplace assessment is not completed within the probationary period and then notified to the NCCA shortly afterwards, the individual's Machine Controller, Crane Controller or Crane Controller Tandem Lift probationary competence shall lapse and he/she shall require initial training followed by further mentoring just as if Machine/Crane Controller competence had never been held.

10.5 Upon successful completion of a Post Mentoring Core Competency workplace assessment the NCCA shall be advised by the licensed assessor accordingly and the provisional (P) restriction removed to permit a new Sentinel card to be issued with full competency.

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- 10.6 Mentors are appointed by employers/sponsors. The Mentor must be an experienced Machine/Crane Controller certificated competent (within the Sentinel scheme) in the activity and machine, trailer, and/or attachment type being utilised during the mentored shift.

11 Logbooks

- 11.1 Individuals shall be required to maintain a Logbook of Machine Controller, Crane Controller and/or Crane Controller Tandem Lift activities undertaken during the mentoring period and subsequently.
- 11.2 All Machine Controllers, Crane Controllers and Crane Controllers Tandem Lifting shall be briefed on the requirements to maintain a Logbook by their employer/sponsor. The employer/sponsor must advise the NCCA that this briefing has been completed and a Logbook issued to the employee.
- 11.3 Logbooks provide essential evidence required to permit competence assessments to be undertaken that subsequently lead to re-issue of Sentinel OTP/OTM Competence Cards and Secure Counterparts. In the event of a logbook being lost or a logbook entry not made for a particular task that has been undertaken the sponsor may complete a letter of declaration which details all activities and machine types the MC/CC/TL has worked within the validity of the current certification (max 2 years).
- 11.4 Employers/sponsors are responsible for reviewing their employees' Logbooks at the frequencies described within the assessment cycles and the guideline flowcharts supplied in Appendix B of this procedure. These reviews are to be undertaken with the employee present. The employer/sponsor must advise the NCCA when each review has been successfully completed. The logbook review must verify that the candidate will have a minimum of one logbook entry for each activity and machine/attachment type that the candidate will require to be assessed in by the time that the assessment is undertaken.
- 11.5 Logbooks can be obtained from sales@ashleyforms.co.uk.
- 11.6 Employers/sponsors shall be responsible for verifying that completed logbooks are retained for a minimum of 6 years.

12 COMPETENCE ASSESSMENT(S)

- 12.1 Machine and Crane Controller Competence Assessments may only be undertaken by Assessment Providers and/or Assessors that have been licensed by Sentinel. A list of licensed Assessment Providers and Assessors can be obtained direct from the NCCA.
- 12.2 National Assessment modules are produced for use by licensed assessment providers and assessors. A current list of those available can be obtained direct from the NCCA.
- 12.3 Persons holding Machine and/or Crane Controller Competency are required to undertake assessment(s) in accordance with the requirements of this procedure.
- 12.4 Machine Controllers, Crane Controllers, and Crane Controllers Tandem Lift shall be assessed in accordance with the timescales described within the flowcharts in Appendix B of this procedure evidencing that competent performance is consistently maintained and that deficiencies in competence are identified and remedied.

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12.5 Assessors undertaking Machine Controller, Crane Controller, and Crane Controller Tandem Lift assessments shall be licensed through the Sentinel process.

12.6 Assessors will meet the following requirements:

- One of the following Assessment Qualifications:
 - D32 (D33 desirable)
 - A2 (A1 desirable)
- Current Personal Track Safety AC/DC
- Controller of Site Safety (Current competence / evidence of attending a COSS course within the last 2 years and passing it, although a Sentinel card may not be issued)
- PTS Medical – in date
- Negative Drugs and Alcohol test carried out in line with the national policy / and or company procedures
- Full Colour Vision

NOTE *If any assessor does not meet all of the medical requirements, each individual case will be assessed on its merits utilising the service and provision of a relevant professional medical expert and in liaison with Network Rail and the Licensing body a decision on assessor licensing made accordingly.*

- Current Emergency First Aid (Full First Aid at Work desirable)
- Minimum of 2 years experience in the rail industry working or assessing in association with the control or supervision of OTP/OTM – this must be relevant to what they are assessing / will be assessing.
- Current competence in OTP MC CC TL (or OTM CC TL)

OR

The assessor has evidence of attending the relevant course (in relation to what they will be assessing) within the last 2 years and passing it

OR

The assessor can sufficiently demonstrate knowledge and competence through continuous professional development.

12.7 Competence Assessments shall be undertaken in accordance with the guidelines shown within the Assessment cycle timescales (see below) and the guidance flowcharts supplied in Appendix B of this procedure.

12.8 Assessment of Core Machine Controller, Crane Controller, and Crane Controller Tandem Lift Competence must be undertaken in the workplace or in a simulated environment. The assessment must be undertaken whilst controlling the most demanding activities and utilising the most complex machine, trailer and/or attachment type that is reasonably practicable to observe. The assessment requirements of the relevant Units of Competency must be met.

12.9 Competence Assessment(s) of additional machine, trailer and/or attachment types may be undertaken utilising direct observation, simulation, or knowledge testing.