

What is “PCS: Protective Coating Specialist” Certificate & Certification?

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Meritocracy

Firstly, Let's talk about the word **Meritocracy** since it is literally the backbone of any civilization in the world today. *Why?*

As its Latin roots suggest (*merit*, from *Latin* *mereō*, and *-cracy*, from *Ancient Greek* *κράτος* *kratos* 'strength, power'), it is simply meaning that **governing society by individual people selected according to merit, which is indeed talent, effort, and achievement, rather than wealth or social class.**¹ In other words, Meritocracy requires that all positions and goods be distributed solely in accordance with individual merit, therefore preventing discrimination such as gender, race, ethnicity, and nation.

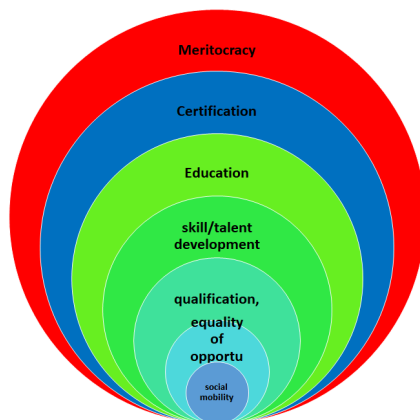
When we look at history, we can easily see that the success of the US, most European countries, and Japan can be attributed to their governing systems such as Democracy and **Meritocracy**, giving individuals the chance to achieve their status by their **own efforts, knowledge, experience, and abilities.** (The United States likes to think of itself as the very embodiment of meritocracy: a country where people are judged on their individual abilities rather than their family connections².)

So, what's **Meritocracy** got to do with **Certification**? To answer this question, first, let's look at the definition of Certification:

Certification

From the Latin root *-cert-* "certain, sure, true", **Certification** is described as *the* formal attestation or confirmation of certain characteristics of an object, person, or organization. This confirmation is often, but not always, provided by *some form of external review, education, assessment, or audit.*³ To give you an example, high school, college or university diplomas are a kind of certification verifying that the individuals completed their education successfully or at least by a passing grade.

However, here we use the term “**Certification**” in a narrower sense around the historical concept of **TWI (Training Within Industry)**⁴ which is considered to be the origin of all current certification programs in the various industries worldwide. (*As a side historical information, TWI was first designed by the US Army program to provide trained and skilled personnel during World War II between 1940-1945. Later this certification concept was used as an inspiration in different countries at the different continents including Europe, Asia, Africa, Australia, and Japan, where the famous Kaizen and the Toyota Production System developed and used with success all over the world.*)



The Relationship between “Meritocracy” & “Certification”

Though the Meritocracy term involves several different concepts such as *education, achievement, skill/talent development, qualification, equality of opportunity, ethical rules and social mobility*, the **Certification** concept plays a crucial role in **Meritocracy**. This crucial role is due to this certification concept utilized for recognizing suitable individuals' **knowledge, ability, talent and experience** in a specific area/field via examinations, *assessments, or audits.*⁵

¹ <https://en.wikipedia.org/wiki/Meritocracy>

² <https://www.economist.com/special-report/2004/12/29/ever-higher-society-ever-harder-to-ascend>

³ <https://en.wikipedia.org/wiki/Certification>

⁴ https://en.wikipedia.org/wiki/Training_Within_Industry

⁵ https://en.wikipedia.org/wiki/Professional_certification

WHY the NEED for the Professional Certificates in the Various Industries?

Certification provides *independent verification* of a certain level of expertise in a particular area; primarily, this is given from reputable industry societies or associations. Basically, it means you have completed the steps required to receive a specific designation.

Today industry professionals seek professional certifications mainly for the following reasons:

- Validation of knowledge
- Increased marketability
- Enhanced reputation, credibility, and confidence
- Earned respect

“PCS: Protective Coating Specialist” Certification

Aim and Scope

This is a professional certification program developed by reputable **Corrosion & Protective Coating** organizations in the US, namely [NACE International](#) and [SSPC](#), for coatings professionals who have in-depth knowledge of the principles and practices of industrial coatings technology.

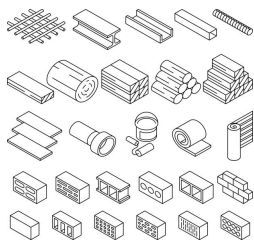
The definition of the **Protective Coatings Specialist** can be summarized as *a person qualified by education and experience to perform responsible charge work at an engineering level in the field of corrosion control by means of protective coatings.*

The PCS certification program deals with a broad range of topics with which the *experienced coatings consultant, inspector, manager, specifier and project manager* should be familiar. Therefore, the PCS certification program can be considered as **a more inclusive and a more specialized professional certification program covering the already existing coating inspector programs**⁶ i.e. [PCI](#) and [CIP](#), which are *Protective Coating Inspector program: PCI* of [SSPC](#) and coating inspector program of [NACE International](#).

