

# NDT Firm Vetting Guide

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How to verify certifications, evaluate capabilities, and avoid unqualified inspection providers

- ✓ ASNT SNT-TC-1A, NAS 410, CP-189, and ISO 9712 certifications explained
- ✓ Step-by-step credential verification process
- ✓ 12 red flags that indicate an unqualified NDT provider
- ✓ Sample vetting questionnaire you can send to providers

# Understanding NDT Certification Programs

NDT personnel certification is governed by multiple overlapping standards, and the right one depends on your industry. Understanding the certification landscape is essential because hiring a technician certified under the wrong standard can invalidate your inspection results and put you on the wrong side of a code audit.

## Certification Programs Overview

Standard	Issuing Body	Type	Industries
SNT-TC-1A	ASNT	Recommended Practice (employer-based)	Oil & gas, petrochemical, general industry
CP-189	ASNT	Standard (employer-based, more prescriptive)	Nuclear, aerospace, critical applications
NAS 410 / EN 4179	AIA (Aerospace Industries Association)	Standard (employer-based)	Aerospace, defense
ISO 9712	ISO (via national certification bodies)	Central certification (individual-based)	International, some US applications
ASNT Central Certification (ACCP)	ASNT	Central certification (individual-based)	Portable credential across employers

### Key Distinction

SNT-TC-1A and NAS 410 are *employer-based* programs — the certification belongs to the employer's Written Practice, not the individual. When a technician changes employers, they must re-qualify under the new employer's program. ACCP and ISO 9712 are *central certifications* that follow the individual.

# Certification Levels Explained

## Three-tier hierarchy

Level	Title	Capabilities	Typical Requirements
<b>Level I</b>	Technician	Perform inspections per written instruction, record results	Formal training (40+ hrs per method) + OJT (varies by method: 210-1,200 hrs under SNT-TC-1A) + pass general/specific/practical exams
<b>Level II</b>	Technician (Senior)	Set up equipment, interpret results, write reports, train Level I	Level I experience + additional OJT (630-1,680 hrs cumulative under SNT-TC-1A) + pass exams. The standard hire for most inspection work.
<b>Level III</b>	Senior Engineer / Manager	Develop procedures, interpret codes, approve techniques, certify Level I/II	Level II experience (1-4 years depending on education) + pass ASNT Level III Basic + Method exams. Typically consultant or supervisory role.

## SNT-TC-1A vs. NAS 410 Training Requirements

Method	SNT-TC-1A Level II (Formal Training + OJT)	NAS 410 Level II (Formal Training + OJT)
Liquid Penetrant (PT)	12 hrs + 210 hrs	32 hrs + 400 hrs
Magnetic Particle (MT)	12 hrs + 630 hrs	32 hrs + 800 hrs
Ultrasonic (UT)	40 hrs + 630 hrs	80 hrs + 1,200 hrs
Radiography (RT)	40 hrs + 630 hrs	80 hrs + 1,200 hrs
Eddy Current (ET)	40 hrs + 630 hrs	80 hrs + 1,200 hrs

### **NAS 410 is NOT interchangeable with SNT-TC-1A.**

A technician certified under SNT-TC-1A does not meet NAS 410 requirements without additional training and OJT hours. If your contract or code specifies NAS 410, accepting SNT-TC-1A credentials is a non-conformance.

