

Assessing continuous defects that wander

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.

Laurie Perkins

Defects that change clock positions or vary in percent of cross-sectional area lost are called *wandering defects*. When a continuous defect wanders more than the established limits described below, the operator must close the initial code on the PACP reporting form and note the percentage-obstructed or matching initial clock positions (depending on the requirements of the code used). The operator also must enter "Defect Wanders" in the Remarks column. Wandering continuous defects can be either repeated (if they affect at least three-quarters of joints) or truly continuous (meaning they span more than 3 ft).

There are two limits that dictate how much a defect can wander before closing out the initial continuous defect and opening a new one. Operators should open a new continuous defect if

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Image Ref.	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
12.3		RMJ	S04			10	J	11	01	001	
22.2		RMJ	F04			10	J	11	01		Defect Wanders: 25%
22.2		RMJ	S05			25	J	10	01		
54.8		RMJ	F05			25	J	10	01		Defect Wanders: 35%

- the defect wanders more than two clock positions (for truly continuous defects) or
- the defect wanders more than 15% in cross sectional area (for all continuous defects).

As an example, consider the following conditions: The condition for roots medium joint (RMJ) is observed as a continuous defect at 12.3 ft with a value of 10% blockage. At 22.2 ft, the roots increase to beyond 25% blockage, which is 15% more

than the initial observation. This requires the operator to close the initial continuous defect code and open a new one. At 54.8 ft, the defect stops at 35% blockage. The details section of the PACP form should be completed as shown in the figure above.

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Test your skills

- What should be entered in Box A?
- Are the continuous defects in this example repeated or truly continuous defects?
- What kind of defect is the FL defect at 20.2 ft?
- By how many clock positions did the CL defect ultimately change?

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Image Ref.	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
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

Decoding November Defect Detective

Which modifier would be used to describe this photo?

The modifier should be Intruding (I). This actually is a Tap Break-In Intruding (TBI) and should also have the tap diameter, distance of intrusion, and location documented.



Which modifier would be used to describe this photo?

The modifier should be Property (P). The cleanout is located on private property. This is near the house, not inside, so the modifier House (H) would be incorrect.



Which modifier code is used to identify a tap that is obviously no longer in use?

The correct answer is Abandoned (B). It is important to note that the operator should have definitive evidence that the tap has been abandoned before utilizing this modifier code.

True or False – in LACP, the major difference from PACP modifiers is associated defect coding?

False, modifiers specifically used for lateral inspections (LACP) are generally the same as PACP main inspections.

What is another term for a cleanout installed directly on the main pipeline?

Lamp hole is the alternate term.