The job of a Coatings Specialist may include any or all of the include below:

1. Supervise/perform coating **inspection**
2. Write painting/coating **specifications**
3. Interpret & apply coating specifications
4. Determine/recommend appropriate coatings for specific situations
5. Supervise coating **inspection**
6. Supervise coating **application**
7. Supervise **surface preparation**
8. Perform/supervise **failure investigation**
9. Perform/supervise **failure analysis**
10. Perform/supervise **painter qualification**
11. Know/enforce/observe **safety & environmental** procedures, rules, and regulations

In addition to these responsibilities, a certified PCS should have comprehensive knowledge of **coating economics** and technical issues involved in **material science** i.e **metals** (*not just carbon steel, other steel metal types as well*) **concrete, polymers, plastics and composites.**



⁶ Remember that a **painting/coating inspector** is a professional whose **primary responsibilities & tasks** are to *Read, Observe, Inspect* and *Document*. Most of the time he/she is **not expected to make a decision** on the topics listed above.

How to earn this certification?

What makes this certification program different from others and highly respectable is, PCS candidates are firstly required to pass a **comprehensive examination** on a wide-range of topics about the use of *marine & industrial coatings for controlling corrosion by protective coatings*. However, this may not be adequate since the PCS certification programs may also prerequisites such as **several years of painting/coating industry work experience** (up to 15 years of verifiable protective coatings-related work experience, depending on the PCS certification program), **professional training** and **education**, and may require the **successful completion** of **specific coating-related trainings**, depending on the career pathway chosen.



Moreover, PCS-certified professionals are required to renew their certification every 4 years. However this is not just paying renewal fee. In addition, renewal depends on continuing involvement in the protective coatings industry, including education and professional experience.

Some of the main topics that a PCS candidate are required to know are:

- Fundamentals of Corrosion & Corrosion Control
- Coating Types & Their Mechanisms of Protection
- Selection of Coatings and Special Linings
- Surface Preparation For Painting/Coating/Lining
- Application of Coatings
- Coatings for Industrial Steel Structures
- Coating of Concrete Surfaces
- Inspection & Quality Control inc. Lab. Testing
- Coatings in conjunction with cathodic protection
- Management of Coatings Projects
- Standards & Specifications for Coatings Projects
- Achieving Economic Protection by Coatings
- New Construction & Planned Maintenance Painting
- Contracts & Documentation for Coatings Projects
- Coating Failures
- Regulations & Safety for Coatings Projects

WHERE & HOW is it used in the global industry ? WHICH Sectors and Projects?

First and foremost, the PCS individual gains professional credibility from the leading coatings industry organization, and professional recognition from industry peers. Also, many international coatings organizations use PCS certification as either a prerequisite for employment or as a contract requirement.



The PCS certification is also quite a demandable certification amongst facility owners worldwide, who require PCS **review of Contractor Work Plans** or stamp of **approval** on **coating specifications** or **coating selection choices**, tasks that coating inspectors may not be trained to accomplish such as:

- **Writing Project Documents** i.e. *Specification, Contract and/or Application Procedures* in a correct fashion
- **Selecting** appropriate **paints / coatings economically** for specific situations
- Performing **Failure analysis** (by the use of *specialized engineering standards, tools and tests*)
- **Preparing** for Paint/Coating **Litigations**
- Contract/Project **Planning & Management**
- **Supervising** application steps of *surface preparation* and *painting/coating* application
- Enforcing **Safety** and **environmental** procedures, rules, and regulations

CONCLUSION

In today's modern world, any technical profession has certainly so many details to consider in order to be successful, therefore specialization is crucial. **Protective Coating industry** is no different ; specializing in this industry may be quite tough but rewarding in terms of tackling multi-facet issues.



Let's think that way: *If you have a fatal illness like **cancer** or **a brain tumor**, would you prefer a generalist doctor or a **specialist doctor** for your medical examination and/or surgery?*

By the same token, a certified protective coating specialist PCS is probably the right person for your painting or protective coating projects. Currently⁷, you can find or verify the PCS certified personnel worldwide from the databases below:

<https://sspc.org/search-certifications/>

<https://naceinstitute.org/certification-resources/find-a-certified-professional>

Acknowledgments

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Ms. Kaci Lamb

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- **Mr. Steve Poncio**, PCS, Poncio Coatings Consulting (Past Treasurer, NACE International)



Mr. Michael Kline



Mr. Steve Poncio

⁷ As [NACE International](#) and [SSPC](#) merges into [AMPP: The Association for Materials Protection and Performance](#), the certification search websites link may change in the future.