# Code Requirements by Industry

## Which certification standard does your project require?

Industry / Application	Governing Code	Required Certification Standard	Key Requirements
ASME Boiler & Pressure Vessel	ASME Section V	SNT-TC-1A or CP-189 (per ASME Section V, Article 1)	Employer's Written Practice required
Pipeline (new construction)	API 1104	SNT-TC-1A (referenced in API 1104 Section 9)	Level II minimum for interpretation
Pipeline (in-service)	API 570 / API 510	SNT-TC-1A or CP-189	Often combined with API inspector certification
Structural Steel	AWS D1.1	SNT-TC-1A (per AWS D1.1 Clause 6)	UT/RT technicians must be Level II minimum
Aerospace (primes & suppliers)	NAS 410 / Nadcap	NAS 410	Nadcap audit for supplier qualification
Nuclear	ASME Section V + NRC requirements	CP-189 (recommended by NRC)	Plant-specific qualification programs
Storage Tanks	API 650 / API 653	SNT-TC-1A	Level II for in-service inspection
DOT / PHMSA Pipelines	49 CFR 192/195	SNT-TC-1A or employer qualification	Must meet operator qualification (OQ) requirements

### **Always check the contract and governing code first.**

The certification standard required is dictated by the code of construction or in-service inspection code — not the NDT firm's preference. Ask: "Which code governs this inspection, and which personnel qualification standard does it reference?"



# How to Verify NDT Firm Credentials

## Step-by-step verification process

Request the firm's Written Practice (required under SNT-TC-1A, CP-189, and NAS 410). Every employer-based NDT program must have a documented Written Practice that defines training, examination, certification, and recertification requirements. If they can't produce one, stop here.

Request certification records for the specific technicians assigned to your project. Verify Level, method, and certification date. Certifications expire — SNT-TC-1A requires recertification every 5 years (3 years for Level III) with annual visual acuity exams.

Verify ASNT membership and credentials. ASNT Level III certification can be verified through ASNT. ACCP holders can be verified through the ASNT central certification database.

For aerospace work, verify Nadcap accreditation. Search the Nadcap supplier database (eAuditNet) to confirm the firm holds current Nadcap NDT accreditation for the specific methods required.

Check for third-party accreditation. Some firms hold ISO 17025 laboratory accreditation (for lab-based NDT) or ISO 9001 quality management certification. These indicate documented quality systems but do not replace personnel certification.

Request proof of calibrated equipment. All NDT equipment must be calibrated per the governing code. Ask for current calibration certificates for the specific instruments that will be used on your project.

Verify insurance. Request certificates of general liability (\$1M minimum), professional liability / E&O, and workers' compensation. For nuclear or high-value work, \$5M+ umbrella coverage is standard.

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# 12 Red Flags of an Unqualified NDT Provider

## 1 No Written Practice or refuses to share it.

Every employer-based NDT certification program requires a documented Written Practice. If the firm can't produce one, their personnel certifications are invalid.

## 2 Technicians certified under the wrong standard.

SNT-TC-1A technicians performing aerospace work that requires NAS 410, or vice versa. The certification must match the code requirement.

## 3 Expired or lapsed certifications.

SNT-TC-1A certifications expire every 5 years. Level III exams expire every 3 years. Annual vision exams are required. Lapsed = uncertified.

## 4 Single-method firm claiming multi-method capability.

A firm that specializes in UT but also "offers" RT, ET, and PAUT may be subcontracting without oversight. Ask who performs each method and verify their certifications individually.

## 5 No calibration records for equipment.

Every UT flaw detector, RT source, and ET instrument must have current calibration traceable to national standards. No calibration certificate = unreliable results.

## 6 Quotes significantly below market rate.

If a quote is 40%+ below competitors, the firm is likely cutting corners — undertrained technicians, inadequate equipment, or insufficient time allocation to perform thorough inspections.

## 7 No dedicated Level III on staff or under contract.

Level III oversight is required for procedure development, technique validation, and resolving interpretation disputes. A firm operating without Level III support is flying blind.

## 8 Cannot produce sample reports or procedures.

Qualified firms have standardized report templates and written inspection procedures for common applications. Inability to provide samples suggests ad hoc operations.

**9 No insurance or inadequate coverage.**

A missed flaw that leads to equipment failure or environmental release can cost millions. Professional liability / E&O insurance is non-negotiable.

**10 Pressure to accept results without documentation.**

Verbal results, handwritten notes on scrap paper, or "we'll send the report later" are unacceptable. Results must be documented per the governing code before the technician leaves the site.

