

Understanding the miscellaneous material change code

Good collection system practices require regular inspections and ongoing maintenance. Recording the condition of assets requires a standard set of terms, procedures, and ratings. The Pipeline Assessment & Certification Program (PACP) helps fill this need.

The Defect Detective series, supplied by the National Association of Sewer Service Companies, provides an introduction to PACP and offers the opportunity to put your defect detective skills to the test.

Jerry Weimer

This installment focuses on the proper use of the Miscellaneous Material Change (MMC) code. MMC is used to describe a change in pipe material. This change can be either from the original material or from a new installation that runs from the end of original pipe to the next access point. The change in material should have occurred as part of the original construction and not as part of Point Repair Replacement (RPR), which is a repair that used a different pipe material than the original pipe material.



Material changes described by MMC occur for many reasons. For example, a small-diameter VCP pipe sewer might change to ductile iron pipe to pass under railroad tracks. Likewise, larger diameter pipes might change from reinforced concrete pipe (RCP) to brick (BR) because of the need for bends in the pipe.

The new pipe material is entered in the

remarks column on the PACP form using the material codes found in the header sheet (field 34). The predominant pipe material used during original construction already was entered in the header sheet in field 34.

The MMC code also is used in LACP and MACP. In LACP, it is used exactly the same as in PACP. In MACP, the code is used when there is a change in material within a component – for example if a chimney is part precast concrete (CR) and part brick (BR). The MMC code is not used when the change is for different components of a structure – for example a brick (BR) chimney and a precast concrete (CR) cone.

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Test your skills

1. If the pipe material changes from VCP (Vitrified Clay Pipe) to PVC (Polyvinyl Chloride) for 10 ft then changes back to VCP. Should it be coded as MMC?
2. If the pipe material changes from RCP (Reinforced Concrete Pipe) to CT (Clay Tile) and continues to the access point. Should it be coded as a repair?
3. How should the condition shown in the photograph above be coded?

Decoding January Defect Detective

What should be entered in Box A?

The operator should enter “Defect Wanders: 02” in Remarks based on the initial continuous defect being closed at 33.5 ft showing initial clock position of 12, reopened at 33.5 ft at 02 clock-position. Note that the CL defect (Circumferential Location) ends at the 03 clock-position at 45.8 ft, but the Circumferential Location field receives the 02 clock-position because this is where the defect began; the note of “Defect Wanders: 03” in the Remarks column tells the user that this point defect wandered one clock-position to end at the 03 clock-position.

Are the continuous defects in this example repeated or truly continuous?

The CL defects are considered truly continuous because they run along the length of the sewer for more than 3 ft in length and are uninterrupted.

What kind of defect is the FL defect at 20.2 feet?

The FL stands for fracture longitudinal and in this case, is a point defect because it is less than 3 ft in length. The “24” in the Value Dimension 1st column indicates the length of the FL is 24 in. or 2 ft.

How many clock positions did the CL defect ultimately change by?

The CL defect wandered from clock-position 12 to 3; therefore it wandered 3 clock-positions in total.

Distance (feet) (meters)	Video Ref.	Code Group/Descriptor/Modifier	Continuous Defect	Value		Joint	Circumferential Location		Image Ref.	Remarks
				Dimension 1st	2nd		%	At/From		
10.2		CL	S01				J	12		
20.2		FL		24			J	12		
33.5		CL	F01				J	12		A
33.5		CL	S02				J	02		
45.8		CL	F02				J	02		Defect Wanders: 03