API 570 exam study checklist

Built from the API 570 Body of Knowledge, the February and June 2027 exam windows (read 23 Oct 2026 on API's site). 170 questions (140 scored, 30 pretest) in 390 minutes: 110 closed-book, then 60 open-book. In person at a test center.

One line per thing to be able to do, grouped under the five sections API lists for the API 570 exam. API publishes no section weights, so give every section a pass. Tick a line when you can do it without notes, and practice section I with the book shut.

I. Calculations for thickness measurements, inspection intervals and piping integrity

- ☐ Work a long-term and a short-term corrosion rate from a set of thickness readings, then the remaining life, and say which rate you used and why.
- ☐ Set the thickness measurement and external visual inspection intervals for a piping circuit from its remaining life and class.
- ☐ Find the weld joint quality factor of a longitudinal seam and the casting quality factor, including the increase that extra examination allows.
- ☐ Find the minimum required thickness of straight pipe and of a permanent blank, and the maximum working pressure of corroded pipe at the next inspection, adjusting for corrosion allowance.
- ☐ Work a hydrostatic or pneumatic leak test pressure, and say what each test involves.
- ☐ Find the lowest metal temperature at which a material is exempt from impact testing, and the impact values it must meet when it is not.
- ☐ Say which welds need preheat or heat treatment and at what temperature, and work the thermal expansion of a run between two temperatures.
- ☐ Find a flange's working pressure at a temperature, its maximum temperature at a pressure, its test pressure and minimum dimensions, and the class to choose for stated conditions.

II. Welding procedure and qualification evaluation (ASME IX, B31.3 Chapter V, API 570, RP 577)

- ☐ Say what a welding procedure specification and a procedure qualification record each hold.
- ☐ Tell an essential variable from a non-essential one, and say when a change needs requalification.
- ☐ Check a procedure against its qualification record for a stated piping job.
- ☐ Say what a welder performance qualification covers and when it lapses.
- ☐ Describe the welding inspection steps before, during and after welding.

III. Nondestructive examination (ASME V, B31.3, API 570)

- ☐ Name the examination methods and what each one finds: visual, liquid penetrant, magnetic particle, radiographic, ultrasonic.
- ☐ Choose a method for a stated flaw type and location in piping.
- ☐ Say what examination a repair or alteration to piping needs.
- ☐ Describe thickness measurement methods and what limits each one.
- ☐ Find where acceptance requirements are set out in your own books.

IV. Practical knowledge - general

- ☐ Lay out an inspection plan for a piping system from its service, history and damage risks.
- ☐ Sort piping into classes and say what the class changes about inspection.
- ☐ Tell a repair from an alteration from a rerating, and say what each needs before work starts.
- ☐ Describe the steps and records of a pressure test.
- ☐ Say who holds which duties: owner-user, inspector, engineer and repair organization.

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V. Practical knowledge - specific (API 570, RP 571 listed mechanisms, RP 574, RP 576, RP 578, B16.5, PCC-2)

- ☐ Name each damage mechanism on the current list and the service conditions where it tends to appear.
- ☐ Say where each mechanism usually forms in a piping circuit and how it is commonly found.
- ☐ Describe how to inspect piping components, supports, injection points and dead legs.
- ☐ Describe how relief devices are inspected and tested.
- ☐ Say how material verification works for new and existing piping.
- ☐ Name the listed repair articles and what each one is for.

Formulas to work by hand

Thickness in inches and time in years. Use one location for every reading and one unit system throughout.

Corrosion rate

long term = (first thickness - current thickness) / years between those two readings
short term = (previous thickness - current thickness) / years between the last two readings

Remaining life

metal available = current thickness - required thickness
remaining life = metal available / corrosion rate

Formulas as worked in our remaining life and short-term vs long-term corrosion rate guides. Required thickness comes from your own code copy. Remaining life is a projection, not the inspection interval.

Check your numbers

Corrosion rate calculator: longseam.com/tools/corrosion-rate-calculator
Remaining life calculator: longseam.com/tools/remaining-life-calculator
Study plan by exam date: longseam.com/tools/api-study-plan

Read next

API 570 exam guide: longseam.com/guides/api-570-exam-guide
API 570 practice test guide: longseam.com/guides/api-570-practice-test
Remaining life guide: longseam.com/guides/remaining-life
Short-term vs long-term corrosion rate: longseam.com/guides/short-term-vs-long-term-corrosion-rate
API 570 exam schedule and fees: longseam.com/guides/api-570-exam-schedule-and-fees

How to use this checklist

- Take the free 10-question check first and start with the section it shows as weakest.
- Work each formula by hand with fresh numbers, then check the answer with the calculator.
- For the open-book part, practice finding each line in the publications listed for your exam window.

Ready to test yourself? 10 free API 570 questions

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