

# EXAMINATION BY PENETRANT TESTING OF ORGANS AND STRUCTURES LEVEL 2



## TARGET AUDIENCE

Non-Destructive Testing Managers.



## GOALS

- Establish operating procedures for penetrant testing
- Direct and provide specific technical assistance to Penetrant Testing operators (level 1).



## PREREQUISITES

- Visual acuity checked, one year as Penetrant Testing Operator;
- To have attended d the IFF MA 16 training "Penetrant Testing of Organs and Structures - Level 1".



## EDUCATIONAL MODALITIES

- Training combining theory and practical application in a workshop equipped with several penetrant testing stands on railway parts.
- All standard equipment and apparatus will be used during the training.



**DURATION: 4,5 Days**



## PROGRAM

- Understand the purpose of NDT and its evaluation context (organization, documents, facilities...);
- Distinguish the different metallurgical defects affecting organs and structures according to their elaboration and use;
- Know the physico-chemical phenomena involved in penetrant testing, be able to describe simply the principle of penetrant testing;
- Detect anomalies during the tests and verifications during the phases related to the light phenomena (grading and photometric units, photometric spectrum...);
- Use the tools and accessories during a study in order to draw up a test sheet;
- Classify the different penetrant testing ranges and to propose a method for the elaboration of a test sheet according to the characteristics of the organ to be tested;
- List the necessary products, implement the operations to be carried out during the test and define the illumination conditions to draw up a test sheet.

• **Level 2 assessment:** Assessment of skills acquired at the end of training ➔ **Yes**