

# NASSCO'S PIPELINE ASSESSMENT & CERTIFICATION PROGRAM (PACP)©

## Section 4—Continuous Defect Coding

**"TRULY" 4-1**

"Truly" continuous defects run along the sewer without any interruption for more than three feet (1 meter).

Examples:

- Longitudinal Fractures
- Longitudinal Cracks

**"REPEATED" 4-1**

"Repeated" continuous defects occur at regular intervals along the sewer. These occur at pipe joints and include:

- Encrustation
- Open Joints
- Circumferential Fractures

**Code Changes in Version 6.0.1**

Added:  
Buckling Wall (KW), Buckling Dimpling (KD), and Buckling Inverse Curvature (KI)

## Section 5—Structural Defect Coding (Module 6A)

**C CRACK 5-1**

CL Longitudinal 5-2  
CC Circumferential 5-2  
CM Multiple 5-2  
CS Spiral 5-2  
CH Hinge 5-2

**F FRACTURE 5-7**

FL Longitudinal 5-7  
FC Circumferential 5-7  
FM Multiple 5-7  
FS Spiral 5-7  
FH Hinge 5-7

**B BROKEN 5-15**

BSV -Soil Visible Beyond Defect 5-15  
BV V -Void Visible Beyond Defect 5-15

**H HOLE 5-17**

HSV -Soil Visible Beyond Defect 5-17  
HV V -Void Visible Beyond Defect 5-17

**D DEFORMED 5-19**

DV Deformed Vertically (brick) 5-19  
DH Deformed Horizontally (brick) 5-19

**X COLLAPSE 5-23**

XP Pipe Collapse 5-23  
XB Brick Collapse 5-23

**J JOINT 5-26**

JO Joint Offset (Displaced) 5-26  
JS Joint Separated (Open) 5-26  
JA Joint Angular 5-26

**S SURFACE DAMAGE 5-31**

SRI Roughness Increased 5-31

SRI - M - Mechanical  
SRI - C - Chemical  
SRI - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SAV Aggregate Visible 5-31

SAV - M - Mechanical  
SAV - C - Chemical  
SAV - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SAP Aggregate Projecting 5-31

SAP - M - Mechanical  
SAP - C - Chemical  
SAP - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SAM Aggregate Missing 5-31

SAM - M - Mechanical  
SAM - C - Chemical Attack  
SAM - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SRV Reinforcement Visible 5-31

SRV - M - Mechanical  
SRV - C - Chemical Attack  
SRV - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SRP Reinforcement Projecting 5-31

SRP - M - Mechanical  
SRP - C - Chemical Attack  
SRP - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SRC Reinforcement Corroded 5-31

SRC - M - Mechanical  
SRC - C - Chemical Attack  
SRC - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SMW Missing Wall 5-32

SMW - M - Mechanical  
SMW - C - Chemical Attack  
SMW - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SSS Surface Spalling 5-32

SSS - M - Mechanical  
SSS - C - Chemical Attack  
SSS - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SZ Other 5-32

SZ - M - Mechanical  
SZ - C - Chemical Attack  
SZ - Z - Not Evident

**S SURFACE DAMAGE 5-31**

SCP Corrosion (metal pipe) 5-32

\*no modifiers used

**K BUCKLING 5-45**

KW Wall 5-45  
KD Dimpling 5-45  
KI Inverse Curvature 5-45

**LF LINING FAILURE 5-49**

LFDE Detached Lining 5-49  
LFDE Defective End 5-49  
LFB Blistered Lining 5-49  
LFCS Service Cut Shifted 5-49  
LFAC Abandoned Connection 5-49

**LF LINING FAILURE 5-49**

(continued)

LFOC Overcut Service 5-49  
LFUC Undercut Service 5-49  
LFBK Buckled Lining 5-49  
LFW Wrinkled Lining 5-49  
LFAS Annular Space 5-49

**LF LINING FAILURE 5-50**

LFBU Bulges 5-50  
LFDC Discoloration 5-50  
LFDL Delamination 5-50  
LFRS Resin Slug 5-50  
LFPH Pinholes 5-50  
LFZ Other 5-50

**WF WELD FAILURE 5-67**

WFL Longitudinal 5-67  
WFC Circumferential 5-67  
WFM Multiple 5-67  
WFS Spiral 5-67  
WFZ Unidentified 5-67

**RP POINT REPAIR 5-71**

RPR Pipe Replaced 5-69  
RPR - D -Defective 5-69

RPP Patch Repair 5-69  
RPP - D -Defective 5-69

**RP POINT REPAIR 5-71**

RPL Localized Pipeliner 5-69  
RPL - D -Defective 5-69  
RPZ Other 5-69  
RPZ - D -Defective 5-69

**BRICKWORK 5-77**

DB Displaced 5-75  
MB Missing 5-75  
DI Dropped Invert 5-75

**BRICKWORK 5-77**

MM Missing Mortar 5-75  
S -Small 5-75  
M -Medium 5-75  
L -Large 5-75

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## Section 6—Operational and Maintenance (Module 6B)

D	DEPOSITS	6-1
DA	Attached	6-1
DAE	-Encrustation	6-2
DAGS	-Grease	6-2
DAR	-Ragging	6-2
DAZ	-Other	6-2

