

---

# **Marking table for CCTV systems installed to NCP 104 (Issue 3)**

**NSF 351.1**

**January 2018**

This marking table is for use by NSI when inspecting CCTV systems that have been installed by NSI NACOSS Gold and NSI Systems Silver approved companies to the requirements of NCP 104 (Issue 3).

Demerit points may be given for non-compliance with clauses of NCP 104 (Issue 3) for which no specific reference has been made in the table of deviations listed in this document.

---

National Security Inspectorate  
Sentinel House,  
5 Reform Road  
Maidenhead  
SL6 8BY  
Website: [nsi.org.uk](http://nsi.org.uk)

© NSI 2018

*This is an unpublished work, the copyright in which rests with the National Security Inspectorate. All rights reserved.  
The information contained herein is the property of the National Security Inspectorate and is supplied without liability for errors or omissions and no part may be reproduced, used or disclosed except as authorised by contract or other written permission.  
The copyright and the foregoing restriction on reproduction, use and disclosure extend to all the media in which this information may be embodied.*

## NCP 104 (Issue 3) marking table

The NCP 104 (Issue 3) marking table is divided into Sections A to P as listed below.

Item	Title	Maximum marks
<b>Documentation</b>		
A	Risk Assessment	1
B	Site survey	1
C	User requirement	1
D	System design specification	1
E	Installation	1
F	Test Plan	1
G	Commissioning and handover	1
<b>Technical inspection</b>		
H	Imaging and sensing	2
J	Video and audio	2
K	Data handling	2
L	Networks	2
M	Ancillaries	2
N	Operations	2
P	Installation	2

### Notes

- Each Section of this marking table contains one or more Deviations (see pages 3 to 9 below).
- Each Deviation is given a Clause reference (for example; NCP 104/17: 7.6, Code H3 and a Point score 2.
- NSI Inspection Reports detail Deviations by Code, Clause, description of Deviation and Points.

Example:

H3, NCP 104/17: 7.6, Camera does not perform as defined in the UR/SDS, 2 Points.

## Marking table for CCTV systems installed to NCP 104 (Issue 3)

4. Points are awarded for each individual Deviation as shown in Note 3 above. However, the Maximum Points awarded in any Section are shown in the table above.

Example:

If two Deviations H1 (1 Points) and H3 (2 Points) are raised under Section H (Imaging and sensing), a total of 2 Points (not 3 Points) are awarded against Section H.

5. The total number of points awarded results in a grading (A to E). A = 0 points, B = 1-2 points, C = 3-5 points, D = 6-8 points and E = 9 points or more. The system will normally require a re-inspection if Grade D or E is achieved.

Clause	Code	Deviation	Points
<b>RISK ASSESSMENT</b>			
NCP 104/17: 4	A1	Documented Risk Assessment detailing; targets, locations, occupancy and history of criminality in area not completed.	1
<b>SITE SURVEY</b>			
NCP 104/17: 5	B1	Documented Site Survey detailing the following has not been completed:	1
NCP 104/17: 5	B1A	No detail of the date, time and location of the survey.	1
NCP 104/17: 5	B1B	Drawings and/or photographs and/or notes of the proposed location, including details of target and risk locations missing.	1
NCP 104/17: 5	B1C	Notes on the approximate distances to target and risk areas (to aid camera and lens selection) missing.	1
NCP 104/17: 5	B1D	Candidate locations for system components missing.	1
NCP 104/17: 5	B1E	Details of illumination missing.	1
NCP 104/17: 5	B1F	Details of local environmental concerns that may affect the design; for example, foliage, vehicle parking, adjacent public and private property boundaries, and so on missing.	1

Clause	Code	Deviation	Points
NCP 104/17: 5	B1G	<p>Details of any restriction on access and requirements for civil works; for example, power, communications, cable routing, and so on missing.</p> <p><b>Note:</b> Not all points may be applicable in all cases, for example, where a building is in the planning stage.</p>	1
<b>USER REQUIREMENT</b>			
NCP 104/17: 6	C1	A documented User Requirement has not been completed or does not contain, at a minimum, statements that cover the following requirements:	1
NCP 104/17: 6.1	C1A	No detail of the intended purpose of the system and what it is expected to achieve.	1
NCP 104/17: 6.2	C1B	No general description of the areas under surveillance.	1
NCP 104/17: 6.3	C1C	No or missing details of intended target of surveillance at each location, targets likely speed/direction, purpose of the image captured (image category).	1
NCP 104/17: 6.4	C1D	No image quality requirements for live, playback and export images; tracking and detecting targets; generating alerts/messages.	1
NCP 104/17: 6.5	C1E	No details of systems operational period(s).	1

