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RAILTRACK PLC

MODEL CLAUSES FOR SPECIFYING CIVIL ENGINEERING WORKS

SECTIONS 130 - 134
Inspection of New Steelwork, Precast Concrete, Protective Treatment and Waterproofing

ISSUE NO. 1 REVISION A

RT/CE/C/008/130N
Page 1 of 26

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Amendments

Amendments and additions since the previous issue are marked by a vertical line in the right hand margin.

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SECTION 130 **INSPECTION OF NEW STEELWORK, PRECAST CONCRETE, PROTECTIVE TREATMENT AND WATERPROOFING**

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SECTION 130 — INSPECTION OF NEW STEELWORK, PRECAST CONCRETE, PROTECTIVE TREATMENT AND WATERPROOFING

NOTES TO SPECIFIER:

These notes do not form part of the Specification.

Generally — **130.1**

Sections 130 - 134 have been written for use in a Specification for inspection only contracts between Railtrack and an inspection company and assumes a separate site management contract.

Where inspection duties are to be included within an overall contract for site management, references to the site management contractor should be changed to 'Employer's Representative'.

Application of Clauses — **130.2**

The Model Clauses have been written with primarily for bridge works. However, the Clauses may be applied to the inspection of other structures, including precast troughing units and sleepers, where the materials and workmanship specification is similar to that used for bridge works.

Reference to other Sections — **130.3**

This Section is to be used in conjunction with Section 10: General and other relevant sections within the Contract. Reference should also made to the materials and workmanship specification for the Works to be inspected.

Organisation of Sections — **130.4**

The document is divided into five Sections to cover General Requirements for Inspection, Steelwork, Precast Concrete, Protective Treatment and Waterproofing.

Steelwork

Section 131 has been written with reference to BS 5400 and the materials and workmanship requirements specified in Sections: 70, 73, 79 and 90. If the items to be inspected are of a minor nature the Clauses may be simplified by the Specifier.

Precast Concrete

Section 132 has been written with reference to the materials and workmanship requirements specified in Sections: 70, 71 Precast Piles and Section 80: Structural Concrete.

Protective Treatment

Section 133 has been written with reference to the material and workmanship requirements specified in Sections 170 - 176: Protective Treatment. It takes account of both shop and site applied coatings.

Waterproofing

Section 134 has been written with reference to the materials and workmanship requirements specified in Sections 110 - 115: Waterproofing.

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SECTIONS 130 - 134

INSPECTION OF NEW STEELWORK, PRECAST CONCRETE, TREATMENT AND WATERPROOFING PROTECTIVE

SECTION 130 GENERAL REQUIREMENTS FOR INSPECTION

Definitions **130.001** The following definitions shall apply:

(i) Contractor shall mean the company or person carrying out the construction of the Works, including any fabrication or manufacturing sub-contractor,

(ii) Inspector shall mean the competent person who is to carry out the inspection of the Works,

(iii) Non compliance shall mean a deviation from the requirements of the contract for the works, including but not limited to the specification, contract drawings, agreed methods of working or procedures etc,

(iv) Site Management contractor shall mean the contractor employed to provide management services for the construction of the works,

(v) Verification shall mean the activities required to ensure that a process output meets the specification or other input requirements,

SEE NOTES TO SPECIFIER

(vi) Works shall mean the structure, including its materials and components, to be inspected.

NOTE TO SPECIFIER

Should there be no Site Management contractor, references in this Specification to 'Site Management contractor' should be changed to 'Employer's Representative'. In order to differentiate between the Contractor in the Contract which is written in the Model Clauses with a capital 'C', as the Site Management contractor is not the same company or person, 'contractor' in the Site Management contractor is written with a small 'c'.

(130.001)

Scope of Inspection **130.002** The Works to be inspected comprise :

!C! (i) .....
.....
..... .

Insert details of Works to be inspected

!C! (ii) .....
.....
..... .

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!C! (iii) .....
.....
..... .

!C! The Inspector shall verify that the Works have been carried out in accordance with the specification for materials and workmanship and the contract drawings!CHECK! for the Works. Any non compliances with the specification for materials and workmanship or the contract drawings shall be identified and reported to the Site Management contractor or the Employer's Representative as applicable.

NOTE TO SPECIFIER *The Specification for the Works may be supplied to the Inspector at Tender stage or as an Appendix to the Contract Documents, separately, or at a later date.*

The Inspector shall not accept or reject work on behalf of the Site Management contractor or the Employer's Representative.

The Inspector shall provide the Site Management contractor when required with advice on matters relating to materials and workmanship, programme, method statements or any other matter relating to the Works in order that the specification for the Works may be met.

(130.002)

Checking of fabrication drawings

130.003 !C! The Inspector shall check the fabrication drawings and report all errors, omissions, and discrepancies with the specification or contract drawings shown on the fabrication drawings or any other matter relating to the Works which might prevent compliance with the specification for the Works. The Inspector shall not approve fabrication drawings.

NOTE TO SPECIFIER *Checking of fabrication drawings may be allocated to the designer.*

(130.003)

Checking of method statements

130.004 The Inspector shall check method statements for the fabrication or manufacture of the Works, and shall identify and report bad practices proposed to be used in respect of the technical aspects of the proposed method statements and any incorrect sequences of fabrication or any other matter relating to the Works which might prevent compliance with the specification for the Works. The Inspector shall not approve method statements.

(130.004)

Competency of Inspector(s)

130.005 !C! The curriculum vitae of the Inspector(s) shall be submitted with the Tender!CHECK! and shall include, in addition to criteria considered relevant by the Contractor, details of the Inspector's experience of:

(i) inspection of works for railway construction,

(ii) inspection of works of a similar nature,

(iii) certification of competency in inspection and testing procedures,

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Insert any other details required !C! (iv) .....
.....

!C! (v) professional qualifications.

(130.005)

Inspection procedures and plan **130.006** The procedures used for the Inspection shall be approved to BS EN ISO 9002 or BS EN ISO 9003 by a body accredited by the United Kingdom Accreditation Service (UKAS) or other quality systems that can be demonstrated to the Employer's Representative to be equivalent.

!C! The draft inspection plan shall be submitted with the Tender,!CHECK! and shall include:

(i) details of Inspector(s) to be used,

(ii) schedule of inspections and checks related to items to be inspected,

(iii) outline checklists,

(iv) reporting procedure,

(v) format for inspection reports.

!C! Within 14 days!CHECK! of the award of the Contract, the final inspection plan shall be issued for the consent of the Site Management contractor.

(130.006)

Inspection schedule **130.007** Assuming a manufacturing period of .... weeks, the inspection
!C! schedule shall allow for the minimum number of visits shown in
!C! Table 130/1.!CHECK!

Table 130/1

SEE NOTES TO SPECIFIER	Item	No. of Visits
General Preliminary	Fabrication Drawings	-
	Works Inspection	1
	Equipment Inspection	1
Steelwork	Materials and Welding Procedures Audit	1
	Materials Inspection	1
	Preparation Audit	1
	Preparation Inspection	1
	Process Inspection - Welding	1
	Process Inspection - Other	1
	Completed Item Checks	1
	Remedial Works	1
Concrete	Materials Audit	1
	Formwork Fabrication	2
	Reinforcement Fixing	1
	Prior to Casting	1
	Casting	10
	Stripping of Formwork	1
	Curing	1
	Completed Item Checks	1

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