**11 No safety program for radiographic work.**

RT requires a Radiation Safety Officer (RSO), radiation surveys, controlled exclusion zones, and personnel dosimetry. Firms that treat radiation safety casually create liability for your facility.

**12 Technician experience doesn't match the application.**

A Level II UT technician certified in thickness measurement is not qualified to perform weld inspection without additional training and OJT specific to weld inspection techniques.

# When to Hire Which Level (Decision Matrix)

## Two-column layout

### HIRE LEVEL II (Standard Inspection Work) WHEN

- Routine in-service inspection (thickness surveys, weld inspection)
- New construction inspection per written procedure
- Standard code compliance (AWS D1.1, API 1104, ASME Section V)
- Production inspection with established accept/reject criteria
- Heat exchanger tubing inspection (ET)
- Turnaround / shutdown inspection campaigns

### HIRE LEVEL III (Expert / Consultant) WHEN

- Developing new inspection procedures or techniques
- Fitness-for-service evaluations (API 579-1)
- Resolving interpretation disputes between parties
- Qualifying inspection personnel under a new Written Practice
- Advanced flaw characterization and remaining life assessments
- Root cause failure analysis involving NDT evidence
- Nadcap audit preparation and response
- Expert witness testimony on NDT-related matters

## Cost comparison

Factor	Level II Technician	Level III Consultant
Hourly rate	\$85-\$200/hr	\$150-\$400/hr
Day rate (10-hr shift)	\$850-\$2,000	\$1,500-\$4,000
Can interpret results	Yes (per written procedure)	Yes (independently, per code)
Can develop procedures	No	Yes
Can certify personnel	No	Yes

<b>Factor</b>	<b>Level II Technician</b>	<b>Level III Consultant</b>
Can resolve code disputes	No	Yes
Typical engagement	Days to weeks	Hours to days

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# Sample Vetting Questionnaire

## NDT Firm Vetting Questionnaire — Send This Before Awarding Work

*Copy and send these questions to any NDT firm you're evaluating. Their answers — and their willingness to answer — will tell you everything you need to know.*

### 1. Certifications & Qualifications

- What personnel certification standard do you operate under (SNT-TC-1A, CP-189, NAS 410)?
- May we review your Written Practice?
- What Level II and Level III certifications do your assigned technicians hold? In which methods?
- When were those certifications last renewed? Are annual vision exams current?
- Do you hold ASNT Level III certification in-house, or is it contracted?

### 2. Experience & Capabilities

- How many years has your firm been providing NDT services? How many technicians on staff?
- Do you have experience in our industry (oil & gas / aerospace / nuclear / structural / pipeline)?
- What NDT methods do you perform in-house vs. subcontract?
- Can you provide references from clients in our industry sector?

### 3. Equipment & Calibration

- What equipment will be used for this project? (Manufacturer, model, serial number)
- Are current calibration certificates available for all instruments?
- What is your calibration interval and who performs calibrations?
- What backup equipment is available if primary equipment fails on-site?

### 4. Quality & Documentation

- Do you hold ISO 9001, ISO 17025, or Nadcap accreditation?
- Can you provide sample inspection reports and procedures for the methods required?
- What is your report turnaround time (standard and expedited)?
- How do you handle nonconforming results or ambiguous indications?

### 5. Safety & Insurance

- What is your EMR (Experience Modification Rate) for workers' compensation?
- Do you have a dedicated Radiation Safety Officer for RT work?

- What are your general liability, professional liability, and workers' comp policy limits?
- What is your firm's TRIR (Total Recordable Incident Rate)?

## **6. Logistics & Pricing**

- What is your billing model (hourly, per weld, day rate, lump sum)?
- What additional charges apply (mobilization, per diem, overtime, standby, consumables, reports)?
- What is your availability for our required dates?
- What is your cancellation / rescheduling policy?

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