Clause	Code	Deviation	Points
NCP 104/17: 6.6	C1F	No assessment of environmental conditions, such as; illumination in the target areas (type, hours of operation, lux levels, sunrise, sunset, vehicle lights); potential obstructions to camera views (foliage, vehicles, etc); wildlife, stock, vermin, etc that may affect camera and detector operation or cause damage.  <b>Note:</b> Details maybe included in Site Survey documentation.	1
NCP 104/17: 6.7	C1G	No details of any resilience requirements, such as; tampering, protection from power failures, preventing unauthorised access to system software, hardware and networks.	1
NCP 104/17: 6.8	C1H	No details of monitoring, storage and data retention requirements.	1
NCP 104/17: 6.9	C1J	Specific or generic export media and file formats not detailed.	1
NCP 104/17: 6.10	C1K	No operational responses identified, if necessary.	1
NCP 104/17: 6.11	C1L	No operator workstations and control room (where necessary) requirements detailed.	1
NCP 104/17: 6.12	C1M	Training requirements not identified.	1
NCP 104/17: 6.13	C1N	No assessment of requirements for integration and expansion.	1
NCP 104/17: 6.14	C1P	No details of audio requirements.	1
NCP 104/17: 6.15	C1R	No assessment of limitations of surveillance.	1
<b>SYSTEM DESIGN SPECIFICATION</b>			
<b>Documentation</b>			
NCP 104/17: 7	D1	SDS does not cover all UR and/or take account of limitations identified.	1

Clause	Code	Deviation	Points
NCP 104/17: 7	D2	SDS does not have unique reference number and a means to track revisions.	1
NCP 104/17: 7	D3	Agreed SDS not signed off by customer.	1
NCP 104/17: 7.1	D4	SDS does not draw attention to DPA/GDPR and ICO.	1
NCP 104/17: 7.2	D5	Site plan not included in SDS or does not contain all relevant requirements.	1
<b>Imaging and sensing</b>			
NCP 104/17: 7.3	D6	Camera and lens information missing or incomplete.	1
NCP 104/17: 7.4	D7	Where a stated requirement, home location and presets not identified for functional cameras.	1
NCP 104/17: 7.6	D8	Field of view and image category not identified for each camera or preset, if functional camera.	1
NCP 104/17: 7.7	D9	Detector/VCA coverage not stated.	1
NCP 104/17: 7.7	D10	Triggers and alerts (cause and effect) not stated.	1
NCP 104/17: 7.8	D11	Illumination requirements not stated.	1
<b>Video and audio</b>			
NCP 104/17: 7.9	D12	Video/audio formats for storage and export not stated.	1
NCP 104/17: 7.10	D13	Frame rate not identified for each camera.	1
NCP 104/17: 7.11	D14	Video resolution for camera/system not stated.	1
NCP 104/17: 7.24	D15	Audio requirements identified in UR not in SDS.	1
<b>Data handling</b>			
NCP 104/17: 7.12	D16	No calculation or assumptions made of storage requirements.	1
NCP 104/17: 7.14	D17	No consideration of encryption requirements.	1

Clause	Code	Deviation	Points
NCP 104/17: 7.15	D18	Metadata requirements identified in UR not in SDS.	1
<b>Networks</b>			
NCP 104/17: 7.19	D19	Network requirements for shared networks and external connectivity not stated.	1
NCP 104/17: 7.20	D20	Physical and technical security measures not considered during system design.	1
NCP 104/17: 7.23	D21	No assessment or test plan to ensure integrated systems function correctly.	1
NCP 104/17: 7.27	D22	Cable protection requirements not identified in SDS.	1
<b>Ancillaries</b>			
NCP 104/17: 7.21	D23	Tamper requirements identified in UR not in SDS.	1
NCP 104/17: 7.22	D24	No calculations for UPS/back up power supplies.	1
NCP 104/17: 7.28	D25	No assessment of suitability of support structures to withstand expected weight and wind loading.	1
<b>Operations</b>			
NCP 104/17: 7.25	D26	Control room requirements identified in UR not in SDS.	1
NCP 104/17: 7.26	D27	Workstation requirements identified in UR not in SDS.	1
NCP 104/17: 7.29	D28	Training requirements not stated.	1
NCP 104/17: 7.30	D29	SDS does not include a maintenance plan specific to the system and the operational and environmental conditions.	1
NCP 104/17: 7.30	D30	No assessment of ongoing system security requirements included in maintenance plan.	1
<b>INSTALLATION</b>			
NCP 104/17: 8.5	E1	No cross reference or running out list/diagram of cabling and equipment.	1

Clause	Code	Deviation	Points
<b>TEST PLAN</b>			
NCP 104/17: 9.1	F1	Test plan not agreed with customer.	1
NCP 104/17: 7.9	F2	Image quality tests not defined.	1
NCP 104/17: 9.1	F3	Test plan does not cover operational period/all system functions.	1
NCP 104/17: 9.1	F4	Results of testing not fully documented.	1
<b>COMMISSIONING &amp; HANDOVER</b>			
NCP 104/17: 9.2	G1	Commissioning process not completed/documented.	1
NCP 104/17: 9.3	G2	Handover process not completed/documented.	1
NCP 104/17: 9.4	G3	No agreement on holding user accounts and password for maintenance purposes.	1
NCP 104/17: 10.1	G4	Customer documentation incomplete/missing.	1
NCP 104/17: 10.2	G5	Installer documentation incomplete/missing.	1
NCP 104/17: 8.5	G6	Network data cabling installed by the security company has not been tested as required by clause <b>8.5</b> .	1
<b>SYSTEM INSPECTION</b>			
<b>Imaging and sensing</b>			
NCP 104/17: 7.4	H1	Functional cameras do not meet UR for pre-sets (if specified).	1
NCP 104/17: 7.4	H2	Functional cameras unable to track fastest expected target.	1
NCP 104/17: 7.6	H3	Camera does not perform as defined in the UR/SDS.	2
NCP 104/17: 7.7	H4	Detectors operate outside of camera view OR do not detect targets within stated coverage.	1
NCP 104/17: 7.7	H5	Detection using VCA does not function as required by the UR.	1
NCP 104/17: 7.7	H6	Cause and effect caused by detection of targets does not meet the UR.	1