D	DEPOSITS	6-1
DS	Settled	6-1
DSF	-Fine	6-2
DSGV	-Gravel	6-2
DSC	-Hard/Compacted	6-2
DSZ	-Other	6-2

D	DEPOSITS	6-1
(continued)		
DN	Ingress	6-1
DNF	-Fine (silt & sand)	6-3
DNGV	-Gravel	6-3
DNZ	-Other	6-3

R	ROOTS	6-7
RF	Fine	6-7
RFB	-Barrel	6-7
RFL	-Lateral	6-7
RFC	-Connection	6-8

R	ROOTS	6-7
RT	Tap	6-7
RTB	-Barrel	6-7
RTL	-Lateral	6-7
RTC	-Connection	6-8

R	ROOTS	6-7
RM	Medium	6-7
RMB	-Barrel	6-7
RML	-Lateral	6-7
RMC	-Connection	6-8

R	ROOTS	6-7
RB	Ball	6-7
RBB	-Barrel	6-7
RBL	-Lateral	6-7
RBC	-Connection	6-8

I	INFILTRATION	6-13
IS	Stain	6-13
IW	Weeper	6-13
ID	Dripper	6-13
IR	Runner	6-13
IG	Gusher	6-13

OB	OBSTACLES/ OBSTRUCTIONS	6-19
OB	Brick or Masonry	6-19
OBM	Pipe Material in Invert	6-19
OBI	Object protruding through wall	6-19

OB	OBSTACLES/ OBSTRUCTIONS	6-19
OBJ	Object wedged in joint	6-19
OBC	Object through connection/junction	6-19
OBP	External Pipe Cable	6-19

OB	OBSTACLES/ OBSTRUCTIONS	6-19
OBS	Built into structure	6-20
OBN	Construction Debris	6-20
OBR	Rocks	6-20
OBZ	Other	6-20

V	VERMIN	6-31
VR	Rat	6-31
VC	Cockroach	6-31
VZ	Other	6-31

G	GROUT TEST & SEAL	6-33
GTP	Grout Test Passed	6-33
	GTP - J - Joint	6-33
	GTP - L - Lateral	6-33
GTF	Grout Test Failed	6-33

G	GROUT TEST & SEAL	6-33
GTU	Grout Test Unable	6-33
	GTU - J - Joint	6-33
	GTU - L - Lateral	6-33
GRT	Grout Test Location	6-33

## Section 7—Construction Features Coding (Module 6C)

T	TAP	7-1
TF	Factory Made	7-1
TFI	-Intruding	7-2
TFA	-Active	7-2
TFC	-Capped	7-2
TFB	-Abandoned	7-2
TFD	-Defective	7-2

T	TAP	7-1
TB	Break In/Hammer	7-2
TBI	-Intruding	7-2
TBA	-Active	7-2
TBC	-Capped	7-2
TBB	-Abandoned	7-2
TBD	-Defective	7-2

T	TAP	7-1
TS	Saddle	7-2
TSI	-Intruding	7-2
TSA	-Active	7-2
TSC	-Capped	7-2
TSB	-Abandoned	7-2
TSD	-Defective	7-2

T	TAP	7-1
TR	Rehabilitated	7-2
TRI	-Intruding	7-2
TRA	-Active	7-2
TRC	-Capped	7-2
TRB	-Abandoned	7-2
TRD	-Defective	7-2

IS	INTRUDING SEALING MATERIAL	7-9
ISSR	Sealing Ring	7-9
ISSRH	-Hanging	7-9
ISSRB	-Broken	7-9
ISSRL	-Loose	7-9

IS	INTRUDING SEALING MATERIAL	7-9
ISGT	Grout	7-9
ISZ	Other	7-9

L	LINE (of sewer)	7-11
LL	Left	7-11
LLU	Left Up	7-11
LLD	Left Down	7-11
LR	Right	7-11

L	LINE (of sewer)	7-11
LRU	Right Up	7-11
LRD	Right Down	7-11
LU	Up	7-11
LD	Down	7-11

A	ACCESS POINT	7-13
AMH	Manhole	7-13
AWA	Wastewater Access	7-13
ADP	Discharge Point	7-13
ATC	Tee Connection	7-13

A	ACCESS POINT	7-13
AOC	Other Special Chamber	7-13
AM	Meter	7-13
AWW	Wet Well	7-14
AJB	Junction Box	7-14

A	ACCESS POINT	7-13
ACO	Clean Out	7-14
ACOM	-Mainline	7-14
ACOP	-Property	7-14
ACOH	-House	7-14

A	ACCESS POINT	7-13
ACB	Catch Basin	7-14
AEP	End of Pipe	7-14

## Section 8—Miscellaneous Features Coding (Module 6D)

M	MISCELLANEOUS FEATURES	8-1
MCU	Camera Underwater	8-1
MGO	General Observation	8-1
MGP	General Photograph	8-1
MSC	Shape/Size Change (Sewer Dimension/Vertical/ Horizontal)	8-1
MJL	Joint Length Change	8-1

M	MISCELLANEOUS FEATURES	8-1
MLC	Lining Change	8-2
MMC	Material Change	8-2
MSA	Survey Abandoned	8-2
MWL	Water Level	8-2
MWLS	-Sag	8-2

M	MISCELLANEOUS FEATURES	8-1
MWM	Water Mark	8-2
MY	Dye Test	8-2
MYV	-Dye Visible	8-3
MYN	-Not Visible	8-3