DICOM Correction Item

Correction Number CP-439	
Log Summary: Clarification of Structures with Excluded Volumes in RT	
Type of Modification Clarification	Name of Standard PS 3 2003
Rationale for Correction: The RT Structure Set object does not describe well the methodology for formatting and transferring a single structure containing an excluded volume. The method defined by the working group during the design of the object allowed for this only by using a "keyhole" technique, such that a single contour could be used for such cases. This Change Proposal adds a informative section to Part 3 to clarify the "keyhole" technique as the defined method for representing such contours.	
Sections of documents affected PS 3.3, C.8.8.6 (ROI Contour Module)	
Correction Wording:	

In PS 3.3, Section C.8.8.6 (ROI Contour Module), modify the following element in Table C.8-38 (ROI Contour Module Attributes):

Attribute Name	Tag	Type	Attribute Description
>>Contour Data	(3006,0050)	1C	Sequence of (x,y,z) triplets defining a contour in the patient based coordinate system described in C.7.6.2.1.1 (mm). Required if Contour Sequence (3006,0040) is sent. **See C.8.8.6.1 and C.8.8.6.3.**

In PS 3.3, after Section C.8.8.6.2, add the following section:

C.8.8.6.3 Representing Inner and Outer Contours on an Image

When a single ROI describes an excluded inner volume, this can be encoded with a single contour, using a "keyhole" technique. In this method, an arbitrarily narrow channel is used to connect the outer contour to the inner contour, so that it is drawn as a single contour. An example of such a structure is shown in Figure C.8.8.6-1

Points in space lying along the path defined by the contour are considered to be inside the ROI.

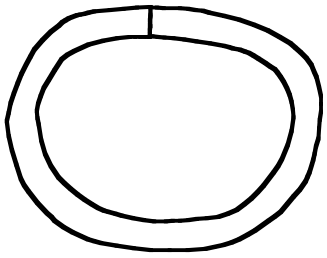

Figure C.8.8.6-1
Example of ROI with excluded inner volume