Clause	Code	Deviation	Points
NCP 104/17: 7.8	H7	Poor illumination level, spectral content or contrast prevents UR from being met.	1
NCP 104/17: 7.8	H8	Illumination does not operate over operational period.	1
<b>Video and audio</b>			
NCP 104/17: 7.9	J1	Video formats do not meet the UR.	1
NCP 104/17: 7.10	J2	Frame rates incorrectly configured.	1
NCP 104/17: 7.11	J3	Video resolution not as stated in SDS.	1
NCP 104/17: 7.24	J4	Audio is not clear and/or does not cover areas identified in UR.	1
<b>Data handling</b>			
NCP 104/17: 7.12	K1	Storage does not meet UR.	1
NCP 104/17: 7.13	K2	Data compression affects quality of images during playback or export.	1
NCP 104/17: 7.14	K3	Encryption prevents playback or export of images.	1
NCP 104/17: 7.15	K4	Times stamps not a minimum of 1 sec and/or video and audio play back is not synchronised.	1
NCP 104/17: 7.15	K5	Where required system does not auto update time between BST and UTC and/or no means provided to update system time.	1
NCP 104/17: 7.15	K6	Metadata requirements identified in UR or SDS missing.	1
NCP 104/17: 7.16	K7	System does not audit image enhancement actions, where provided.	1
NCP 104/17: 7.17	K8	Quality of exported data is does not meet UR.	1
NCP 104/17: 7.17	K9	Original metadata is not exported.	1
NCP 104/17: 7.17	K10	System cannot export images of specific cameras at defined time intervals.	1

Clause	Code	Deviation	Points
NCP 104/17: 7.17	K11	Simultaneous export and recording not possible (except where primary storage has to be removed for export).	1
NCP 104/17: 7.17	K12	Export method not appropriate for expected use.	1
NCP 104/17: 7.17	K13	Time estimated to complete export request not displayed.	1
NCP 104/17: 7.17	K14	Media player not exported with proprietary video formats.	1
<b>Networks</b>			
NCP 104/17: 7.19	L1	Image loss, litter or delay on live viewing or playback caused by network.	1
NCP 104/17: 7.20	L2	Access to system components, applications and operating systems are not restricted to authorised individuals or processes by the use of authentication protocols and access controls.	1
NCP 104/17: 7.23	L3	Systems not correctly integrated or has a detrimental effect on connected systems and/or networks.	1
NCP 104/17: 7.27	L4	Cable types do not meet equipment manufacturer's recommendations or are unsuitable for the installed environment.	1
<b>Ancillaries</b>			
NCP 104/17: 7.5	M1	Equipment and housings not fit for expected environmental conditions.	1
NCP 104/17: 7.21	M2	Cameras field of view or cables not protected from tampering.	1
NCP 104/17: 7.22	M3	UPS/back up supplies do not meet UR.	1
NCP 104/17: 7.27	M4	Cables not protected from accidental or malicious damage.	1
NCP 104/17: 7.28	M5	Masts, towers, brackets and/or supports not stable and secure.	1

Clause	Code	Deviation	Points
<b>Operations</b>			
NCP 104/17: 7.18	N1	Displays not suitable for operator task or images are distorted or cropped.	1
NCP 104/17: 7.25	N2	Control room does not meet UR.	1
<b>Installation</b>			
NCP 104/17: 8.4	P1	Power supplies not located in a secure area or positioned to prevent/deter tampering or configured to detect and report tampering.	1
NCP 104/17: 8.4	P2	Equipment housings containing mains voltages not marked.	1
NCP 104/17: 8.5	P3	Wiring not installed iaw manufacturer's requirements.	1
NCP 104/17: 8.5	P4	Cabling not suitably segregated, screened and insulated as required.	1
NCP 104/17: 8.5	P5	Fixed interconnection cabling not suitably supported.	1
NCP 104/17: 8.5	P6	Containment not suitable for environment.	1
NCP 104/17: 8.5	P7	Structured cabling components incompatible.	1
NCP 104/17: 8.5	P8	<i>Access (patch cables) and interconnection cabling of incorrect type.</i>	0
NCP 104/17: 8.5	P9	<i>Audit Note only</i> Cabling not clearly marked at termination points with source and destination information.	1