



# API Training Programs

## API 571 Corrosion and Materials Professional

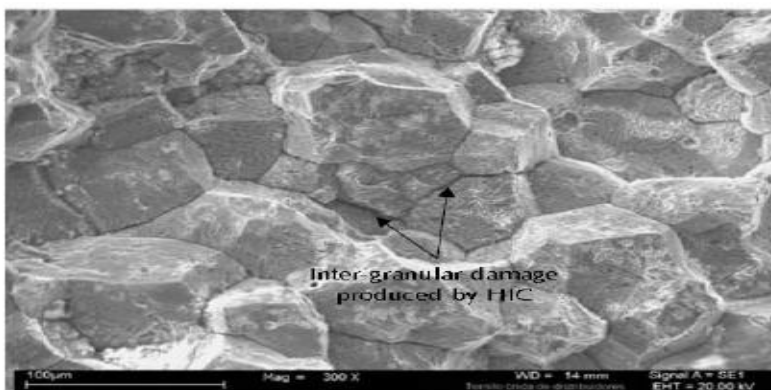
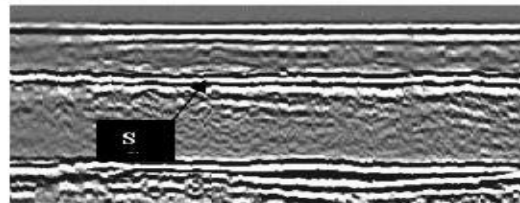
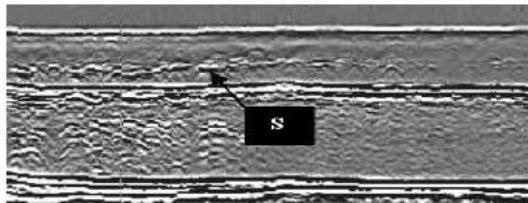
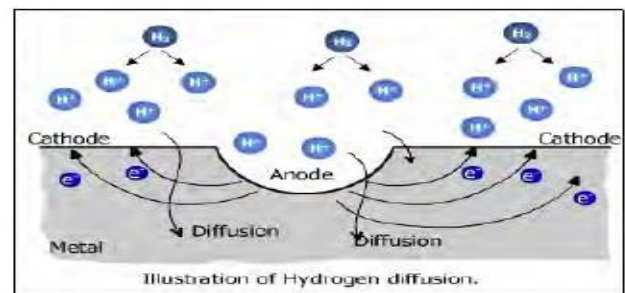


Figure 1. Fragile fracture, produced by inter-granular cracking due to the presence of hydrogen in the metal's structure





## ***Described the API 571 Training Program***

API welcomes highly specialized inspectors, corrosion engineers, chemical engineers and other professionals across the entire petrochemical industry to obtain the API 571 Corrosion and Materials certification as a validation of their profound knowledge of corrosion processes.

The API 571 certification will add significant value to your professional credentials, demonstrating to your employers and clients that you have obtained a high level of proficiency and understanding in this important field.

API 571 certification is valid for a three-year term.

Exam questions for the API 571 Corrosion and Materials certification are derived from API RP 571 Damage Mechanisms Affecting Fixed Equipment in the Refining Industry.

The Body of Knowledge for the API 571 exam consists of the entire API RP 571, 2nd edition (2011), with the exception of the following sections: 1.1, 3.1, 4.1 and 5.2

The API 571 Corrosion and Materials certification exam is closed-book. Paper and reference materials are not allowed into the examination

## ***Are you qualified to take the API 571 exam?***

If you hold a current API 510, 570 or 653 certification, you automatically qualify to take the API 571 Corrosion and Materials certification exam.

If you do not hold a current API 510, 570 or 653 certification, then qualification is based on a combination of your level of education and industry experience acquired within the last 10 years.



Prior to submitting an application, please use the table below to determine if you qualify to take the API 571 exam.

Education	Minimum Years of Experience	Description of Experience Required
BS or higher in engineering or technology	1 year	Any experience in the petrochemical industry
2-year degree or certificate in engineering or technology	2 years	Any experience in the petrochemical industry
High school diploma or equivalent	3 years	Any experience in the petrochemical industry
No formal education	5 or more years	Any experience in the petrochemical industry

## ***Outline of API 580 API 571 Corrosion and Materials Professional certification examination***

### **A. GENERAL DAMAGE MECHANISMS – ALL INDUSTRIES**

- I. Mechanical and Metallurgical Failure Mechanisms
- II. Uniform or Localized Loss of Thickness
- III. High Temperature Corrosion [ $>400^{\circ}\text{F}$  ( $204^{\circ}\text{C}$ )]
- IV. Environment – Assisted Cracking

### **B. REFINING INDUSTRY DAMAGE MECHANISMS**

- I. Uniform or Localized Loss in Thickness Phenomena
- II. Environment-Assisted Cracking

### **C. Other Mechanisms**

### **D. Process Unit PFD's**



## **OVERALL OBJECTIVE OF THE TRAINING API 571 PROGRAM**

- ✚ Be prepared for the next API 571 exam and have enough knowledge and skills to pass in order to receive the API 571 Inspector certificate.
- ✚ Have a general background on the scope, organization and use of API 571 and be able to review the standards and other references related to it.
- ✚ Understand general damage mechanisms applicable to the refining industry and be able to identify their features and functions
- ✚ Determine the various mechanical and metallurgical failure mechanisms such as brittle fracture, stress rupture, steam blanketing, cracking, thermal shock, corrosion and fatigue.
- ✚ Identify general damage mechanisms on uniform or localized loss thickness and explain the various types of corrosion related to it.
- ✚ Describe damage mechanisms on high temperature corrosion including oxidation, sulfidation, carburization and metal dusting.
- ✚ Know refining industry damage mechanisms used in uniform or localized loss in thickness phenomena.
- ✚ Describe refining industry damage mechanisms for environment-assisted cracking and be able to identify the other types of mechanisms.

## **LIST OF REFERENCES**

- ✚ **The Body of Knowledge for the API 571 exam consists of the entire API RP 571, 2nd edition (2011), with the exception of the following sections: 1.1, 3.1, 4.1 and 5.2**



## API 571, 2021 Calendar

API 571 Damage Mechanisms Affecting Fixed Equipment in the Refining Industry Certification Preparatory			
Course ID	ST-API-05	City	Jeddah
Duration	5 Days	Fees (Seminar with Exam plus Books, classroom +coffee break)	SAR 11,000.00
Start Date		End Date	
07-Nov-21		07-Nov-21	

Free seats if available (without exam): **2**

For more enquiries, please Contact.

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